6.1 Introduction to the Department and Update

The Department Physics & Astronomy has a long and essential history at the university, having graduated our first physics major, Mr. Hayes Holman, in 1929. A primary component of the department’s purpose is to provide instruction and knowledge in pure and applied physics and astronomy at both the undergraduate and graduate levels in order to provide high-quality, educated scientists to government and industry, to provide quality science teachers to the public schools and institutions of higher education, and to prepare students for advanced graduate studies in physics, astronomy, or related fields. We accomplish this through teaching courses for majors and for University Studies students, through sponsoring seminars and other general educational experiences, involving students in research activities, and by providing outreach services for local schools and the community. The department faculty, students, and postdoctoral fellows conduct scholarly research to create new knowledge that advances our understanding of the nature of the physical world, and to disseminate that new knowledge via publications in the peer-reviewed literature, presentations at national and international conferences, and organization of national and international meetings and workshops. Participation in the research enterprise by undergraduate and graduate students is a critical component of our departmental mission. Since 2011 we have hosted a Research Experiences for Undergraduates (REU) summer intern program, funded by the National Science Foundation (Dr. Bao-An Li, PI).

In the past few years, new faculty hires have shifted the research focus of the department in the direction of astronomy and astrophysics. We now have an internationally recognized Nuclear Theory and Nuclear Astrophysics group headed by Drs. Bao-An Li (named TAMUS Regents Professor in 2012) and Carlos Bertulani (hired in the Fall of 2007 and named a Fellow of the American Physical Society in 2012). In 2010 we hired astronomer Dr. Kurtis Williams, and in the fall of 2012 Drs. William Newton and Matthew Wood were hired, the former to lead our physics education program, and the latter as department head. In recognition of this expansion of our research expertise, the name of the department was changed from Physics to Physics and Astronomy in 2010, an astronomical observatory was constructed in 2008 about 5 miles south of campus, and in 2009 the department implemented a minor in astronomy. In Fall 2012, A&M Commerce joined the Southeastern Association for Research in Astronomy (SARA) Telescope Consortium, and is now a full partner entitled to ~2 months per year of observing time on 1-m-class telescopes located at Kitt Peak National Observatory (KPNO) in Arizona, and Cerro Tololo International Observatory (CTIO) in Chile.

**Mission:** To foster Innovation and Discovery by providing a nationally-competitive foundation for careers in science and technology as well as for advanced study in physics and astronomy through the acquisition of problem-solving skills and participation in the research experience.
Vision: The Department of Physics and Astronomy is dedicated to high standards of excellence in teaching, scientific discovery, and service to our community. We provide a high quality and constantly adapting curriculum that equips all university students for the rapidly changing needs of and challenges facing our nation and the world. Our faculty, graduate students, and undergraduate students conduct innovative research of international renown.

6.1.1 Actions Taken in Response to Recommendations Made in Previous Five-Year Review

The most recent Undergraduate Program Review for our department was 2008. The recommendations and actions taken in response to those recommendations are:

- ** Recommendation: Add references to research, creation of knowledge in the Mission Statement. Add references to impact on society, recruitment, dissemination of science.”** Action: revised mission statement as above. The current mission statement is brief, but contains the essence of our purpose.
- ** Recommendation: Add a vision statement.** Action: Vision statement added (see above).
- ** Recommendation: Need additional research-active faculty members.** Action: Two additional faculty members have been hired, both with significant current research activities.
- ** Recommendation: Investigate possible “bridge” position with national labs, observatories, research centers, or industry.** Action: In Fall 2012, A&M Commerce joined the SARA Consortium, giving our faculty and students guaranteed access to research grade telescopes at two of the world’s premier observatories.
- ** Recommendation: Get active in Texas Section of American Physical Society by (i) increasing student and faculty attendance of meetings, and (ii) hosting the TS-APS fall meeting.** Action: Faculty and students now regularly attend the TS-APS meetings, and A&M-Commerce hosted the Fall 2011 Meeting of the TS-APS.
- ** Recommendation: Need to standardize teaching loads and develop mechanisms to provide release time for faculty with research grants.** Action: Faculty with active research grants including external funding generating overhead are provided release time to the extent possible. The Faculty Senate is currently (FY13) promulgating a new institutional workload policy, and we no longer have teaching overloads in the College of Science, Agriculture, and Engineering.
- ** Recommendation: Develop clear guidelines regarding the criteria for tenure and promotion.** Action: The department follows A&M Policy 12.01.99.R0.01.
- ** Recommendation: Develop clear guidelines regarding the assignment of teaching loads.** Action: teaching loads are nominal for all faculty. Those faculty who have substantial external funding that generates overhead may receive reduced teaching loads, as may faculty whose service activities are significantly above nominal expectations.
- ** Recommendation: Assess need for more experimentalists in the faculty; lobby for substantial start-up funds.** Action: Of the 3 hires since this recommendation, one is an
observational astronomer (Williams), one a numerical experimentalist focusing on science education, and one who pursues both observational and numerical projects.

- Recommendation: Create larger travel budget. Action: Currently, we allocate roughly $1,000 per year per faculty member for travel or equipment purchases.
- Recommendation: Be pro-active in the recruitment of minorities; use Hispanic faculty to host parent’s nights in Spanish. Action: The department has not hosted parent’s nights in Spanish.
- Recommendation: Define target areas for recruitment, local and international. Action: The department is currently developing a new brochure, and the new department head and retired department head Dr. Ben Doughty have visited 3 local Junior Colleges. Dr. Wood will return to those 3 Junior Colleges in the Spring of 2013 to recruit transfer students using 5 guaranteed transfer scholarships ranging between $7,000 and $11,000.
- Recommendation: Host “Open House” and physics activities such as telescope nights, general audience talks. Action: We currently host 3-4 Open House events at the local observatory per academic year, and will soon implement a “Astronomy and Astrophysics Public Lecture Series.”
- Recommendation: Improve stipends for GAs, obtain tuition waivers, etc. Action: stipends and tuition waivers have increased significantly since the previous report, but not nearly enough to be competitive in the current market. Our GA stipends are currently $8,000/yr, and should be nearly double that amount.
- Develop joint M.S./Ph.D. programs with TAMU at College Station to motivate students to stay at Commerce for the MS. Action: This recommendation has not been implemented.
- Recommendation: To improve retention of UG students: (i) Hire HG students as research or teaching assistants, (ii) have UG students present in research conferences (TS-APS), and (iii) Establish co-op opportunities for UG in regional industry. Action: Items (i) and (ii) have been implemented, but (iii) has not yet been implemented.
- Recommendation: Consider requiring three faculty members in thesis committees, one from outside the department. Action: We typically still have all three faculty members on our M.S. thesis committees come from within the department, but are planning to include more out-of-department faculty on thesis committees in the future.
- Recommendation: Calendarize course offerings. Action: We have developed a 2-year rotation schedule of courses, but our small student numbers can result in that schedule being changed as required to best serve the student population.
- Recommendation: Expand research areas with future hires. While one of the recent hires (Newton) works in the existing area of Nuclear Theory and Nuclear Astrophysics, the other two recent hires (Williams and Wood) have been in the general area of Stellar Astronomy and Astrophysics. In addition, both Newton and Wood bring substantial expertise in numerical modeling of astrophysical systems.
• Recommendation: Support new minor in astronomy. Action: The minor in astronomy was implemented in 2009.
• Recommendation: Consider the use of UG teaching assistants: The department does use UG teaching assistants as tutors in the JAMP room. We also often use upper-division undergraduate students for grading help with the PHYS 2425 and PHYS 2426 courses.

6.1.2 Enrollment Trends and Analysis

The department has been reasonably successful in recruiting and retaining students, but the department’s plan is to improve on both fronts. Enrollment during the past 5 years has been reasonably steady between 20 and 30 majors per year (see Figure 1). Our graduation rates over the previous decade have fluctuated significantly over the previous decade, but the 5-year trailing average has been trending in the right direction (see Figure 2). The department is on the edge of being a low-producing program and Figure 2 shows that while the department was just below the mandated 25 graduates in 5 years, it graduated 8 majors in FY12, bringing the 5-year average to 5.2/year. The department must improve our recruitment and retention.

Figure 1: Physics and Astronomy Department Enrollment for the previous 5 years and current.
6.1.3 Changes to the program and evaluation of the field.

The major changes to the program are the implementation of the minor in astronomy, and the addition of the new service course PHYS 141: Introduction to Musical Acoustics.

6.2 Department Planning and Structure

6.2.1 Departmental Goals and Priorities for the Next 5 Years

The primary goal of the department over the next 5 years must be recruiting and retaining a larger number of majors at the undergraduate and M.S. levels. Our goal is to grow the department such that we have roughly 50 undergraduate majors enrolled in any given year, and 12 graduate students in the M.S. program. Physics is arguably the most fundamental science, and a healthy physics program is essential for a successful, vibrant university.

6.2.2 Strengths and Weaknesses of the Department

The faculty of the department as a group have grown in recent years, but we still rely too heavily on adjunct professors. We currently use adjunct instructors to teach over 20 SCH each term at our main campus. An analysis completed by Dr. Haydn Fox, Asst. Dean of CoSEA indicates that our department has a faculty line deficit of 3.4 faculty. We believe that these students would be best served by one or more new faculty members who are scientists holding Ph.D. degrees in physics or astrophysics but who also have a passion for physics education. Faculty members that can bring the excitement of the research endeavor to the Integrated Science classroom will
inspire those future teachers who will in turn inspire their students. Currently, all our
departmental faculty members are all male. This is not uncommon in the physical sciences, but
studies show that the presence of female faculty members does positively influence course
selection and major choice (e.g., Bettinger & Long, 2005 Am. Economic Rev., 95, 152-157). Our
goal will be to actively recruit top-tier female candidates for this new faculty line using personal
contacts, with the hope that we can attract candidates that are the best of all applicants. The new
faculty hire must be eager to teach future teachers, but of course also will have a research focus
that compliments the existing research efforts in the department. We are hoping to attract a
candidate who is an observational astronomer who will make use of our newly acquired access to
the SARA telescopes at KPNO in Arizona, and the CTIO in Chile. A strong record of successful
grant proposals will be an additional factor used to identify the top candidate. Next year we will
propose to add a concentration in Astronomy and Astrophysics to our existing Physics Degree,
as we know from experience that such an offering is very attractive to today’s prospective
students. We anticipate that this new concentration supported by the new faculty line will lead to
a doubling of our number of entering freshmen within 5 years, and more than a doubling of
graduation rates within 10 years.

Many of our classes are taught in the classrooms of the McFarland Science Building. These
rooms are in general adequate.

The University Observatory located about 5 miles south of campus is used for teaching, research,
and public outreach. The site currently lacks internet access, which limits some research
activities.

6.2.3 Faculty Expertise

Our faculty have broad expertise that fully covers the breadth of the program, from Experimental
Physics (Drs. Chourasia and Rogers), to Physics Education (Dr. Newton), to Theoretical Physics
(Drs. Bertulani and Li), to Astronomy & Astrophysics (Drs. Montgomery, Williams and Wood).
Curriculum Vitae for faculty members are included in an Appendix A.

6.2.4 Faculty Qualifications

SACS Credential Inventory forms are included in Appendix B.

6.2.5 Faculty Productivity 2011- 2012 Academic Year

All faculty members teach full loads excepting those that have significant externally-funded
research efforts or administrative duties. An analysis by Dr. Hayden Fox, Asst. Dean of CoSEA
indicates that Physics and Astronomy SCH generation is 125.16 hours, with 2985 credit hours
production. Nearly all faculty members are research active, producing one or more refereed
publications per year (see Appendix A). All faculty contribute service to the department and/or
university though committee assignments or organizing special projects or events.

6.2.6 Quality of the Management and Communications in the Department
The current department head (Wood) was hired Aug 1, 2012. He has worked to foster a collegial environment where faculty and staff are encouraged to participate in the decision-making process and the implementation activities that result. Faculty meet as a group approximately twice per month to discuss the needs of the department, but the most frequent means of communication is face-to-face contact and via email. The department head works closely with the administrative secretary on a daily basis, and is in face-to-face, phone or email contact with adjunct faculty as needed. Dr. Newton is a new faculty, and the department head asked Dr. Li to serve as his faculty mentor.

6.2.7 Student Advising and Mentoring

The Department of Physics and Astronomy is committed to providing quality advising for all students in our program. Beginning Fall 2012, Dr. Montgomery serves as the undergraduate academic advisor for our majors. Dr. Kurtis Williams is the faculty advisor for the Society of Physics Students.

6.2.8 Substantial Online Course Offerings/off-campus Programs

Dr. Kurtis Williams received a Texas Space Grant Consortium to develop an online section for ASTR 1412: Stars and the Universe. The first offering was in the Fall 2012 term. The goal is to reach students who are unable to take the courses on-campus. Dr. Williams is working with the Faculty Center for Teaching with Technology to develop student-centered course materials including laboratory exercises. The course is being developed to meet national Quality Matters standards. Assessment includes widely used concept inventory tests and student attitude surveys, in addition to the standard university course evaluation surveys.

We also have been teaching our Integrated Science I and II courses IS 1415 and IS 1417 online for several years now using adjunct professors. These courses are University Studies courses serving students who are non-science majors. We have offered a section of IS 1415 at the new Rockwall Center, but at the time of this writing, it does not appear there will be a sufficient number of students for the course to make.

Our courses IS 351 and IS 352 (Science Inquiry I and II) for pre-service teachers are taught at off-campus locations (Collin Higher Education Center, Navarro-Corsicana, and Navarro-Midlothian) using adjunct professors.

6.3 Commitment to Student Learning

6.3.1 Learning Goals and Assessment Program

The Department of Physics and Astronomy has not to-date had a strong record of assessment activities. Our Student Learning Outcomes as listed on our Matrix for Educational Programs are:

1. Physics majors will know and be able to apply the concepts of (i) mechanics, (ii) electricity & magnetism, (iii) thermal physics, and (iv) atomic physics.
• Assessment: Embedded questions in final exams of (i) PHYS 411 (ii) PHYS 412 (iii) PHYS 414, and (iv) PHYS 321 and PHYS 420. At least 70% of students will achieve a score of 70% or better.

2. Students should be able to communicate their knowledge of physics both in written and oral presentations; they should be adept at presenting ideas conceptually and in specific detail.
   • Assessment: Students give oral presentations or prepare manuscripts in PHYS 401, depending on the semester. Students take this seminar course twice.

3. Students will have adequate practical skills to approach physics problems, including designing and executing experiments to test physical theories, as well as analyzing and understanding experimental data.
   • Assessment: Performance in PHYS 441, measured by lab reports.

In addition, we have Student Learning Outcomes for six of our University Studies courses. These SLOs and results as determined by embedded questions on course final exams as reported for Spring 2011 are as follows:

1. ASTR 1411: Students will be able to determine latitude by using the altitude of the Sun. (55%)
2. ASTR 1412: Students will be able to identify the primary energy source of main sequence stars. (89%)
3. IS 1415: Students should be able to understand the nature of forces among different objects. (88%)
4. IS 1417: Students will understand the importance of experiments to the natural sciences and have developed basic laboratory skills. (81%)
5. PHYS 2425: Students will be able to calculate the acceleration of an object with unbalanced forces applied on it. (67%)
6. PHYS 2426: Students should be able to understand the interaction among the electric charges and should be able to determine this interaction (either through the force or through the field) (77%)

We encourage all students to participate in research projects, and our department is an active participant in the Annual Research Symposium (organized by Dr. Chourasia) held each year during the first week of May.

6.3.2 Summary Analysis of Results of Assessment Program

As noted above, we are only recently begun to implement a significant formal assessment culture in the department, so at this time, we have not made any dramatic changes that were the result of formal assessments. Note, however, that of course our faculty are professionals with a keen interest in doing the best job they can in the classroom, and each faculty member makes changes from year to year in how they deliver their course materials and engage the student population based on the experience and student evaluations from previous years.
6.3.3 The Program’s Role in Providing Service Courses

The Department offers a wide variety of service courses for the core curriculum and general education program. We offer lower-division lecture+lab Integrated Science courses (IS1411, IS1412) for non-science majors, and upper-division Integrated Science courses (IS 351, IS 352) for pre-service teachers. The latter courses focus on teaching pre-service teacher how to teach science, including a large sample of lab exercises that they can use directly in their own classrooms. We also offer Historical Development of Great Ideas in Science (IS 451) for pre-service teachers. In 2011 we implemented a lecture+lab course for music majors - Musical Acoustics (PHYS 141) - that has attracted typically 20 students per year. We offer lecture+lab College Physics courses (PHYS 1401, PHYS 1402), which are algebra based, and the traditional lecture+lab University Physics courses (PHYS 2425, PHYS 2426), which are calculus based. These courses address directly the intellectual competencies Reading, Listening, and Critical Thinking, and to a lesser extent Writing, Speaking, and Computer Literacy. The bulk of our SCH hours are service hours, given that our upper-division physics courses taken by majors are typically offered every other year, and have ~10 students enrolled. Our total SCH production thus only slightly overestimates our service course SCH production. Our total SCH production for the past 5 years are given in Table 1, and average 7160 with a significant positive trend.

<table>
<thead>
<tr>
<th>Academic Year</th>
<th>Total SCH Production</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007-2008</td>
<td>6,812</td>
</tr>
<tr>
<td>2008-2009</td>
<td>6,517</td>
</tr>
<tr>
<td>2009-2010</td>
<td>7,007</td>
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<tr>
<td>2010-2011</td>
<td>7,919</td>
</tr>
<tr>
<td>2011-2012</td>
<td>7,549</td>
</tr>
</tbody>
</table>

This year, we will be working to implement the changes required by the statewide core science mandate dropping to 6 sch effective Fall 2014. We anticipate these changes will reduce the number of lab sections offered, and so may reduce our need for GAT positions slightly.

6.4 Recommendations and Implementation Plan

6.4.1 Recommendations of the Program in Response to this Review

We need to grow our undergraduate major enrollment by at least 50% over the next 5 years. We have started an active recruiting effort, are currently developing a new departmental brochure, and are discussing whether advertising our program would attract additional students. What distinguishes us from other nearby Physics programs is our emphasis in astrophysics, and our access to two of the premier observing sites in the world through our membership in the SARA Telescope Consortium. We feel that if we can get the word out, we will recruit students who otherwise would not have come to A&M Commerce.
We need to improve our assessment activities in the department. We will implement a more broad-based assessment of our course and program effectiveness, using input and expertise from departmental faculty members. Within three years we will have formal assessment data gathered for all courses offered.

We plan to introduce concentrations under the physics degree to attract additional students. The first concentration will be “Astronomy & Astrophysics”, and the second “Biophysics”. Our experience is that prospective students now make extensive (and perhaps exclusive) use of internet search engines while searching for universities that offer the degrees that interest them, and their search terms are likely to be specialized. The current department head found this to be the case at his previous university, where enrollment numbers more than doubled after he worked to implement a concentration in Astronomy & Astrophysics under the existing Space Sciences degree program. We are hoping for a similar result here. These plans are evolutionary, and can be accomplished with only limited ‘new’ courses – one for each concentration. This is a relatively small price to pay for a significant increase in enrollment of departmental majors.

We are also currently re-working our Broadfield Science: Major in Physics program designed for pre-service teachers. A&M Commerce is one of the largest producers of Texas teachers, and we are working to recruit pre-service teachers into this program which has been streamlined to 120 hours, consistent with our physics degree.

We expect that our students will continue to be drawn mostly from our region, and most of our active recruiting will focus on high schools and junior colleges in the area. We have made preliminary visits to 3 local junior colleges, and will visit their physics classrooms during the Spring 2013 term to recruit students to our program.

6.4.2 Resources Needed

Our primary need at this time is 1-2 additional faculty lines, as noted above in section 6.2.2. Carefully selected hires will allow us to expand our research efforts and our ability to recruit pre-service teachers into our Broadfield Science: Major in Physics program. These new faculty members will require office and laboratory space, so if the hires are granted, we will request additional space.

As noted above, we currently lack internet access at our University Observatory located 5 miles south of campus. We require internet access to fully utilize the facility.
Appendix A: Faculty Curriculum Vitae
Biographical Data

Carlos A. Bertulani

Department of Physics, Texas A&M University-Commerce, Commerce, TX 75429-3011
Phone: (903) 886-5882, Fax: (903) 886-5480
E-mail: carlos.bertulani@tamuc.edu
URL: http://faculty.tamu.edu/cbertulani/

Current Position:
Professor, Texas A&M University-Commerce, Commerce, USA.

Previous Faculty Positions:
- Assistant Professor, Physics Department, Federal University of Rio de Janeiro, Brazil, 1980-1983.

Visiting Faculty Positions:
- Research Professor, Department of Physics, University of Tennessee, Knoxville, USA, 2006-2007.
- Senior Scientist, Physics Division, Oak Ridge National Laboratory, Oak Ridge, USA, 2006-2007.
- Visiting Professor, Department of Physics, University of Arizona, USA, 2004 -2006.
- Visiting Professor, National Superconducting Cyclotron Laboratory, Michigan State University, USA, 2002 -2004.
- Guggenheim Fellow and Senior Researcher, Brookhaven National Laboratory, NY, USA, 2000-2001.
- Visiting Professor, University of Wisconsin, Madison, USA, 1993.
- Visiting Professor, National Superconducting Cyclotron Laboratory, Michigan State University, USA, 1991 -1992.

Other Faculty Positions:
Distinguished Affiliated Professor, Department of Physics, University of North Texas, 2007-present

Degrees:
- Ph.D. (Nuclear Physics), University of Bonn, Germany, June 1987 -Thesis with Summa Cum Laude.
- M.S. (Nuclear Physics), Federal University of Rio de Janeiro, Brazil, 1983.
- B.S. (Physics), Federal University of Rio de Janeiro, Brazil, 1980.
Grants, Awards, Fellowships and Honors:

- Department of Energy (DE-FG02-08ER41533), PI, 2011-2013.
- Department of Energy (DE-FG02-08ER41533), PI, single investigator, 2008-2010.
- Department of Energy (DE-FC02-07ER41457), PI, single investigator, 2007-2011.
- Cotrell Corporation (ID: 10497), PI, single investigator, 2010-2011.
- National Science Foundation (ID: OISE-0921447), PI, Pan-American Advanced Institute 2010.
- Department of Energy (DOE FOA 08-10), co-PI, collaborative, 2010-2013.
- Department of Energy (DE-FC02-08ER41588), PI, single investigator, 2007.
- Department of Energy (DE-FC02-07ER41457), Oak Ridge National Lab, 2006.
- Department of Energy, Co-PI, (with Bira van Kolck), 2005.
- Research Award: Program for Excellence in Research (PRONEX), Brazil, 1996-2000, Co-PI.
- Research Award: CNPq and CAPES, Brazil, 1997-2000. To fund 60-70 PhD students in the graduate study program of the Physics Department of the UFRJ (Federal University of Rio de Janeiro).
- Granted 3 times (as PI) an International US(NSF)-Brazil(CNPq) collaboration. Two with the University of Wisconsin at Madison, (American co-PI's: Kirk McVoy and A. Baha Balantekin) and one with Michigan State University (American co-PI's: Vladimir Zelevinsky and P. Gregers Hansen).

Honors:
- APS Fellow.
- Fellow of the Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPq), Brazil, 1995-2000. Highest rank.
- Fellow of the Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPq), Brazil, 1988 -1990.

Scientific Publications:

- Scientific Journals: 180+ articles published in refereed international scientific journals, 30+ papers in conference proceedings.
- Conferences: 30+ publications in conference proceedings and participation in numerous conferences.
- Author of 5 textbooks published with Princeton Press, IOP and Nova Science and World Scientific.
- Edited 5 Proceedings of International Conferences with World Scientific and North Holland.
Textbooks:

  Provides a clear, concise, and up-to-date overview of the atomic nucleus and the theories that seek to explain it. For graduate students.
  Providing a concise overview of nuclear reactions, this reference discusses the main formalisms, ranging from basic laws to the final formulae used to calculate measurable quantities. For graduate students.
  A concise overview of nucleus physics. For undergraduate students.
  To my knowledge, the first textbook on the physics of rare nuclear isotopes, the reaction theory developed for reactions and structure theory of unstable nuclei. For graduate students.
  This book is a translation to Portuguese of “Introduction to Nuclear Physics”, with few additional material. For undergraduate students.

Books edited


Administrative Positions:

- Chair: Graduate Program of Physics - Federal University of Rio de Janeiro, Brazil, 1997-1999. A program with 60 to 70 PhD students.
- Member of Committees for Science funding (Group Grants, Postdoc Positions, PhD Fellowships) at the Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPq), Brazil, at the Coordenadoria de Aperfeiçoamento de Pessoal de Nível Superior (CAPES), Brazil, at the Deutscher Akademischer Austauschdienst (DAAD), Germany, at the Fundação de Amparo à Pesquisa do Estado de São Paulo, and at the Argentine Funding Agency PICT.

- Member of Department Committees (Strategic Plan, NSF and DOE Panels, Undergraduate Curriculum, Graduate Curriculum, Graduate Admissions, Recruitment & Prizes, Refereeing MS and PhD thesis).

- Executive Committee of the Texas Section of the American Physical Society. 2010 – 2013.

- Member of the American Physical Society Education committee. 2013 – 2015.

Teaching Experience:

- 59 undergraduate and graduate courses taught in the past.
- Thesis supervisor of 4 Ph.D. students and 7 MS students. (completed).
- Presently advising two MSc students (John Fuqua and Lucretius Adrien Coleman).
- Four past postdoctoral fellows. Presently, two postdocs (Mesut Karakoç and Paolo Avogadro).

Courses Taught as Assistant, Associate, or Full Professor:

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<th>Semester</th>
<th>Course</th>
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<td>Introductory Physics I</td>
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<td>Spring 1981</td>
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<td>Physics for Engineers -- Electricity, Magnetism &amp; Optics-- UFRJ</td>
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<td>Physics for Engineers -- Fluids &amp; Thermodynamics -- UFRJ</td>
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<td>Spring 1997</td>
<td>Physics for Biology I</td>
<td>Physics for Biology -- Mechanics &amp; Thermodynamics -- UFRJ</td>
</tr>
<tr>
<td>Fall 1997</td>
<td>Quantum Mechanics II</td>
<td>Quantum Mechanics - Graduate -- UFRJ</td>
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<tr>
<td>Spring 1998</td>
<td>Quantum Mechanics II</td>
<td>Quantum Mechanics - Graduate -- UFRJ</td>
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<tr>
<td>Fall 1998</td>
<td>Topics in Hadron Physics</td>
<td>Topics in Hadron Physics - Graduate -- UFRJ</td>
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<td>Spring 1999</td>
<td>Topics in Hadron Physics</td>
<td>Topics in Hadron Physics - Graduate -- UFRJ</td>
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<td>Spring 2002</td>
<td>PHY982</td>
<td>Nuclear Reactions - Graduate – Michigan State University</td>
</tr>
<tr>
<td>Fall 2002</td>
<td>PHY232</td>
<td>Physics for Biology Students - Electricity/Magnetism/Optics</td>
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<td></td>
<td>– Michigan State Univ.</td>
</tr>
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</table>
- **Organization of Meetings:**

- “Pan-American Advanced Studies Institute on Rare Nuclear Isotopes”, Paraiba, Brazil, August 1 - 13, 2010. Chair.
- “9th International Nucleus-Nucleus Conference”, Rio de Janeiro, Brazil, August 28-September 1, 2006. **Co-Chair.**
- “International Workshop on Collective Phenomena in Bose and Fermi Systems”, Serra Negra, Brazil, August 1998. **Chair.**
- “International Summer School on Nuclear Physics”, Campos do Jordão, Brazil, January 1997. **Chair.**
- “International Workshop on Physics of Unstable Nuclear Beams”, Serra Negra, 1996, Brazil. **Chair.**
- “Annual Meeting of the Brazilian Physics Society”, Aguas de Lindóia, Brazil, September 1995. **Chair.**
- “Workshop on Indirect Methods in Nuclear Astrophysics”, Gesellschaft für Schwerionenforschung, Darmstadt, Germany, June, 1994. **Chair.**
- “International Summer School on Nuclear Physics”, Campos do Jordão, Brazil, January 1991. **Chair.**
- Local Organizing Committee of the “International Conference of Nuclear Physics - IUPAP”, São Paulo, Brazil, August 1989.
- “Workshop on Theoretical Physics”, Physics Department, Federal University of Rio de Janeiro, Brazil, January 1988. **Chair.**

**Other Activities:**

- Member of the American Physical Society Education Committee.
- Member of the Executive Committee of the Texas Section of the American Physical Society.
- Panelist of the National Science Foundation on several occasions. Also as chair.
- Panelist of the Department of Energy on several occasions.
- Consultant for foreign funding agencies in Japan, Europe, South-Africa, Canada, and US (DOE and NSF).
- Member of the Advisory Committees of several International Workshops and Conferences.
- Member of the American Physical Society and of the Brazilian Physical Society.
- Referee for several international scientific journals (~ 10 times/year), including “The Physical Review” and “Nuclear Physics” journals.
- Member of Committees for Funding of Science (Group Grants, Postdoc Positions, PhD Fellowships) at the Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPq), Brazil, at the Coordenadoria de Aperfeiçoamento de Pessoal de Nível Superior (CAPES), Brazil, at the Deutscher Akademischer Austauschdienst (DAAD), Germany, at the Fundacao de Amparo à Pesquisa do Estado de São Paulo, and at the Argentine Funding Agency PICT.
- Member of Department Committees worldwide (Strategic Plan, Undergraduate Curriculum, Graduate Curriculum, Graduate Admissions, Recruitment & Prizes, Refereeing MS and PhD thesis).
- Organizer (chair or co-chair) of 13 international conferences and 2 international schools for graduate students.
- Software developer: wrote 4 computer codes distributed worldwide by Computer Physics Communications Library (UK).
Invited Talks:

- 220+ talks presented at several universities and laboratories in USA, Europe, Asia and South America.

Publications in peer-reviewed scientific journals

In press, or submitted

2. Coulomb distortion and medium corrections in nucleon-removal reactions, Mesut Karakoc, A. Banu, C. A. Bertulani, L. Trache, to be published.
5. Big bang nucleosynthesis with a non-Maxwellian distribution, C.A. Bertulani, J. Fuqua and M.S. Hussein, to be published.

Published

16. Trojan horse particle invariance studied with the 6Li(d, alpha 4He and 7Li(p, alpha 4He reactions, R. G. Pizzone et al, R. G. Pizzone et al, Phys. Rev. 83, 045801 (2011). (8 pages)
27. QRAP: a numerical code for projected (Q)uasi-particle (RA)ndom (P)hase approximation, F. Krmpotic; A. Samana, C.A. Bertulani, Computer Physics Communications 181 (2010) 1123–1135. (13 pages)
29. Production of exotic atoms at energies available at the CERN Large Hadron Collider, C. A. Bertulani and M. Ellermann, Phys. Rev. C 81, 044910 (2010). (6 pages)
37. Radiative capture of protons and neutrons at astrophysical energies with single-particle models, Junting Huang, C.A. Bertulani and V. Guimaraes, Atomic Data and Nuclear Data Tables, 2010.
49. 7Be(p,gamma)8B S-factor from ab initio wave functions, P. Navrátil, C.A. Bertulani, and E. Caurier, Nucl. Phys. A787 (2007) 539. (8 pages)
52. Direct reactions in/for astrophysics, Proceedings of Science (online at: http://pos.sissa.it/index.html), 2007. (11 pages)
54. $^7\text{Be}(p,\gamma)^8\text{B}$ S-factor from ab initio wave functions, P. Navrátil, C.A. Bertulani, and E. Caurier, Phys. Lett. B 634 (2006) 191. (4 pages)
55. $^7\text{Be}(p,\gamma)^8\text{B}$ S-factor from ab initio No-Core Shell Model (NSCM) wave functions, P. Navrátil, C.A. Bertulani, and E. Caurier, Phys. Rev. C 73 (2006) 065801. (20 pages)
88. Pair production with capture in peripheral collisions with heavy ions, C.A. Bertulani and D. Dolci, Nucl. Phys. A 683 (2001) 635. (14 pages)
94. Microscopic studies of the double giant resonance, C.A. Bertulani and V. Ponomarev, Phys. Reports 321 (1999) 139-251. (113 pages)
97. The astrophysical reaction 8Li (n, gamma ) 9Li from measurements by reverse kinematics, C.A. Bertulani, J. Phys. G 25 (1999) 1959. (5 pages)
117. 7Be(p, gamma)8B revisited , C.A. Bertulani, Z. Phys. A356 (1996) 293. (5 pages)
125. Solar Neutrinos (in portuguese), C.A. Bertulani, Ciência Hoje 18 (1995) 52. (6 pages)
133. Relativistic Heavy Ion Physics without Nuclear Contact, C.A. Bertulani and G. Baur, Physics Today, March 1994, p. 22. This article was cover of Physics Today. Cover caption. (6 pages)
162. Microscopic Multiple Scattering Theory of the Heavy Ion Total Reaction Cross Section and Applications to Stable and Exotic Nuclei, M.S. Hussein, R.A. Rego and C.A. Bertulani, Physics Reports 201 (1991) 279. (56 pages)
165. Reactions with Exotic Nuclei (in portuguese), C.A. Bertulani, Ciência Hoje 11 (1990) 60. (6 pages)

**Publications in Peer-Reviewed Proceedings (no abstracts: full articles)**

186. Nuclear structure and neutrino-nucleus interaction, A. R. Samana, F. Krmpotic, N. Paar, and C. A. Bertulani, XXXIV edition of the Brazilian Workshop on Nuclear Physics, 5-10 June 2011, Foz de Iguacu, Parana state, Brazil. (12 pages)
187. Nuclear physics in the cosmos, C.A. Bertulani, XXXIV edition of the Brazilian Workshop on Nuclear Physics, 5-10 June 2011, Foz de Iguacu, Parana state, Brazil. (20 pages)
188. Medium Effects in Reactions with Rare Isotopes, International Conference on "Nuclear Physics in Astrophysics V", Eilat, Israel, April 3-8, 2011.
191. Light radioactive nuclei capture reactions with phenomenological potential models, V. Guimaraes and C.A. Bertulani, Meeting of the Brazilian Physical Society, September 2009, to be published in the proceedings of the American Institute of Physics, arXiv:0912.0221 (9 pages)
192. Nuclear astrophysics studies with ultra-peripheral heavy-ion collisions, C.A. Bertulani, Lecture notes of the 5th European Summer School on Experimental Nuclear Astrophysics, Sep.
20-27, 2009, Santa Tecla, Sicily, Italy. To be published in the proceedings of the American Institute of Physics, arXiv:0912.3307 (12 pages)

193. ``Theory and applications of Coulomb excitation", 8th CNS-EFES Summer School, Center for Nuclear Study (CNS), the University of Tokyo, and RIKEN Wako Campus, August 26 - September 1, 2009. (69 pages)

194. 'Nuclear Astrophysics with Indirect Methods", 10th International Conference on Nucleus-Nucleus Collisions, Beijing, China, August 16-21, 2009. (6 pages).

195. ``Nuclear Astrophysics from Direct Reactions", XXXI Symposium on Nuclear Physics (Oaxtepec), Cocoyoc, Mexico, January 7-10, 2008. (6 pages)


197. 7Be(p,\gamma)8B S-factor from ab initio wave functions, P. Navrátil, C.A. Bertulani, and E. Caurier, IX International Conference on “Nucleus-Nucleus Collisions”, Rio de Janeiro, August 28-September 1, 2007, Brazil. (6 pages)

198. 7Be(p,\gamma)8B S-factor from ab initio wave functions, P. Navratil, C.A. Bertulani and E. Caurier, International Few Body Conference, Santos, August, 2006, Brazil. (6 pages)

199. 7Be(p,\gamma)8B S-factor from ab initio wave functions, P. Navratil, C.A. Bertulani and E. Caurier, International Symposium on Structure of Exotic Nuclei and Nuclear Forces, University of Tokyo, March 9 – 12, 2006, Japan. (6 pages)

200. Pygmy resonances probed with electron scattering, C.A. Bertulani, Int. Conf. on "Collective Motion in Nuclei under Extreme Conditions" (COMEX 2), June 20 - 23, 2006, Sankt Goar, Germany. (9 pages)


203. Special relativity and reactions with unstable nuclear beams, C.A. Bertulani, Proc. Int. Workshop on Reaction Mechanisms for Rare Isotope Beams, Michigan State University, March 9-12, 2005, USA. (8 pages)


206. Radiative capture cross sections: challenges and solutions, C.A. Bertulani, 10th Int. Conf. on Nuclear Reaction Mechanisms, Varenna, Italy, June 9-13, 2003. (10 pages)


214. 7Be(p, gamma)8B revisited, C.A. Bertulani, Int. Workshop on the Extremes of Nuclear Structure, Hirschegg, Austria, 1996, eds. H. Feldmeier, J. Knoll and W. Norenberg. (8 pages)


---

**Colloquia, Seminars, and Invited Talks (incomplete)**

**1983**
1. *Dissipation in Heavy Ion Collisions*, Physics Institute, Federal University of Rio de Janeiro, Brazil, June, 1983.
2. *Dissipation in Heavy Ion Collisions*, Annual meeting of the Brazilian Physics Society, Division of Nuclear Physics, Itaipava, Rio de Janeiro, Brazil, 1983.

**1984**

**1985**

**1986**

**1987**

1988
22. *Excitation Giant Resonances in Heavy Ion Collisions*, Annual meeting of the Brazilian Physics Society, Division of Nuclear Physics, Caxambu, Brazil, 1988.

1989
27. *Multiphonon Giant Resonances*, Annual meeting of the Brazilian Physics Society, Division of Nuclear Physics, Caxambu, Brazil, 1989.

1990
32. *Coulomb Dissociation of 11-Li*, Theoretical Physics Institute, IFT, Sao Paulo, April 1990.
34. *Reactions with Radioactive Nuclei*, Annual meeting of the Brazilian Physics Society, Division of Nuclear Physics, Cacapava, Brazil, September, 1990.

1991


1992


1993

46. *Halo Nuclei*, Department of Physics, University of Michigan, Ann-Arbor, 1993.

47. *Electromagnetic Processes in Relativistic Heavy Ion Collisions*, Physics Department, University of Wisconsin, La-Crosse, April, 1993.


52. *Excitation of Multiphonon Giant Resonances*, Physics Department, Technical University Munich, Garching, Germany, December 1993.

1994


59. Reactions and Structure of Unstable Nuclei, Physics Institute, University of Guadalajara, Mexico, June 1994.
60. Peripheral Reactions with Relativistic Heavy Ions, Physics Department, Notre Dame University, June 1994.

1995
64. Nuclear Astrophysics with Radioactive Beams, Department of Physics, University of Connecticut, Storrs, Connecticut, USA 1995.
65. The Photodissociation of 8B and the Solar Neutrino Problem, Physics Institute, University of Santa Catarina, Brazil, 1995.
66. The Photodissociation of 8B and the Solar Neutrino Problem, Annual meeting of the Brazilian Physics Society, Division of Nuclear Physics, Sao Lourenco, Brazil, September, 1995.

1996
69. 7Be(p, gamma)8B revisited, International Workshop on the Extremes of Nuclear Structure, Hirschegg, Austria, 1996.
70. Neutron Removal in Peripheral Heavy Ion Collisions, Gesellschaft fuer Schwerionenforshung, Darmstadt, Germany, 1996.
73. Particle Production in Peripheral Heavy Ion Collisions, Instituto de Fisica Teorica, Sao Paulo, Brazil, May, 1996.
74. Excitation of Double Giant Resonances, Physics Department, University of Aizu-Wakamatsu, Japan 1996
75. Small Effects in Astrophysical Nuclear Reactions, J.A. Swieca Summer School: Nuclear Physics, Campos do Jordão, Brazil 76. Direct Reactions with Exotic Nuclei, Physics Department, University of Tohoku, Sendai, 1996.

1997
78. Recent Development in Nuclear Astrophysics, Nuclear Physics Laboratory, Yale University, New Haven, USA, April 24, 1997.
79. Charge Exchange in Heavy Ion Reactions, Physics Department, University of Padova, Italy, 1997.
80. Charge Exchange with Radioactive Beams, Gesellschaft fuer Schwerionenforshung, Darmstadt,
Germany, 1997.

1998
84. *Relativistic Heavy Ion Collisions without Nuclear Contact*, Physics Institute, University of Sao Paulo, 1998.

1999
87. *Bremsstrahlung in Particle Tunneling*, Nuclear Physics Laboratory, Yale University, New Haven, USA, November 2, 1999.
89. *Ultra-peripheral Collisions of Relativistic Heavy Ions*, Brookhaven National Laboratory, Physics Department, Upton, Long Island, USA, 1999.
90. *Particle Production in Peripheral Heavy Ion Collisions*, CTP, Massachusetts Institute of Technology, Boston, USA, 1999.

2000

2001
96. *One- and Two-Photon Physics with Relativistic Heavy Ions*, Cyclotron Laboratory, Texas A&M University, College Station, USA, August 21, 2001.
100. *Shining Light on Heavy Ions* Department of Chemistry and Physics, Arkansas State University, Nov. 9, 2001.
103. Reactions with Unstable Nuclear Beams, TANDAR Laboratory, Argentina, June 2002.
104. Reactions with Unstable Nuclear Beams, Physics Department, University of La Plata, Argentina, June, 2002.
106. S-factor for 7Be(p, gamma)8B from Coulomb Breakup, Workshop on Reaction Theory for Nuclei Far from Stability, University of Washington, Seattle, September 6, 2002.

2003

2004
115. New directions in Nuclear (astro)Physics, LNS, INFN, Catania, Italy, February 16, 2004
119. Nuclear Astrophysics: Challenges and Solutions, Department of Physics, JINA Talk, MSU, East Lansing, April 15, 2004.


2005


127. *7Be(p,γ)8B S-factor from ab initio wave functions*, DNP Meeting of the American Physical Society, Tampa, April 17, 2005.


2006

132. *New directions in Nuclear Astrophysics*, Physics Department, Mississippi State University, Starkville, February 2006.

133. *New Directions in Nuclear Astrophysics*, Physics Department, Southern Methodist University, Dallas, March 2006.

134. *Stellar Reactions on Earth*, Physics Department, University of Texas at San Antonio, April 2006.


145. *Stellar Reactions on Earth*, Physics Department, Tohoku University, Sendai, Japan, October 24, 2006.
146. *New Directions in Nuclear Astrophysics*, Tokyo Institute of Technology, Tokyo, Japan, October 26, 2006.
147. *New Directions in Nuclear Astrophysics*, Nishina Center, RIKEN, Wako-shi, Japan, November 03, 2006
148. *New Directions in Nuclear Astrophysics*, Department of Physics, Tsukuba University, Japan, November 15, 2006.
151. *Photon Physics at the Large Hadron Collider at CERN*, Physics Department, University of Tennessee, Knoxville, November 27, 2006.

2007

2008
166. *Stellar Reactions on Earth*, RCNP, Osaka, Japan, June 6, 2008
169. *Even-odd mass Staggering with Density Dependent Pairing*, Physics Department, University of Tsukuba, Japan, June 26, 2008.
171. *Dissociation of Relativistic Projectiles with the Continuum-Discretized Coupled-Channels Method*, Workshop on Unbound Nuclei, INFN, Sez. di Pisa, Pisa, Italy 3-5 November 2008.


2009


175. *Even-odd mass staggering*, University of Kyushu, Fukuoka, Japan, February 18, 2009.


177. *Light Nuclei in Stars*, Department of Physics, Jiao Tong University, Shanghai, China, March 16, 2009.


183. *Relativistic Coulomb Excitation*, Physics Department, The University of Tokyo, Tokyo, Japan, August 27, 2009.


2010


192. *Challenges in nuclear astrophysics*, Carpathian Summer School of Physics, Sinaia, Romania, June 29, 2010.

193. *New directions in Nuclear Astrophysics*, Department of Physics and Astronomy, Ghent
University, Belgium, July 7, 2010.  
195. *Reactions with rare isotopes and nuclear astrophysics*, Department of Physics, University of Texas at San Antonio, Texas, October 8, 2010.  
199. *Challenges in nuclear astrophysics*, Physics Department, New Mexico State University, Las Cruces, December 3, 2010.  

2011

202. *Nuclear physics in the cosmos* Department of Physics, University of Texas at Arlington, March 4, 2011.  
203. *Spectroscopic information from reactions with unstable nuclei* International Conference on "Nuclear Physics in Astrophysics V", Eilat, Israel, April 5, 2011.  
207. *Nuclear physics in the cosmos* Meeting of the Brazilian Physical Society, Iguassu Falls, Brazil, June 9, 2011.  
208. *How robust is big bang nucleosynthesis?* Laboratori Nationali del Sud, Catania, Italy, August 2, 2011.  

2012

213. *Nuclei in the Cosmos* Department of Physics, Texas Tech University, Lubbock, TX, February 23, 2012.  
215. *Nuclear Physics in the Cosmos* Department of Physics, University of Idaho, April 16,
2012 216. Implications of non-extensive statistics for big bang nucleosynthesis
CompStar: the physics and astrophysics of compact stars, Tahiti, June 4-8, 2012.
217. Thermal properties of big bang nucleosynthesis
218. Nuclear Astrophysics with Radioactive Beams - Lecture I
219. Nuclear Astrophysics with Radioactive Beams - Lecture II
220. Nuclear Astrophysics with Radioactive Beams - Lecture III
221. Thermal properties of big bang nucleosynthesis
Carpathian Summer School of Physics, Exotic Nuclei and Nuclear/Particle Astrophysics (IV) - From Nuclei to Stars, Sinaia, Romania, June 24 - July 7, 2012.
222. Quasi-free reactions with radioactive beams R3B Collaboration meeting, Koenigstein, Germany, July 16-20, 2012.
223. BBN and stellar nucleosynthesis: what direct reactions can do for it? Zakopane Conference on Nuclear Physics, Zakopane, Poland, August 26 - September 1, 2012.
Grady Price Blount  
blount@wcc.net, (325) 716-0450

Education:
Harvard University, Cambridge, Massachusetts, Graduate School of Education, 2005.  
Certificate: Management Development Program
Arizona State University, Tempe, Arizona, Ph.D., Planetary Geology, 1988.  
Dissertation: Regional Aeolian Dynamics from Remote Sensing: Origin of the Gran Desierto, Sonora, Mexico
Sul Ross State University, Alpine, Texas, M.S., Geology, 1985.  
Thesis: Interpretation of Shuttle Multispectral Infrared Radiometer Data for a Portion of Trans-Pecos Texas
Corpus Christi State University, Corpus Christi, Texas, B.S. Geology, 1982.  
Senior Project: Historical Changes in the Morphology of Corpus Christi Bay since 1540

Academic Positions Held:
2011-present Texas A&M University-Commerce:  
Dean, College of Science, Engineering & Agriculture (CoSEA) and Professor of Physics; Inaugural dean for new integrated college with six academic departments and ≈100 employees. Bottom up mentoring and management establishing a shared mission and creating a culture of assessment with transparent operations. Accreditation and assessment oversight and guidance. $7M Budget administration. Development and implementation of novel academic programs and distance education (DE) best practices. Institutional budget review and development.

2006-2011 Angelo State University:  
Dean, College of Sciences and Professor of Geosciences; Academic supervision and engagement for six to eight departments and ≈80-100 employees in science, mathematics and nursing. Created new College of Nursing and Allied Health in 2009. Planning, organization, administrative assessment and oversight, budget administration on $5M/year, planning, and implementation of student learning outcomes measurement.

1993-2006 Texas A&M University-Corpus Christi:  
Assistant Vice-President for Research and Associate Graduate Dean (2004-2006); Coordination of institutional doctoral-comprehensive initiative. Accreditation support, Program Reviews, coordination of Centers and Institutes. Other duties supporting 27 master’s degree programs and 4 doctoral programs. Coordination of Ph.D. program in Coastal and Marine System Science. Chair (1995-2006) of the Department of Physical and Life Sciences. Operation and administration of an interdisciplinary group serving more than 90 faculty and staff with 1,200 majors in eight undergraduate and graduate degrees. Budgeting, personnel evaluations, operations, policy implementation, and leadership initiatives.  
Academic Positions Held (continued):

1988-1993 The University of North Dakota: 

Professional Training:


2005 & 2008 Delegate to the Annual Meeting of the Commission on Colleges, Southern Association of Colleges and Schools, Atlanta, GA. and San Antonio, TX.

2008 Participant, Financial Oversight of Credit Union Fiscal Operations, Credit Union National Association, San Antonio, TX.

2008 Participant, Institute on Quality Enhancement and Accreditation, Commission on Colleges, Southern Association of Colleges and Schools, Orlando, FL.

2008 Incident Command Systems (ICS-100) and National Incident Management System (IS-700), Federal Emergency Management Agency.

2004 Strengths Quest, The Gallup Organization

1998-2003 Employee Evaluation and Goal Setting, Inventory Control and Purchasing, Professional Ethics, Texas A&M University System

Other Professional Positions:

2003-2006 Harte Research Institute for Gulf of Mexico Studies: 
Management Team Member; operational administration of $46M endowment creating a new center of excellence for marine studies and associated Ph.D. program.

2003-2006 National Spill Control School: 
Executive Director of the congressionally-mandated center providing professional training for first responder HAZMAT operations.

1986-88 Arizona State University: 
Research Associate, Planetary Geology Group, Tempe, Arizona. Field and lab research on Mars analog terrains.

1985 The University of Texas at El Paso: 
Graduate Teaching Assistant, Dept. of Geology, Responsible for teaching lab sections of Physical Geology & Remote Sensing.

1983-85 Sul Ross State University: 
Graduate Research Assistant, Alpine, Texas. Remote sensing groundtruth projects. Sports Information Director for Lobos athletic programs.

1971-82 KNOW Radio, KEYS Radio, and KRIS Television: 
Recent Professional Activities:

• University Executive Council, Texas A&M-Commerce, 2011-present.
• Coordinator, Minority Serving Institutions, Texas Space Grant Consortium, 2010-present.
• Secretary, Texas Association of Deans of Liberal Arts and Sciences, 2009-present.
• Proposal Reviewer, SACNAS (Society for Advancement of Chicanos and Native Americans in Science) Annual Conference, 2009-present.
• Board of Directors, Texas Space Grant Consortium, 2004-present.

Additional Professional Activities:

• Host, NASA Workshop on Innovations in Global Climate Change Education, 2010.
• Charter Participant, Austin Science and Engineering Fair, 2010-11.
• Member, Angelo State University SACS (Accreditation) Advisory Team, 2008-2010.
• Campus Coordinator, American Democracy Project, Stewardship of Public Lands initiative, American Association of State Colleges and Universities, 2005-2006.
• Board of Directors, South Texas Children’s Museum (Exploratorium venue), 2004-2006.
• Author, Substantive Change Prospectus for Texas A&M University-Corpus Christi, to the Southern Association of Colleges and Schools, 76 pp., 2005.
• Member, Hallmarks of Excellence Task Force, Policy Center for the First Year of College, American Association of State Colleges and Universities, 2003.
• Chair, Advisory Board, Corpus Christi Museum of Science and History, 2005-2006. Vice-Chair, 2003-2005.
• U. S. Representative, Consonrio Educativo para la Proteccion Ambiental, Santiago, Chile, 1998; Brownsville, Texas, 2000.
• Founding Member, Advisory Committee to the U.S. Secretary of the Interior, National Satellite Land Remote Sensing Data Archive, 1997-2000.
• Liaison Member of the Land Processes Distributed Active Archive Committee, Earth Resources Observation Center, Sioux Falls, S.D., 1998-1999.
• Member, International Consultative Committee on Space Data Systems, 1991-1995.

Professional Memberships:

American Geophysical Union (AGU), American Institute of Aeronautics and Astronautics (AIAA), Assoc. of Mars Explorers, Intl. Dark Sky Association, National Society of Hispanic Physicists, Society for Advancement of Chicanos and Native Americans in Science (SACNAS), Texas Association of Deans of Liberal Arts and Sciences.
Certifications and Licenses:

Federal Emergency Management Agency (FEMA) Incident Command Systems (ICS-100) and National Incident Management System (IS-700); Texas CHL (semi-automatic), BATF Type 3 federal firearm license, Advanced Open Water Scuba license, FCC Third Class Radiotelephone (with Broadcast Endorsement), FCC Extra Class radio licensee: K5EP, Texas Class C Driver's License, B.S.A. Northern Lights Council Trained Adult certification.

University Service Leadership:

• Member, Executive Council, Texas A&M University-Commerce, 2011-present.
• Member, President's Council, Angelo State University, 2009-2011.
• Chair, West Texas Medical Associates Distinguished Lecture Selection Committee, Angelo State University, 2006-2011.
• Chair, Program Review policy writing committee, Angelo State University, 2009-1010.
• Chair, Distance Education Task Force, Angelo State University, 2006-2007.
• Chair, Evidentiary Hearing Committee on Faculty Grievances, College of Arts and Humanities, A&M-CC, 2004-05.
• Chair, Search Committee, A&M-CC Vice-Provost and Associate Vice-President, 2001; Graduate Dean, 2000.
• Campus Coordinator, Teresa Heinz Environmental Scholarships, 2001-2006.
• Chair, Faculty Core Curriculum Committee (FC3), 1999-2000 (interim Chair, 1998).

Civic, Professional and University Service:

• Reviewer, Geoscience and Environmental Science manuscripts, SACNAS Annual Meetings, 2008-present.
• Member, Board of Directors, Concho Educator’s Federal Credit Union, 2008-2011.
• Member, A&M-CC Distance Education Council, 1999-2002.
• A&M-CC Women’s Center: Vice-Chair, 1995-98; Board of Directors, 1995-2000.
• Faculty Sponsor, Islanders Across America student disaster relief volunteers, 1997.
• Textbook Reviewer: Environment: The Science Behind the Stories, 2nd ed., Peterson, 2005
  Environmental Science-Earth as a Living Planet, 2nd ed., Wiley, 1997
• Member, Faculty Senate, Texas A&M University-Corpus Christi, 1994-96.
• Member, Faculty Senate, University of North Dakota Faculty Senate, 1992-1993.
• Candidate for U.S. House of Representatives from North Dakota, statewide race, 1992.
• Lecturer, Kuwaiti National Science Foundation, DE Course on Sand Transport, 1988;
• Vice-President, UPI Broadcasters Association of Texas, 1978-81.
Honors and Awards:

- *Jerry Morris Outstanding Administrator* award, Texas A&M University-Commerce Faculty Senate, 2012.
- First *Distinguished Faculty Achievement Award*, A&M-CC Alumni Association, 2000.
- Inducted: Sigma Xi, 1998
- Awarded academic tenure at A&M-CC, 1996
- NASA awards for *Excellence in Research, Excellence in Curriculum Development; and Excellence in Outreach (Project Earth)*, 1995.
- Inducted: Epsilon Delta Pi (Computer Science Honor Society), 1981.
- RIAA *Gold Record* awards: Wildfire, Michael Murphey, 1975
  Come Monday, Jimmy Buffet, 1974

Major Fundraising Activities:

  $35M project total.
- 1991-93 NASA, Proposal Team Member to create the *North Dakota Space Grant Consortium*, Three-year joint partnership contract for $675K.
- 1992 Shell Oil Company, Proposal Team Member for Cray XMP supercomputer,
  University of North Dakota *Earth System Science Institute*, $12.5M.
- 1988 U.S. Department of Agriculture, Proposal Team Member for congressional appropriation to create an *Earth System Science Institute*. $8.4M.

Grants & Funded Research:

- 2011 National Science Foundation, PI (with Satterfield and Ward), Pathways for Inspiring, Educating, and Recruiting West Texans in the Geosciences, *Diversity in the Geosciences* program, $164,839.
- 2008-09 Office of Naval Research, Co-PI (with Sauncy and Urbanzyk) for Electromagnetic and Crystallographic Characterization of Naturally-Occurring Zeolites with an Emphasis on Passive Detection and Shielding of Undersea Vehicles, $300,000.
- 2007-08 National Science Foundation, Co-PI (with Poppeliers and Satterfield) for High Performance Computing for Undergraduate Geoscience Research, $51,000.
- 2003-06 National Science Foundation, Co-PI (with Silliman et al.) for Cabeza de Vaca *Earthmobile Program*, $580,868
Grants & Funded Research (continued):

2001  ASARCO, Co-PI (with Smith et al.) for Implementation of Management Plans for the Up River Road Conservation Easement, $102,000


1999  ASARCO, PI (with Smith et al.) for Biodiversity Assay, Land Use Survey and Proposed Management Plan for the Bath/Grant/Kelly Property, $164,268.

1998  Consorcio Educativo para la Protección Ambiental, PI for Translingual Environmental Science Education; $5,000.

1994-97  NASA Joint Venture (JOVE) Research Program, Principal Investigator for Calibration and Data Analysis for the Deep Space Program Science Experiment (aka the Clementine mission); Three year contract for $110,000.

1996  Mexican Petroleum Institute, Co-Investigator (with Rodriguez and Jeffress) for A Regional Environmental Assessment of the State of Tabasco from Remote Sensing Data, $225,000.

1995  Office of Naval Research, Co-Investigator (with Price and Jeffress) for Laboratory Instrumentation for Geographic Information Sciences, $296,109 block grant.

1995  Eisenhower Foundation, Co-Investigator (with Duran) for Mathematics Integration Laboratory: Project Earth, $68,000.

1994  A&M-CC Organized Research Grants, Principal Investigator for Installation and Operation of a Geosynchronous Operational Environmental Satellite Receiving Station, $6,250.

1994  Ed Rachael Foundation, Principal Investigator for Satellite Image Acquisition for the Galvan Ranch Field Site, $2,000.

1993  National Science Foundation, Principal Investigator for An Imaging Laboratory Curriculum in the Earth and Planetary Sciences, $48,000.

1992-93  NASA (Japanese Space Agency), Co-Investigator for Preliminary Data Analysis from the JERS-1 Imaging Radar, Data Grant

1990-92  National Center for Resource Innovation, Principal Investigator for TM analysis of prairie pothole variability, $6,000.

1990  NASA Planetary Geology Field Experiment, Consultant for Correlation of mineralogical, textural, sorting, packing, mantling and slope variables with full-spectrum (visible to radar) multivariate image analysis in the Mojave Desert.

1990  UND Faculty Research travel grant to attend First International Conference on the Environment of Mars, Sopron, Hungary, $1,000

Recent Publications and Refereed Presentations:


Recent Publications and Refereed Presentations (continued):


Other Publications and Invited Presentations:


Other Publications and Invited Presentations (continued):


Blount, G., Quaternary Depositional History of a Southwestern Core Desert, Annual meeting of the Quaternary Research Center, Univ. of Washington, Seattle, WA., 1991.


Other Publications and Invited Presentations (continued):

Blount, H.G., II, Space Based Exploration of the Big Bend, Chihuahuan Desert Research Institute, Chihuahuan Desert Discovery, 18, 4-7, 1985.

Graduate Thesis or Research Projects Supervised:

Krieg, Melissa, GulfBase Mosaic project: Landsat Thematic Mapper Composite of the Coastal Gulf of Mexico and GIS Viewer, 31 pp., 2005.
Weaver, Karen, Pre-European Texas: Vegetation Change on the Palo Alto Battlefield National Historic Site, 380 pp., 1999.
Cowart, R., Surface Water Temperature Monitoring from Wesley-Seale Dam to Port Aransas Utilizing AVHRR Satellite Data, 48 p., 1997.
Qualls, D., Playa analysis utilizing the linear mixing model on Landsat 5 thematic mapper data, 44 p., 1991.
Graduate Thesis or Research Projects Supervised (continued):


Citation Index:

Citation Index (continued):


Citation Index (continued):


Citation Index (continued):


Teaching Evaluations for Grady Price Blount

Student Evaluations from:
- Astronomy of the Solar System (1000-level)
- Introduction to Environmental Science (1000-level)
- Geomorphology (3000-level)
- Environmental Geology (3000-level)
- Photogrammetry and Remote Sensing (3000-level)
- Professional Ethics (3000-level)
- Seminar in Coastal and Marine System Science (Graduate)
- Coastal Management (Graduate)

103 responses - 159 responses - 673 responses
RESUME

ANIL R. CHOURASIA

Professor
Department of Physics
Texas A & M University - Commerce
Commerce, Texas, 75429.

Phone: (903) 886-5485
Fax: (903) 886-5480
e-mail: Anil_Chourasia@boisdarc.tamu-commerce.edu

EDUCATION

Ph.D. (Physics) Nagpur University, Nagpur, India (1986)
   Dissertation title: "X-ray Spectroscopic Investigation of some compounds of
   Germanium and Arsenic."

M.Sc. (Physics) Nagpur University, Nagpur, India (1978)

B.Sc. (Physics, Mathematics, Chemistry) Nagpur University, Nagpur, India (1975)

EXPERIENCE

Professor
(Fall 2006-Present) Texas A&M University-Commerce
Department of Physics

Acting Head
(Jun 2004-May 2005) Texas A&M University-Commerce
Department of Physics

Associate Professor
(2001 - Summer 2006) Texas A & M University-Commerce
Department of Physics

Assistant Professor of Physics
(Non-tenure track)
(1996 - 2001) Texas A & M University - Commerce
(Formerly known as East Texas State Univ)
Department of Physics

Visiting Scientist: National Research Institute for Metals, (Jan. 96 - March 96) Tsukuba,
Japan (Extended X-ray Absorption Fine Structure (EXAFS) utilizing
high intensity x-ray beam from modified rotating anode tube.)

Adjunct Faculty:  East Texas State University,  
(1992 - 1996)  Department of Physics  
Research Associate:  East Texas State University,  
(1985-90 & 91-95)  Department of Physics  
Teaching:  Teaching undergraduate and graduate courses in Physics; Guiding graduate and undergraduate students in research theses  
Research:  UHV Techniques  
Thin Film Deposition and Characterization using X-ray Photoelectron Spectroscopy, RHEED and Appearance Potential Spectroscopy  
Low temperature electrical resistivity, magnetoresistance, and Hall Effect.  
Computer Experience:  Familiar with Fortran, Basic, C, DOS, UNIX, computer interfacing. Write my own application programs.  
Research Scholar:  Nagpur University, Nagpur, India (1979-1985). Analyzed the Extended X-ray Absorption Fine Structure (EXAFS) associated with the Ge K absorption discontinuity in the rare earth intermetallics of the type RGe2. Studied the electronic structure of arsenic chalcogenides with the help of X-ray absorption spectroscopy.  

GRANTS

Internal

TEES  1997  
Organized Research, A&M-Commerce  2000-01  
Organized Research, A&M-Commerce  2005-06  

External

*  NSF Project “NIRT-Molecular Nanomagnets: Magnetic and Electronic Properties of Novel Magnetic Nanostructures and Nanostructured Materials” (§ 7000)  
  Summer 2003  
  Texas A&M Univ- College Station  
*  Research Corporation  
  “Chemical Reactivity at Hf/SiO2 Interface”  
  2005-2007
(43,650)

PROFESSIONAL MEMBERSHIPS

American Physical Society
American Vacuum Society

COMMITTEE SERVICES

Physics Senator
Facilities and Scheduling Committee
Departmental Graduate Co-ordinator
Departmental Library Representative
Coordinator, Departmental Scholarship Committee
Various Departmental and University Committees

EXTERNAL RESEARCH COLLABORATION

The University of Houston
The University of Arlington
University of North Texas
Royal Melbourne Institute of Technology, Australia

HONORS AND AWARD

Listed in Who’s Who Among America’s Teachers
(Educational Communications, Inc., Lake Forest, IL) 2000
Sigma Xi Research Award 1992
Robert A. Welch Foundation Fellowship 1991-1995
Robert A. Welch Foundation Fellowship 1985-1990
Junior & Senior Research Fellowship,
Council of Scientific & Industrial Research,
New Delhi, India 1979-1984
Open Merit Scholarship, Govt. of
Maharashtra, India 1976-1978
Talent Development in Math, Govt. of Maharashtra 1972-1975

THESES

Graduate
Christi Emery  Summer 1998
Steve Hood    Spring 1999
Sangho Bae    Spring 2002
Tao Jiang     Fall 2002
S. H. McKinney May 2003
Richard Miller Summer 2006
Hong Dong     Summer 2009
Josh Edmondson Summer 2011

Undergraduate (Honors Thesis)
Richard Miller        May 2004

PUBLICATIONS IN REFEREED JOURNALS

1. Chemical shifts in K absorption discontinuities of germanium and selenium in some amorphous compounds.
   Y. L. Rao, A. R. Chourasia & C. Mande.

2. EXAFS study of intermetallics of the type RGe₂ ( R = La, Ce, Pr, Nd, Sm, Gd, Tb, Dy, Ho, Er and Y ).
   A. R. Chourasia, V. D. Chafekar, S. D. Deshpande, V. B. Sapre & C. Mande.

3. EXAFS study of intermetallics of the type RGe₂ ( R = La, Ce, Pr, Nd, Sm, Gd, Tb, Dy, Ho, Er and Y ) Part I: Determination of Ge-Ge distances.
   A. R. Chourasia, V. D. Chafekar, S. D. Deshpande & C. Mande.

4. EXAFS study of intermetallics of the type RGe₂ ( R = La, Ce, Pr, Nd, Sm, Gd, Tb, Dy, Ho, Er and Y ) Part II: Determination of Ge-R distances.
   A. R. Chourasia, V. D. Chafekar & C. Mande.

5. X-ray spectroscopic study of arsenic chalcogenides of the type As₂X₃ ( where X = O,S,Se and Te ).
   C. Mande & A. R. Chourasia.

   D. R. Chopra, A. R. Chourasia & P. V. Prasad.

8. XPS study of the Ni/Si oxide/Si Interface. 

A. R. Chourasia and D. R. Chopra. 

10. Soft X-ray Appearance Potential study of Ni$_{74}$Fe$_{26}$. 
A. R. Chourasia and D. R. Chopra. 

11. SXAPS study of Nd$_2$Fe$_{14}$B. 
A. R. Chourasia and D. R. Chopra. 

12. SXAPS study of Pr$_2$Fe$_{14+x}$Co$_x$B. 
A. R. Chourasia and D. R. Chopra. 

A. R. Chourasia and D. R. Chopra. 

A. R. Chourasia and D. R. Chopra. 

15. Deposition of Diamond Films at Low Pressures and their Characterization by Positron annihilation, Raman, SEM, and XPS. 


18. Diamond and Amorphous Carbon Films.


D. R. Chopra, A. R. Chourasia, Li Chen, A. H. Bensaoula, and A. Bensaoula.


22. Angle-resolved X-ray Photoemission study of CaF$_2$/Si(111) Interfaces.

23. X-ray photoelectron study of TiN.
A. R. Chourasia and D. R. Chopra


25. A Study of Si$_3$N$_4$ by XPS.
A. R. Chourasia and D. R. Chopra

A. R. Chourasia, D. R. Chopra and G. Wiesinger
27. Appearance Potential Study of PrMn$_2$ and SmMn$_2$ Intermetallics.
   A. R. Chourasia, M. A. Seabolt, R. L. Justiss, D. R. Chopra, and G. Wiesinger

28. Elemental Manganese studied by X-ray Photoelectron Spectroscopy using Mg and Zr
   Radiations.
   A. R. Chourasia and D. R. Chopra

29. X-ray Photoelectron study of TiN/SiO$_2$ and TiN/Si Interfaces.
   A. R. Chourasia and D. R. Chopra

30. A Study of Si-Compounds by Zr La Photoelectron Spectroscopy.
    A. R. Chourasia, S. J. Hood, and D. R. Chopra

    A. R. Chourasia

32. A Study of CrNx Thin Films by X-ray Photoelectron Spectroscopy.
    Christi Emery, A. R. Chourasia, and P. Yashar

33. Soft X-ray Appearance Potential Study of Rare Earth-manganese Compounds.
    A. R. Chourasia and S. D. Deshpande
    AIP CP475, Applications of Accelerators in Research and Industry,
    Edited by J. L. Duggan and I. L. Morgan
    488-491 (1999).

34. Spin dynamics and absence of a central peak anamoly in La$_{0.67}$Ca$_{0.33}$MnO$_3$.

35. Core level XPS spectra of Cr and N in chromium nitride films
    A. R. Chourasia

36. Auger electron appearance potential spectroscopy study of CrN$_x$ Films.
    A. R. Chourasia and S. J. Hood

37. Core level XPS spectra of silicon carbide using Zirconium and Magnesium radiation
A. R. Chourasia  

38. Composition dependence of the spin wave stiffness parameter in La\(1-x\)Ca\(x\)MnO\(3\) CMR materials  

39. Effects of Growth and Postgrowth Parameters on the Microstructure and Copper distribution in Al(Cu)/SiO\(2\) Thin Films  
N. Hozhabri, K. M. Watson, S. C. Sharma, and A. R. Chourasia  

40. A. Study of Amorphous Ti-Ni Alloys by X-ray Photoelectron Spectroscopy  
M. A. Seabolt, W. R. Ogden, A. R. Chourasia, and A. Ishida  

41. Auger Parameter of Hafnium in Elemental Hafnium and in Hafnium oxide  
A. R. Chourasia and R. L. Miller  

42. Core level of Silicon Dioxide using zirconium and magnesium radiations  
A. R. Chourasia  

43. Core level spectroscopy of elemental hafnium and hafnium dioxide  
R. L. Miller, S. H. McKinney, and A. R. Chourasia  

44. X-ray Photoemission study of the oxidation of hafnium  
A. R. Chourasia, J. L. Hickman, R. L. Miller, G. A. Nixon, and M. A. Seabolt  

45. Investigation of Chemical Reactivity at the M/CuO Interfaces (where M = Fe, Co, or Ni)  
A. R. Chourasia  

46. Chemical Reactivity at Fe/CuO Interface Studied by X-ray Photoelectron Spectroscopy  
H. Dong, J. Edmondson, R. L. Miller, and A. R. Chourasia  
Submitted to Thin Solid Films
REVIEW ARTICLES AND BOOK CONTRIBUTION

   D. R. Chopra and A. R. Chourasia.

   D. R. Chopra and A. R. Chourasia.
   "Characterization of semiconductor materials" Vol 1.

   Chopra, and A. R. Chourasia.

4. Surface Characterization.
   J. Nemanich, A. R. Chourasia and D. R. Chopra.

5. Surface Characterization
   J. Nemanich, D. R. Chopra and A. R. Chourasia

6. Appearance Potential Spectroscopy
   D. R. Chopra and A. R. Chourasia

7. X-ray Photoelectron Spectroscopy
   D. R. Chopra and A. R. Chourasia
   Chapter contribution to the Handbook of Analytical Chemistry, (Prentice Hall,
   1997), Chapter 43, pp. 809-827.

8. Auger Electron Spectroscopy
   A. R. Chourasia and D. R. Chopra
   Chapter contribution to the Handbook of Analytical Chemistry, (Prentice Hall,
   1997), Chapter 42, pp. 791-808.

9. Appearance Potential Spectroscopy: A Surface Sensitive Technique to Characterize
   Materials
10. Appearance Potential Spectroscopy
A. R. Chourasia
PAPERS PRESENTED AT CONFERENCES AND SYMPOSIA

1. Study of the 4f levels in Lanthanides by Appearance Potential Spectroscopy. American Physical Society, April 4, 1986 at The Univ. of Texas at Dallas, Texas.


3. XPS study of Transition Metal-Silicon Interfaces. American Physical Society, March 6, 1987 at Abilene Christian University, Abilene, Texas.

4. Appearance Potential Study of Ni$_{74}$Fe$_{26}$. March 4, 1988 at the 91st Annual Meeting of Texas Academy of Science, Commerce, Texas.


18. Study of CrN$_x$ Films by X-ray Photoelectron Spectroscopy
Christi Emery and A. R. Chourasia
Texas Sections of the AAPT, APS, and SPS, March 19-21, San Antonio, Texas

19. Electronic Structure Study of Amorphous and Crystalline Ti-Ni Films by X-ray Photoelectron Spectroscopy
Lucian B. Holmes and A. R. Chourasia
Texas Sections of the AAPT, APS, and SPS, March 19-21, San Antonio, Texas

20. The study of CrN$_x$ films by X-ray Photoelectron Spectroscopy
Christi Emery and A. R. Chourasia
5th annual A & M - Commerce Sigma Xi Student Research Forum, April 9, 1998

21. Electronic Structure study of amorphous and crystalline Ti-Ni films by X-ray Photoelectron Spectroscopy
Lucian B. Holmes and A. R. Chourasia
22. Reactive ion etching of BN and GaN using Cl$_2$/Ar and BCl$_3$/Cl$_2$/Ar plasmas
N. Medelci, A. Tempez, E. Kim, N. Badi, D. Starikov, I. Berichev, and A. Bensaoula
SVEC, University of Houston, Houston, TX
The Texas Surface Science Round Up
May 27, Houston, Texas

23. Photoenhanced RIE of III-V Nitrides in BCl$_3$/Cl$_2$/Ar/N$_2$ Plasmas
N. Medelci, A. Tempez, E. Kim, O. Kameli, N. Badi, I. Berichev, D. Starikov, A.
Bensaoula
SVEC, University of Houston, Houston, TX
A. R. Chourasia, A & M-Commerce
45th American Vacuum Society International Symposium, Nov. 2-6, 1998, Baltimore, MD.

24. Soft x-ray appearance potential study of Rare Earth Manganese Compounds.
A. R. Chourasia and S. D. Deshpande
Fifteenth International Conference on the Application of Accelerators in Research
and Industry, Nov. 4-7, 1998, Denton, Texas.

S. D. Deshpande, S. Prabhu, and A. R. Chourasia
Fifteenth International Conference on the Application of Accelerators in Research and Industry, Nov. 4-7, 1998, Denton, Texas.

26. Unusual T-dependence of the spin wave stiffness in La-Ca Manganites
J. J. Rhyne, H. Kaiser, J. F. Mitchell (Argonne National Lab.)
And A. R. Chourasia
American Physical Society Centennial Meeting, March 20 - 26, 1999, Atlanta, Ga

27. Electronic Structure Study of CrNx Thin films
K. D. Steed, S. J. Hood, C. Emery, and A. R. Chourasia
American Physical Society Centennial Meeting, March 20 - 26, 1999, Atlanta, Ga

Potential Spectroscopy
S. H. McKinney, J. A. Yancey, and A. R. Chourasia
American Physical Society Centennial Meeting, March 20 - 26, 1999, Atlanta, Ga
29. Investigation of the Electronic Structure of Lanthanum-Calcium-Manganese-Oxide
S. Bae, S. J. Hood, and A. R. Chourasia
American Physical Society Centennial Meeting, March 20 - 26, 1999,
Atlanta, Ga

30. An algorithm to analyze Appearance Potential Spectrum
Jeremy Yancey and A. R. Chourasia
Sigma Xi Annual Student Research Forum, April 15, 1999, A & M - Commerce

31. APS study of Iron, Cobalt and Nickel
S. H. Ryan McKinney and A. R. Chourasia
Sigma Xi Annual Student Research Forum, April 15, 1999, A & M - Commerce

32. A study of La-Ca-Mn-O compounds by X-ray Photoelectron Spectroscopy
S. Bae and A. R. Chourasia
Sigma Xi Annual Student Research Forum, April 15, 1999, A & M - Commerce

28. AEAPS and XPS study of CrN thin films
S. J. Hood and A. R. Chourasia
Sigma Xi Annual Student Research Forum, April 15, 1999, A & M - Commerce

34. Determining Density of Conduction Band States from
Appearance Potential Spectroscopy
Jeremy A. Yancey and A. R. Chourasia
Texas Section of American Physical Society, October 29 - 30, 1999, Austin, TX

35. Appearance Potential Spectroscopy Study of CrNx Thin Films
A. R. Chourasia and S. J. Hood
Quantitative Surface Analysis - 11, July 3 - 7, 2000,
University of Surrey, Guildford, UK

36. Determination of thickness of deposited films using x-ray
photoelectron spectra
K. Steed and A. R. Chourasia
Eighth Sigma Xi Annual Research Forum, A & M - Commerce, April 19, 2001

37. Importance of background in XPS spectra in estimating the density of
states at the Fermi level
M. Seabolt and A. R. Chourasia
Eighth Sigma Xi Annual Research Forum, A & M - Commerce, April 19, 2001

38. Ti 2p AEAPS spectra in amorphous and crystalline Ti-50%Ni
compounds
S. McKinney and A. R. Chourasia
Eighth Sigma Xi Annual Research Forum, A & M - Commerce, April 19,
39. Estimation of density of states in Crystalline Titanium-Nickel Compounds using X-ray Photoelectron Spectroscopy
M. A. Seabolt and A. R. Chourasia
Joint Fall Meeting of the Texas Section of the American Physical Society, Texas Christian University, Fort Worth, Texas, October 6, 2001

40. Oxidation of Copper studied by X-ray Photoelectron Spectroscopy
T. Jiang and A. R. Chourasia
Joint Fall Meeting of the Texas Section of the American Physical Society, Texas Christian University, Fort Worth, Texas, October 6, 2001

41. A study of unoccupied density of states in La1-xCaxMnO3 compounds by Auger electron appearance potential spectroscopy
C. A. Watson, A. R. Chourasia, and J. F. Mitchell
American Physical Society March Meeting, Indianapolis, IN, March 18-22, 2002

42. Background effects in the core level XPS spectra of Ti-Ni alloys
M. A. Seabolt, A. R. Chourasia, and A. Ishida
American Physical Society March Meeting, Indianapolis, IN, March 18-22, 2002

43. Electronic structure study of Ti-Ni amorphous and crystalline alloys by Auger electron appearance potential spectroscopy
S. H. McKinney, A. R. Chourasia, and A. Ishida
American Physical Society March Meeting, Indianapolis, IN, March 18-22, 2002

44. AEAPS Study of Ti-Ni Alloys
S. H. McKinney and A. R. Chourasia

45. Appearance Potential Spectroscopy study of Ti-Ni Alloys
A. R. Chourasia, S. H. McKinney, C. A. Watson, and A. Ishida
Invited Talk
17th International Conference on the Application of Accelerators in Research and Industry, Denton, TX Nov. 12-16, 2002

46. Auger Parameter of Elemental Hafnium and Hafnium oxide
R. Miller and A. R. Chourasia
Texas Section of APS, Stephenville, TX, April 2-3, 2004

47. Oxidation of Hafnium as studied by X-ray Photoelectron Spectroscopy
A. R. Chourasia and R. Miller  
Texas Section of APS, Stephen F. Austin State University, Nacagdoches, TX, March 3-5, 2005

48. Auger parameter of aluminum  
Texas Section of APS, University of Houston, Houston, TX, Oct. 21-22, 2005.

49. Auger parameter of aluminum  
R. Miller and A. R. Chourasia  
American Physical Society, Baltimore, MD, March, 2006

50. Examination of oxidation of silicon using x-ray photoelectron spectroscopy  
A. R. Chourasia  
Ab Initio Modelling in Solid State Chemistry, Torino, Italy, Sep. 3-8, 2006

51. Influence of Hamiltonian on the properties of NaCl  
Ryan Jacob and A. R. Chourasia  
Texas Section of American Physical Society, The University of Texas at Arlington, TX, Oct. 5-7, 2006

52. Interaction of Hafnium oxide with Silicon  
Richard Miller and A. R. Chourasia  
Texas Section of American Physical Society, The University of Texas at Arlington, TX, Oct. 5-7, 2006

Ryan Jacob and A. R. Chourasia  
March Meeting of the American Physical Society, Denver, CO, March 3-9, 2007

54. Study of Oxidation of silicon by X-ray Photoelectron Spectroscopy  
W. Johnston, Ryan Jacob, and A. R. Chourasia  
March Meeting of the American Physical Society, Denver, CO, March 3-9, 2007

55. Appearance potential Study of Ti-Ni Alloys  
S. H. McKinney and A. R. Chourasia  
March Meeting of the American Physical Society, Denver, CO, March 3-9, 2007

56. Interaction between silicon and thin films of hafnium oxide  
John Hickman, Steven McDonough, and A. R. Chourasia
57. Oxidation of Hafnium studied by X-ray Photoelectron Spectroscopy
    John Hickman, R. L. Miller, G. A. Nixon, M. A. Seabolt, and
    A. R. Chourasia
    March Meeting of American Physical Society, New Orleans, LA,
    March 10-14, 2008

58. Density of States of Silicon, Silicon Oxide, Silicon Nitride and
    Silicon Carbide
    Hong Dong and A. R. Chourasia
    March Meeting of American Physical Society, New Orleans, LA,
    March 10-14, 2008

59. Partial Density of States of Silicon in Silicon Compounds
    A. R. Chourasia

60. Electronic Structure of Aluminum Compounds
    Hong Dong and A. R. Chourasia,
    American Physical Society, Pittsburgh, PA, March 2009

61. Study of oxidation of titanium by X-ray photoelectron
    Spectroscopy
    A. R. Chourasia and Hong Dong
    American Physical Society, Pittsburgh, PA, March 2009

62. Investigation of the thickness of titanium dioxide by x-ray photoelectron spectroscopy
    A. R. Chourasia
    American Physical Society, Portland, OR, March 2010

63.
**BAO-AN LI, Ph.D.**
Department of Physics and Astronomy  
Texas A&M University-Commerce  
Commerce, TX 75429-3011, USA  
Phone: (903) 886-5478 (O), (512) 439-9955 (Cell)  
Fax: (903) 886-5480  
Email: Bao-An.Li@TAMUC.edu

*(Last updated on Jan. 3, 2013)*

**Born in China in 1962, a naturalized US citizen**

**Education**
Ph.D. in Physics, December 1991, Michigan State University  
B.S. in Physics, July, 1983, Lanzhou University, China

**Administrative Positions Held**
Head, Department of Physics and Astronomy, Texas A&M University-Commerce  
Aug. 15, 2006-Aug. 23, 2011

Interim Chair, Department of Chemistry and Physics, Arkansas State University (ASU),  
May 15, 2003 – May 14, 2004

**Faculty and Research Positions Held**
Professor of Physics with Tenure, Department of Physics and Astronomy, Affiliated faculty in the Department of Chemistry, TAMU-Commerce, Aug. 15, 2006-present

Professor of Physics (2004-Aug. 15, 2007) *(Granted one-year leave with tenure at ASU from Aug. 15 2006 to Aug. 14, 2007 while being the department head with tenure at TAMU-Commerce)*, Associate Professor (2000 – 2004), Assistant Professor (1998 – 2000), Department of Chemistry and Physics, Arkansas State University

Associate Research Scientist at the Cyclotron Institute & Visiting Assistant Professor at the Department of Physics, Texas A&M University, College Station, Jan. 1994 - Aug. 1998

Postdoctoral Research Associate, Hahn-Meitner Institute & Free University of Berlin, Germany, March 1992 - Dec. 1993

Visiting Research Scholar, The Niels Bohr Institute, University of Copenhagen, Denmark,  
June - Aug. 1987

Visiting Research Scholar, Oak Ridge National Laboratory, USA, July 1986 - June 1987

**Guest Professorship**
Chang Jiang Chair Professor, Xian Jiao Tong University, 2010-present  
Guest Professor of Physics, Institute of Modern Physics, Chinese Academy of Science, 1997-present  
Guest Professor of Physics, Shanghai Institute of Applied Physics, 2004-present  
Guest Professor of Physics, Shanghai Jiao Tong University, 2007-present
Achievement Awards
Regents Professor Award, Texas A&M University System, 2012
Provost Awards for Research and Creative Activity, TAMU-Commerce, 2011
Outstanding Researcher of the Year Award, TAMU-Commerce, 2011
H.M. Lafferty Distinguished Faculty Award for Scholarship and Creative Activity, TAMUC, 2009
Dean’s Distinguished Faculty Achievement Award, College of Sciences and Math, ASU, 2004
Board of Trustees Distinguished Faculty Achievement Award for Scholarship, ASU, 2000

Statistics of Publications: total 244
Book published: 1
Refereed journal articles published: 170 (13 in PRL)
Articles in conf. proceedings and invited book chapters: 67
Submitted to refereed journals: 6

Statistics of Talks: total 224
Invited talks at conferences: 94
Colloquiums and seminars: 108
Contributed talks at conferences: 22
Co-authored talks given by others: MANY

Statistics of publications:
8193 citations, H-Index of 49 on Google Scholars as of Jan. 3, 2013 (4692 since 2007)

Research Grants Received in the USA (PI of $1,621,279 and Co-PI of $1,586,363)

1. Constraining the Symmetry Energy of Neutron-Rich Nucleonic Matter at Supra-Saturation Densities
   Bao-An Li (PI), NSF, $171,000, Aug. 1, 2011-July 31, 2014

2. Research Experience for Undergraduates (REU) in Physics and Astronomy
   Bao-An Li (PI) and Carlos Bertulani, NSF, $240,000, May 1, 2011-April 30, 2014

3. Extracting the symmetry energy of dense neutron-rich matter from astrophysical observations
   Bao-An Li (PI) and Will Newton, NASA, $399,878, Jan.1, 2011-Dec. 31, 2014

4. Probing the density and momentum dependence of the nucleon isovector potential in neutron-rich nuclear matter with heavy-ion reactions
   Bao-An Li (PI), NSF, $150,000, Aug.1, 2008-July 31, 2012

5. Scholarships and Research Experiences for Transfer Students to Excel in Science and Engineering

6. M2T2 - Maximizing Motivation, Targeting Technology
   Gil Naizer (PI), Tracy Henley, Bao-An Li and Sam Saffer, NSF, $992,663, Jan. 1, 2009-Dec. 31, 2012

8. Constraining the changing rate of the gravitational constant G using terrestrial nuclear laboratory data,
   Bao-An Li (PI), Research Corporation for the Advancement of Sciences $37,800, 
   July 31, 2007-July 30, 2010

9. Probing the isospin-dependence of in-medium nuclear effective interactions at the Rare Isotope Accelerator

10. Equation of state of dense neutron-rich matter in neutron stars
    Bao-An Li (PI), Tony Hall and Andy Sustich

11. Astrophysical applications of the nuclear equation of state
    Arkansas-SILO Advisory Council Undergraduate Research Fellowships, $3,900
    Bao-An Li (PI) with my undergraduate research student Hunter Broadaway,
    Jan. 1 – Dec. 31, 2005

12. Probing the equation of state of neutron-rich matter at RIA
    Bao-An Li (PI), National Science Foundation, $46,695, Sept.1, 2004 to Aug. 31, 2005.

13. Transport theory with Bose-Einstein statistics
    Bao-An Li (PI), National Science Foundation, $15,000, Aug.1, 2003 - July 31, 2004

14. Ultra-relativistic heavy-ion collisions and isospin physics with radioactive beams

15. Isospin physics with radioactive beams
    Bao-An Li (PI), Subcontract, National Superconducting Cyclotron Laboratory, $8,000, 
    July, 2004

16. Theoretical study of ultra-relativistic heavy-ion collisions

17. Development of a multi-phase transport model for heavy-ion collisions

18. Computer simulation of nuclear reactions
    Arkansas-SILO Advisory Council Undergraduate Research Fellowships, $3,900
Research Grants Received in China

19. Theoretical nuclear physics and astrophysics
   Bao-An Li (PI), RMB 1,000,000, Ministry of Education of China,
   March 1, 2010-Feb. 28, 2013 (Managed through Xian Jiao Tong University)

20. Investigation of exotic properties of dense neutron-rich matter at the Cooler Storage Ring
   Bao-An Li (PI), Wenlong Zhan, Hu-Shan Xu, Wei Zuo, Xi-Guo Lee and Gao-Chan Yong,
   RMB 250,000, National Natural Science Foundation of China, Jan. 1, 2008-Dec. 31, 2010
   (Managed through the Institute of Modern Physics, Chinese Academy of sciences)

21. Nuclear matter under extreme conditions
   Wenlong Zhan (PI, Chinese Academy of Science), Haiyan Gao (Duke), Huanzhong Huang (UCLA),
   Bao-An Li (TAMU-Commerce), Xin-Nian Wang (LBNL) and Nu Xu (LBNL),
   RMB 6,000,000, National Natural Science Foundation of China, Jan., 2005- Jan. 2010
   (Managed through the Institute of Modern Physics, Chinese Academy of sciences)

Postdoctoral research associates supervised:
   Dr. Plamen G. Krastev (Aug. 2006- Aug. 2008, now a research scientist at Harvard U.),
   Dr. William G. Newton (Sept. 2008-Sept. 2009, now an Assist. Prof. at TAMU-Commerce)
   Dr. Chang Xu (Feb. 2009- Jan. 31, 2011, now an associate professor at Nanjing University)
   Dr. Adeola A. Adeluyi (Aug. 2009-Aug. 2010)
   Dr. Li Ou (Nov. 1, 2010-Oct. 30, 2011, now an associate professor at Guangxi Normal University)
   Dr. Yuan Tian (Oct. 22, 2010-Oct. 21, 2011, now an associate professor at China Institute of
   Atomic Energy)
   Dr. Jun Xu (Jan. 1-Dec. 31, 2012)
   Dr. Farrooh Fattoyev (Jan. 4, 2012-present)

Visiting Research Scientists hosted:
   Prof. Jian-Ye Liu, Chinese Academy of Science, 1 month in 2002
   Prof. Lie-Wen Chen, Shanghai Jiao Tong University, 3 months in 2007, 3 months in 2010
   Prof. Wei-Zhou Jiang, Southeast University, China, 1.5 years during 2007-2008
   Prof. De-Hua Wen, South China U. of Science and Technology, 1 year during 2008-2009,
   2-month in 2011
   Dr. Gao-Chan Yong, Chinese Academy of Science, 6 months in 2007, 6 months in 2009
   Prof. Fuli Li, Xian Jiao Tong University, April 10-May 31, 2010
   Prof. Ang Li, Xiamen University, March 14, 2011-Aug. 31, 2011.
Professional Services


4. Member of the Editorial Board, Chinese Physics C, 2007-present

5. Associate Editor & referee, Journal of Arkansas Academy of Science, 2000-2006


7. Chair of the organizing committee, 88th Arkansas Academy of Science Annual Meeting


9. International Advisory Committee, WCI (World Consensus Initiative) in intermediate energy nuclear physics

10. Reaction theory coordinator, RIA theory working group


13. Member, writing committee of the RIA Theory Blue Book


16. International Advisory Committee, 10th International Conference on Nucleus-Nucleus Collisions, Beijing, China, Aug. 16-21, 2009

17. International Coordinator for the program "Relativistic many-body problems for heavy and super-heavy nuclei” at the Kavli Institute for Theoretical Physics, Beijing, China, June 8-27, 2009


19. International Advisory Committee, Pan-American Advanced Studies Institute on Rare Isotopes, Joao Pessoa, Brazil, Aug. 1-13, 2010

20. Chair, Invited Session on the Symmetry Energy Term of the Nuclear EOS, Fall 2010 APS/DNP Meeting, Santa Fe, NM, Nov. 2-6, 2010

21. Chair of the Organizing Committee, Topical Workshop on Nuclear Symmetry Energy and Astrophysics, Xian, China, Dec. 16-20, 2010

22. Local Organizing Committee, 2011 Fall Meeting of the APS-Texas section, Texas A&M University-Commerce
23 Coordinator for the session on “Nuclear EOS and effective interaction” of the 2011 Gordon Research Conference on Nuclear Chemistry, Colby-Sawyer College, NH, June 12-17, 2011
25 Co-Chair, organizing committee of the 11th International Conference on Nucleus-Nucleus Collisions, San Antonio, Texas, USA, May 27-June 1, 2012
26 US coordinator and a member of the Governing Board of the China-US Theory Institute for Physics with Exotic Nuclei (CUSTIPEN), 2011-present
28 International Advisory Committee, International Workshop on Nuclear Dynamics, Shenzhen, China, Nov. 6-9, 2012
29 Co-Chair, International Workshop on Nuclear Dynamics and Thermodynamics, College Station, Texas, Aug. 19-22, 2013
31 Program Advisory Committee (PAC) of the Korea Rare Isotope Science Project, 2012-present
32 International Advisory Committee, 12th International Conference on Nucleus-Nucleus Collisions (NN2015), Catania, Italy, 2015

Services to the University Communities

- Director, REU (Research Experience for Undergraduates) Program in Physics and Astronomy, TAMU-Commerce, 2011-present
- Member, search committee for the Vice Provost and Dean of Graduate School, TAMU-Commerce, 2012-present
- Chair, Search Committee for the head of the Department of Physics and Astronomy, TAMU-Commerce, 2012
- Member, Search Committee for the Dean of the College of Science, Engineering and Agriculture, TAMU-Commerce, 2011
- Member, Search Committee for the grant writer at the Graduate School and Research, TAMU-Commerce, 2011
- Member, University Ad Hoc Hearing Committee, TAMU-Commerce, 2010
- Member, university taskforce on restructuring the College of Arts and Sciences, TAMU-Commerce, 2010
- Coordinator, Physics and Astronomy Colloquium, 2006-present
- Director, GK-12 pilot program, TAMU-Commerce, 2009-2010
- Member, university taskforce on faculty annual evaluation, TAMU-Commerce, 2009
- Member, special university inquiry committee on research ethics,
TAMU-Commerce, 2008
- External Review Panelist for the Department of Chemistry, TAMU-Commerce, 2007
- Member, Search Committee for the Head of the Department of Computer Science, TAMU-Commerce, 2008
- Member, University Research Advisory Committee, TAMU-Commerce, 2007-2010
- Member, Executive Advisory Committee, Arkansas Bioscience Institute, May, 2004-2006
- Member, ASU Information Technology Advisory Committee, June, 2005-2006
- Member, ASU Faculty Advisory Group to the Vice Chancellor for Research and Academic Affairs, May, 2004-2006
- Member, ASU Research Advisory Council, Aug. 2003 – 2004
- Judge, Northeast Arkansas Science Fair, 1998-2006
- Member, resolution committee, Arkansas Academy of Science, 2001-2006
- Judge, student award competition, Arkansas Academy of Science, 2001-2006
- Member, University International Programs Committee, ASU, 2000-2003
- Member, Board of Trustees Distinguished Faculty Achievement Award Committee, ASU, 2002-3
- Member, Search Committee for the Dean of the College of Sciences and Mathematics, ASU, 2002
- Member, College Radiation Safety Committee, ASU, 2002-2006
- Chair, Physics Faculty Search Committee, ASU, 2000 and 2005
- Member, Physics Programs Committee, 1999-2006
- Coordinator, Physics Program in the Department of Chemistry and Physics, 2003-2006, ASU
- Co-chair, Department Computer Committee, ASU, 2001-2003
- Coordinator, physics seminars, ASU, 1999-2006
- Member, College Committee for Promotion, Tenure and Retention, ASU, 2004-2006

Teaching Experience

A) Undergraduate Courses:
- Thermal Physics (TAMU-Commerce)
- Math Physics (ASU, TAMU-Commerce)
- Classical Mechanics (TAMU-Commerce)
- Current Physics and Astronomy Problems (TAMU-Commerce)
- Quantum Mechanics (ASU, TAMU-Commerce)
- Introduction to Space Science/Astronomy (ASU)
- Nuclear and Particle Physics (ASU)
- Calculus-based University Physics I & II (ASU)
- Algebra-based General Physics I & II (ASU)
- (Integrated Lecture and Lab) Fundamental Physics I & II for Engineers (ASU)
- Calculus-based College Physics I & II (TAMU-College Station)
- Algebra-based General Physics I & II (TAMU-College Station)

B) Graduate Courses:
- Math Physics (TAMU-Commerce)
- Introduction to Theoretical Mechanics (TAMU-Commerce)
• Quantum Mechanics
• Graduate seminars 501 (TAMU-Commerce)

Research Students Advised
• Ph.D. student: Gong-Chan Yong, Institute of Modern Physics, Chinese Academy of Science (received his Ph.D. in 2008, now an associate professor in China)
  Gao-Feng Wei, Xian Jiaotong University, 2011-present

• MS graduate students:
  Guang Song, Texas A&M University, College Station
  Aaron Worley, Joshua Edmondson, Michael Gearheart, WeiKang Lin, Lin-Zhi Cai and Jeff Campbell, TAMU-Commerce
  Xunchao Zhang, MS student, Chinese Academy of Science,
  Xiao Han, Xian Jiaotong University

• Undergraduate research students:
  Joshua Buckley, Mark Bryant, Matt Tilley, Amanda Evens, Charles Teal, Christina Griffis, Gregory Slayton, Hunter Broadway, Lucas Jennings, Michael Clay, Richard Nobra,
  Joe Hearon, Justin Walker, Joshua Hooker, D’Terrian Johnson, Cleatrick Rodgers, Cory Ward,
  Jose Carvajal, Zachary Martinot, Jessica Zimmerman

• High school student: Charles Milner (went to Yale University in 2004, now works at Google).
List of Publications

(I)  **Book:**

1)  *Isospin Physics in Heavy-Ion Collisions at Intermediate Energies*
Eds. *Bao-An Li* and W.U. Schröder

(II)  **Refereed publications in journals:**

176)  Empirical values of nucleon isovector potential and neutron-proton effective mass splitting in neutron-rich nucleonic matter at normal density
*Bao-An Li* and Xiao Han,

*Bao-An Li*, Lie-Wen Chen, Farrukh J. Fattoyev, William G. Newton and Chang Xu,

174)  Efficacy of crustal superfluid neutrons in pulsar glitch models
J. Hooker, W.G. Newton and *Bao-An Li*
Submitted to MNRAS (2013)

173)  Constraining the High-Density Behavior of Nuclear Symmetry Energy with the Tidal Polarizability of Neutron Stars

172)  How well do we know the composition of the neutron star crust?
W.G. Newton, Michael Gearheart and *Bao-An Li*,

171)  Probing in-medium spin-orbit potential with intermediate-energy heavy-ion collisions

170)  Nuclear constraints on non-Newtonian gravity at femtometer scale
*Jun Xu, Bao-An Li*, Lie-Wen Chen and Hao Zheng,

169)  Pure Neutron Matter Constraints and Nuclear Symmetry Energy
F. J. Fattoyev, W. G. Newton, Jun Xu, *Bao-An Li*
168) Non-Newtonian gravity in finite nuclei
Jun Xu, Bao-An Li, Lie-Wen Chen, Hao Zheng

167) Disentangling effects of collision geometry and symmetry energy in U+U collisions

166) Pure Neutron Matter Constraints on the Relativistic Mean-Field and
Skyrme-Hartree-Fock Models

165) Single-nucleon potential decomposition of the nuclear symmetry energy
Rong Chen, Bao-Jun Cai, Lie-Wen Chen, Bao-An Li, Xiao-Hua Li, Chang Xu,
PHYSICAL REVIEW C85, 024305 (2012)

164) How sensitive is the neutron star r-mode instability window to the nuclear equation
of state?

163) Large-mass neutron stars with hyperonization
Wei-Zhou Jiang, Bao-An Li and Lie-Wen Chen,

162) Delineating effects of tensor-force on the density dependence of nuclear symmetry energy
Chang Xu, Ang Li and Bao-An Li,

161) Can the maximum mass of neutron stars rule out any equation of state of dense
stellar matter before gravity is well understood?

160) Upper limits on the observational effects of nuclear pasta in neutron stars
Michael Gearheart, William G. Newton, Joshua Hooker and Bao-An Li,

159) Magnetic effects in heavy-ion reactions at intermediate energies

158) Energy release from hadron-quark phase transition in neutron stars and the axial
$\omega S$-mode of gravitational waves
Weikang Lin, Bao-An Li, Jun Xu, Che Ming Ko, De-Hua Wen,

157) Analytical relations between nuclear symmetry energy and single nucleon potentials
in isospin asymmetric nuclear matter

156) Nuclear symmetry energy and its density slope at normal density extracted from global nucleon optical potentials


154) Transition density and pressure in hot neutron stars,

153) An isospin and momentum dependent effective interaction for nucleons and hyperons and the hybrid stars


151) Improved single particle potential for transport model simulations of nuclear reactions induced by rare isotope beams

150) Studies of N/Z equilibrium in peripheral collisions using fragment yield ratios

149) Impact Parameter Dependence of the Double Neutron/Proton Ratio of Nucleon Emissions in Isotopic Reaction Systems

148) Super-soft symmetry energy encountering non-Newtonian gravity in neutron stars

147) Constraining the gravitational binding energy of PSR J0737-3039B using terrestrial nuclear laboratory data

146) Circumstantial evidence for a soft nuclear symmetry energy at supra-saturation densities
145) Probing the high-density behavior of the nuclear symmetry energy with the $\pi^-/\pi^+$ ratio in heavy-ion collisions with the same neutron/proton ratio but different masses
Ming Zhang, Z.G. Xiao, Bao-An Li, L.W. Chen, G.C. Yong and S.J. Zhu
Physical Review C80, 034616 (2009).

144) Imprint of nuclear symmetry energy on gravitational waves from the axial $w$-mode of neutron stars, De-Hua Wen, Bao-An Li and Plamen G. Krastev
Physical Review C80, 025801 (2009).

143) Higher-order effects on the incompressibility of isospin asymmetric nuclear matter
L.W. Chen, B.J. Cai, C.M. Ko, Bao-An Li, C. Shen and J. Xu

142) Triton-$^3$He relative and differential flows as probes of the nuclear symmetry energy at supra-saturation densities
Gao-Chan Yong, Bao-An Li, Lie-Wen Chen, Xun-Chao Zhang,

141) Locating the inner edge of neutron star crust with terrestrial nuclear laboratory data
Jun Xu, Lie-Wen Chen, Bao-An Li and Hong-Ru Ma,

140) Nuclear constraints on properties of neutron star crusts
Jun Xu, Lie-Wen Chen, Bao-An Li and Hong-Ru Ma

139) Effects of matter-induced rho-omega mixing on vector meson masses, symmetry Energy and causality in isospin-asymmetric nuclear matter

138) Effects of isospin and momentum-dependent interactions on thermal properties of nuclear matter

137) Studies of the high density behavior of nuclear symmetry energy

136) Chiral condensate in nuclear matter with vacuum correction
Wei-Zhou Jiang and Bao-An Li,

135) Nuclear limits on gravitational waves from elliptically deformed pulsars
134) Nuclear constraints on the momenta of inertia of neutron stars
   Aaron Worley, Plamen G. Krastev and Bao-An Li,

133) Recent Progress and New Challenges in Isospin Physics with Heavy-Ion Reactions

132) Constraining properties of rapidly rotating neutron stars using data from heavy-ion collisions
   Plamen G. Krastev, Bao-An Li, Aaron Worley,

131) Symmetry energy effects on bremsstrahlung photons from heavy-ion reactions at intermediate energies

130) Constraining properties of neutron stars with terrestrial nuclear laboratory data
   Bao-An Li, L.W. Chen, C.M. Ko, P. Krastev and A.W. Steiner,

129) Effects of the isospin and momentum dependent interactions on thermal properties
   of asymmetric nuclear matter
   Jun Xu, Lie-Wen Chen, Bao-An Li and Hong-Ru Ma,

128) Neutron-skin thickness of finite nuclei in relativistic mean-field models with chiral limits

127) Equation of state of isospin-asymmetric nuclear matter in relativistic mean-field models
   with chiral limits

126) Mean free paths and in-medium scattering cross sections of energetic nucleons in
   neutron-rich nucleonic matter within the relativistic impulse approximation

125) Isospin-dependent properties of asymmetric nuclear matter in relativistic mean-field models

124) Differential isospin-fractionation in dilute asymmetric nuclear matter
   Bao-An Li, Lie-Wen Chen, Hong-Ru Ma, Jun Xu, Gao-Chan Yong,

123) Probing the Nuclear Symmetry Energy with Heavy-Ion Reactions Induced
   by Neutron-Rich Nuclei
Lie-Wen Chen, Che Ming Ko, Bao-An Li, Gao-Chan Yong, nucl-th/0704.2340

122) Probing the balance energy using momentum- and isospin-dependent potential
J.Y. Chen, W. Zuo, L. Ma and Bao-An Li,

121) The neutron/proton ratio of squeezed-out nucleons and the high density behavior
of the symmetry energy

120) Effects of isospin and momentum dependent interactions on liquid-gas phase
transition in hot asymmetric nuclear matter

119) Constraining a possible time variation of the gravitational constant G
with terrestrial nuclear laboratory data

118) Three-body force rearrangement contribution to single nucleon potential in nuclear matter
Wei Zuo, Pei-Yan Luo, Bao-An Li, Ji-Yan Chen and U. Lombardo,

117) Isospin flows

116) Temperature effects on the nuclear symmetry energy and symmetry free energy with an
isospin and momentum dependent interaction

115) Flipped symmetry potential in heavy-ion collisions
Gao-Chan Yong, Bao-An Li and Lie-Wen Chen,

114) Nuclear symmetry potential in the relativistic impulse approximation
Zeng-Hua Li, L.W. Chen, C.M. Ko, Bao-An Li and H.R. Ma,

113) Evolution of the symmetry energy of hot neutron-rich nuclear matter

112) Double neutron-proton differential transverse and elliptic flows as probes for the high
density behavior of the nuclear symmetry energy

111) Single and double π/π⁺ rations in heavy-ion reactions as probes of the high density
behavior of the nuclear symmetry energy
G.C. Yong, L.W. Chen, Bao-An Li and W. Zuo,

110) Single and double π/π⁺ rations in heavy-ion reactions as probes of the high density behavior of the nuclear symmetry energy

109) Constraining the radii of neutron stars with terrestrial nuclear laboratory data

108) Double neutron/proton ratio of nucleon emissions in isotopic reactions as a robust probe of the symmetry energy

107) Probing the isospin dependence of the in-medium nucleon-nucleon cross sections with radioactive beams,
Bao-An Li, Pawel Danielewicz and William G. Lynch,

106) Nuclear matter symmetry energy and the neutron skin thickness of heavy nuclei

105) Nucleon-nucleon cross sections in neutron-rich matter and isospin transport in heavy-ion reactions at intermediate energies

104) High energy behavior of nuclear symmetry potential in asymmetric matter

103) Isospin diffusion in heavy-ion collisions and the thickness of neutron-skin in ²⁰⁸Pb

102) Momentum and density dependence of isospin symmetry potential in asymmetric nuclear matter, W. Zuo, Ji-Yan Chen, Bao-An Li, P.Y Luo and U. Lombardo,

101) Multiphase transport model for relativistic heavy-ion collisions
Zi-Wei Lin, Che Ming Ko, Bao-An Li, Bin Zhang and Subrata Pal,

100) Determining the EOS of neutron-rich matter with radioactive beams at RIA
Bao-An Li, L.W. Chen, C.M. Ko, G.C. Gao and W. Zuo,

99) Isovector part of nucleon effective mass in neutron-rich matter within the BHF

98) Several observables sensitive to the symmetry energy in heavy-ion collisions induced by high energy radioactive beams

97) Isospin dependence of nucleon emission and radial flow in heavy-ion collisions induced by high energy radioactive beams

96) Probing stiffness of nuclear symmetry energy with isospin diffusion in heavy-ion collisions

95) Correlation between symmetry energy and collective flow in heavy-ion collisions induced by high energy radioactive beams

94) Near-threshold pion production with radioactive beams

93) Pion probe of the nuclear equation of state of neutron-rich matter
G.C. Yong, Bao-An Li and W. Zuo,

92) Effects of momentum-dependent symmetry potential on heavy-ion collisions induced by neutron-rich nuclei.

91) Constraining the neutron-proton effective mass splitting in neutron-rich matter

90) Momentum-dependence of nuclear potential and two-particle correlation functions

89) Equation of state of dense neutron-rich matter

88) Observable effects of symmetry energy in heavy-ion collisions at RIA

87) Momentum-dependence of symmetry potential and heavy-ion collisions induced by neutron-rich nuclei

86). Probing the high-density behavior of nuclear symmetry energy with high-energy


83). Effects of symmetry energy on two-nucleon correlation functions in heavy-ion collisions induced by neutron-rich nuclei,

82). Momentum dependence of symmetry potential in asymmetric nuclear matter for transport model calculations

81). Isospin effects on two-nucleon correlation functions in heavy-ion collisions at intermediate energies

80) Light cluster production in intermediate energy heavy-ion collisions induced by neutron-rich nuclei

79). Nuclear modification of heavy quark fragmentation and J/psi production in ultra-relativistic heavy-ion collisions

78). High density behaviour of nuclear symmetry energy and high energy heavy-ion collisions


75). J/psi supression in ultra-relativistic heavy-ion collisions within a multi-phase transport model

74). Differential transverse flow in central C-Ne and C-Cu collisions at 3.7 GeV/nucleon.


17
72). Multiphase transport model for heavy ion collisions at RHIC

71). Uranium-on-uranium collisions at relativistic energies
   Bao-An Li and M.A. Tilley,

70). Thermodynamical properties of neutron-rich matter
   M.A. Tilley and Bao-An Li

69) A multiphase transport study of nuclear collisions
   B. Zhang, C.M. Ko, Bao-An Li, Z.W. Lin and S. Pal,

68) Isospin dependence of mechanical and chemical instabilities

67). Studies of superdense hadronic matter in a relativistic transport model
   Bao-An Li, C.M. Ko, A.T. Sustich and B. Zhang,

66). Isotopic Distributions and the isospin dependent equation of state
   W.P. Tan, Bao-An Li, R. Donangelo, C.K. Gelbke, T.X. Liu, X.D. Liu,
   W.G. Lynch, S. Souza, M.B. Tsang, M-J. Van Goethem, G. Verde, A. Wagner,

65). Proton elliptic differential flow and the isospin dependence of the nuclear equation of state

64). Charged particle rapidity distribution at RHIC

63). Probing the isospin-dependence of the nuclear equation of state

62). Neutron-proton differential flow as a probe of isospin-dependence of nuclear equation of state

61). J/psi suppression in ultrarelativistic nuclear collisions

60). Collective flow of charge-neutral strange particles at AGS
59). Multi-phase transport model for RHIC

58). Uranium on uranium collisions at relativistic energies

57). Light particle probes of expansion and temperature evolution:
   Coalescence model analysis of heavy-ion collisions at 47A MeV
   K. Hagel, R. Wada, J. Cibor, M. Lunardon, N. Marie, R. Alfaro, W. Shen, B. Xiao, Y. Zhao,
   Z. Majka, J. Li, P. Staszel, Bao-An Li, M. Murray, T. Keutgen, A. Bonasera and J.B. Natowitz

56). Dynamic evolution and the Caloric Curve for Medium Mass Nuclei
   J. Cibor, R. Wada, K. Hagel, M. Lunardon, N. Marie, R. Alfaro, W. Shen, B. Xiao,
   Y. Zhao, J. Li, Bao-An Li, M. Murray, J.B. Natowitz, Z. Majka and P. Staszel,

55). Differential flow in heavy-ion collisions at balance energies

54). Excitation function of nucleon and pion elliptic flow in relativistic heavy-ion collisions

53). Elliptic flow in nuclear reactions at balance energies

52). Kaon differential flow in relativistic heavy-ion collisions

51). Isospin dependence of nuclear collective flow

50). Antikaon production and medium effects in relativistic heavy-ion collisions

49) Probing the softest point in nuclear equation of state

48) Isospin physics in heavy-ion collisions at intermediate energies
   Bao-An Li, C.M. Ko and W. Bauer

47) Isospin relaxation time in heavy-ion collisions at intermediate energies

46) Excitation functions of nuclear stopping power and flow in relativistic heavy-ion collisions

45) Chemical and mechanical instability in hot, isospin-asymmetric nuclear matter

44) Isotopically resolved fragment production in the reaction $^{40}\text{Ca}+^{58}\text{Fe}$
at $E_{\text{beam}}/A=33$ and 45 MeV.
H. Johnston, T. White, Bao-An Li, D. Rowland, B. Hurst, D. O'Kelly, F. Gimeno-Nogues,

43) Equation of state of asymmetric nuclear matter and collisions of neutron-rich nuclei

42) Isospin dependence of the balance energy
R. Pak, Bao-An Li, W. Benenson, J.A. Brown, O. Bjarki, S.A. Hannuschke,
Vander Molen, G.D. Westfall, B. Yang and S.J. Yennello,

41) Isospin dependence of collective transverse flow in nuclear collisions
R. Pak, W. Benenson, J.A. Brown, O. Bjarki, S.A. Hannuschke, R.A. Lacey,
Bao-An Li, A. Nadasen, E. Norbeck, D.E. Russ, M. Steiner, N.T. B. Stone, A.M.
Vander Molen, G.D. Westfall, B. Yang and S.J. Yennello,

40) Isospin dependence of transverse flow in heavy-ion collisions at intermediate energies

39) Kaon dispersion relation and flow in relativistic heavy-ion collisions.

38) Pion flow and antiflow in relativistic heavy-ion collisions

37) Transverse momentum dependence of collective flow in relativistic heavy-ion collisions

36) Excitation functions in central Au+Au collisions from SIS/GSI to AGS/Brookhaven

35) Pion transparency in 500 MeV C(π, π') scatterings?

34) Revisit of Coulomb effect on $\pi^+/\pi^-$ ratio in heavy ion collisions

20
33) Kaon flow as a probe of the kaon potential in nuclear medium

32) Superdense hadronic matter formation in high energy heavy-ion collisions

31) Multifragmentation induced by relativistic $\alpha$ projectiles studied with the $4\pi$ setup FASA

30) Isospin non-equilibrium in heavy-ion collisions at intermediate energies

29) Nuclear shadowing effects in relativistic heavy-ion collisions

28) Near-threshold $K^+\{+\}$ production in heavy-ion collisions

27) Effects of N*(1440) resonance on particle production in heavy ion collisions at sub-threshold energies

26) Freeze-out configuration in multi-fragmentation

25) Detailed balance for the production and the re-absorption of baryon resonances
and heavy-ion collisions

24) Linear momentum transfer in heavy-ion collisions around the Fermi energy

23) "Squeeze-out" of pions in symmetric heavy-ion collisions

22) In-medium cross section and disappearance of flow

21) Measuring dynamical fluctuations in relativistic heavy-ion collisions

20) Pion multiplicity distribution and combinants in relativistic heavy-ion collisions

19) Energy dependence of intermittency in intermediate energy nuclear reactions
18) Nuclear stopping power and recoiling nucleons

17) Mass dependence of pion production in heavy-ion collisions near, but below threshold
   J. Miller, G.F. Krebs, J. Panetta, L.S. Schroeder, P.N. Kirk, Z.F. Wang, W. Bauer,
   W. Benenson, D. Cebra, M. Cronqvist, **Bao-An Li**, R. Pfaff, B. Yong, T. Murakami,

16) Dynamical instability and multifragmentation in BUU model for heavy-ion collisions

15) Statistical model analysis of ALADIN multifragmentation data

14) Unusual behaviour of heavy collision residues?

13) Dynamical fluctuations in pion pseudorapidity distributions at Bevalac energies

12) Fragmentation, Dissipative Expansion and Freeze-out in Medium
   Energy Heavy-ion Collisions

11) Two-temperature shape of pion spectra in relativistic heavy-ion collisions

10) Pion spectra in a hadronic transport model for relativistic heavy-ion collisions

9) Preferential emission of pions in asymmetric nucleus-nucleus collisions

8) Pion Production with radioactive nuclei

7) Relativistic transport theory for hadronic matter
   Shun-Jin Wang, **Bao-An Li**, Wolfgang Bauer and Jörgen Randrup,

6) Pion collectivity in relativistic heavy-ion collisions
   George F. Bertsch, Gerald E. Brown, Volker Koch and **Bao-An Li**, 

5) Bubbles and drops in superheated and supercooled nuclear matter

4) Proton and neutron subshells and the interplay between them II, rare earth region
Jing-Ye Zhang, Ji-Quan Zhong, Bao-An Li and Mong-Zhong Zhang

3) Proton and neutron subshells and the interplay between them I, A=80-100 region
Jing-Ye Zhang, Ji-Quan Zhong and Bao-An Li
Physica Energiae Fortis et Physica Nuclearis V9, No.6, (1985) 736

2) On the property of the yrast band in $^{152}$Dy
Jing-Ye Zhang, Ji-Quan Zhong and Bao-An Li

1) Shape coexistence in Kr isotopes.

(III) Publications in conference proceedings and invited book chapters


66) THE NUCLEAR SYMMETRY ENERGY, THE INNER CRUST, AND GLOBAL NEUTRON STAR MODELING

65) Imprints of Nuclear Symmetry Energy on Properties of Neutron Stars
Bao-An Li, Lie-Wen Chen, Michael Gearheart, Joshua Hooker, Che Ming Ko, Plamen G. Krastev, Wei-Kang Lin, William G. Newton, De-Hua Wen, Chang Xu, Jun Xu,
Invited talk given in the Nuclear Astrophysics session of INPC (International Nuclear Physics Conference), July 4-9, 2010, Vancouver, Canada; arXiv:1103.4652;
Journal of Physics: Conference Series 312 (2011) 042006

64) Constraining the symmetry energy from the neutron skin thickness of Tin isotopes
Lie-Wen Chen, Che Ming Ko, Jun Xu, Bao-An Li, Nuclear Structure in China 2010 - Proceedings of the 13th National Conference on Nuclear Structure in China,
arXiv:1103.4718

63) Probing the Equation of State of Neutron-Rich Matter

63) Nuclear constraints on the inner edge of neutron star crusts


61) Nuclear limits on properties of pulsars and gravitational waves
Plamen G. Krastev and Bao-An Li

60) Nuclear constraints on the core-crust transition density and pressure of neutron stars


59) Imprints of the nuclear symmetry energy on gravitational waves from deformed pulsars, Bao-An Li and P.G. Krastev,

58) Pion probe of the high density behavior of nuclear symmetry energy
Z.G. Xiao, Bao-An Li, L.W. Chen, G.C. Yong, M. Zhang and S.J. Zhu

57) Triton-he3 relative and differential flow as a probe of the symmetry energy
Gao-Chan Yong, Bao-An Li and L.W. Chen,

56) TRANSITION DENSITY AND PRESSURE AT THE INNER EDGE OF NEUTRON STAR CRUSTS
Jun Xu, L.W. Chen, C.M. Ko, Bao-An Li and H.R. Ma,

55) Higher-order effects on nuclear incompressibility in isospin asymmetric matter
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Bao-An Li, Proceedings of the 9th High Energy Heavy-ion Study Oct. 25-29, 1993
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W. Bauer, P. Danielewicz, D. Klakow, Bao-An Li and P. Schuck
Meson interferometry in relativistic heavy ion collisions Brookhaven National Laboratory,

3). Relativistic transport theory and pion production in heavy-ion collisions
Wolfgang Bauer and Bao-An Li
Proceedings of the 2nd International Workshop on Relativistic Aspects of Nuclear Physics,

2). Quantum correlation dynamics and relativistic transport equations for hadronic matter
Shun-Jin Wang, Bao-An Li, Wolfgang Bauer and Jörgen Randrup,
Proceedings of the international symposium on heavy-ion physics and application,

1). Two-temperature pion spectra.
Wolfgang Bauer, Bao-An Li, Shun-Jin Wang and Jörgen Randrup
Proceedings of the Seventh Winter Workshop on Nucl. Dynamics,
List of talks presented by Bao-An Li

224) **Invited talk and session chair**, Nuclear Symmetry Energy and its Astrophysical Impacts  
3rd International Workshop on Nuclear Dynamics in Heavy-Ion Reactions, Dec. 16-19, 2012, Shenzhen, China

223) **Colloquium**, Impacts of high-density symmetry energy on properties of neutron stars and gravitational waves  
Institute of Modern Physics, Chinese Academy of Science, Dec. 11, 2012

222) **Colloquium**, Probing the Equation of State of Neutron-Rich Nuclear Matter with Terrestrial Nuclear Experiments  
Nankai University, TianJin, China, Aug. 20, 2013

221) **Colloquium**, Probing the Equation of State of Neutron-Rich Nuclear Matter with Terrestrial Nuclear Experiments  
Southeast University, Nanjing, China, Aug. 14, 2013

220) **Colloquium**, Probing the Equation of State of Neutron-Rich Nuclear Matter with Terrestrial Nuclear Experiments  
Shanghai Jiao Tong University, China, Aug. 13, 2013


218) **Colloquium**, From Earth to Heaven: Constraining Properties of Neutron Stars with Terrestrial Nuclear Reactions, Baylor University, Waco, Texas, Jan. 11, 2012

217) **Colloquium**, what can you do with a degree in nuclear physics, Lanzhou University, Lanzhou, China, Dec. 27, 2011

216) **Colloquium**, Recent progress and new challenges in constraining the density dependence of nuclear symmetry energy, Institute of Modern Physics, Chinese Academy of Science, Dec. 27, 2011

215) **Colloquium**, what can you do with a degree in nuclear physics, Xian Jiao Tong University, Xian, China, Dec. 22, 2011

214) **Colloquium**, Recent progress and new challenges in constraining nuclear symmetry energy, Guangxi Normal University, Guilin, China, Dec. 20, 2011

213) **Colloquium**, what can you do with a degree in nuclear physics, Guangxi Normal University, Guilin, China, Dec. 19, 2011
212) **Invited Talk**, Recent progress and new challenges in constraining nuclear symmetry energy, Topical Workshop on Symmetry Energy and Neutron Stars, Guangzhou, China, Dec. 16-18, 2011

211) **Colloquium**, From earth to heaven: constraining properties of neutron stars with terrestrial nuclear reactions, South China University of Technology, China, Dec. 15, 2011


209) **Colloquium**, Transport theory for nuclear reactions, Department of Math, Texas A&M University-Commerce, Oct. 19, 2011

208) **Colloquium**, A few new issues regarding the density dependence of nuclear symmetry energy, Cyclotron Institute, Texas A&M University, Aug. 23, 2011

207) **Invited talk**, Probing the Equation of State of Neutron-Rich Matter with Rare Isotopes, ANL/INT/JINA/MSU annual FRIB (Facility for Rare Isotope Beams) workshop, Seattle, WA, Aug. 8-15, 2011


205) **Discussion leader and coordinator**, 2011 Gordon Research Conference in Nuclear Chemistry, Colby Sawyer College, NH, June 12-17, 2011

204) **Invited talk**, Determining nuclear symmetry energy with nuclear reactions, Francis P. Garvin-John M. Olin Symposium in Honor of Sherry Yennello, the 241st National Meeting of the ACS, Anaheim California from March 27-31, 2011

203) **Colloquium**, Constraining the EOS of neutron-rich matter with heavy-ion reactions, Department of Physics and Astronomy, Texas A&M University-Commerce, Jan. 20, 2011

202) **Colloquium**, Constraining the EOS of neutron-rich matter with heavy-ion reactions, University of Notre Dame, Jan. 19, 2011

201) **Seminar**, Probing the Equation of State of Dense Neutron-Rich Matter, Qinghua University, Beijing, China, Dec. 23, 2010

200) **Seminar**, Probing the Equation of State of Dense Neutron-Rich Matter, Peking University, Beijing, China, Dec. 22, 2010

199) **Session chair and invited speaker**, Topical Workshop on Nuclear Symmetry Energy and Astrophysics, Xian, China, Dec. 17-19, 2010
198) **Invited talk**, Probing the Equation of State of Neutron-Rich Matter and its Astrophysical Impacts with Terrestrial Laboratory Experiments, Pan-American Advanced Studies Institute on Rare Isotopes, Joao Pessoa, Brazil, August 1-13, 2010


196) **Seminar**, Nuclear Astrophysics, Lanzhou University, Lanzhou, China, July 22, 2010

195) **Colloquium**, From Earth to Heaven: Probing Properties of Neutron Stars with Terrestrial Laboratory Data, Institute of Modern Physics, Lanzhou, China, July 21, 2010

194) **Seminar**, Nuclear Astrophysics, Xian Jiao Tong University, China, July 20, 2010

193) **Colloquium**, From Earth to Heaven: Probing Properties of Neutron Stars with Terrestrial Laboratory Data, Xian Jiao Tong University, Xian, China, July 19, 2010

192) **Colloquium**, From Earth to Heaven: Probing Properties of Neutron Stars with Terrestrial Laboratory Data, Beijing Normal University, Beijing, China, July 13, 2010


190) **Colloquium**, From Earth to Heaven: Probing Properties of Neutron Stars with Terrestrial Laboratory Data, LeTourneau University, Longview, Texas, USA, April 22, 2010.

189) **Colloquium**, From Earth to Heaven: Probing Properties of Neutron Stars with Terrestrial Laboratory Data, New Mexico State University, Las Cruces, New Mexico, USA, Feb. 18, 2010


187) **Nuclear Physics Seminar**, The Equation of State of Neutron-Rich Nuclear Matter, The Ohio State University, Columbus, OH, Nov. 19, 2009

186) **Session Chair and Invited Talk**, Why is the symmetry energy so uncertain at supra-saturation densities, The European Science Foundation Exploration Work on High Density Symmetry Energy, Zagreb, Croatia, Oct. 14-19, 2009

185) **Invited 5-hour lectures on isospin physics** at the World Class University Program, Hanyang University, Seoul, Korea, Oct. 3-11, 2009
184) **Colloquium**, The equation of state of neutron-rich nuclear matter and its impacts on astrophysics and cosmology, Texas A&M University-Commerce, Sept. 3, 2009

183) **Session Chair and Invited Talk**, Imprints of nuclear symmetry energy on gravitational waves
International Workshop on Nuclear Reaction Dynamics and the Symmetry Energy, Shanghai, China, Aug. 22-25, 2009

182) **Session chair and Plenary Invited talk**, 10th International Conference on Nucleus-Nucleus Collisions, Beijing, China, Aug. 16-21, 2009.

181) **Invited Talk**, International Workshop on the EOS of Neutron-Rich Matter, European Center of Theoretical Physics, Trento, Italy, Aug. 3-7, 2009

180) **Co-organizer and invited speaker**, Super-heavy nuclei in relativistic mean field models, Kavli Institute of Theoretical Physics, Beijing, China, June 6-20, 2009


178) **Seminar**, Probing the EOS of neutron-rich matter with heavy-ion reactions
Cyclotron Institute, Texas A&M University, College Station, Dec. 5, 2008

177) **Invited talk**, Probing the EOS of neutron-rich matter with heavy-ion reactions

176) **Invited lecture**, Probing properties of neutron stars with terrestrial nuclear reactions
NSF/Step program and Science Club, Eastfield College, Mesquite, Texas, Sept. 24, 2008

175) **Seminar**, Experimental constraints on the symmetry energy and their impacts on astrophysics, National Superconducting Cyclotron Laboratory, Sept. 10, 2008

174) **Invited Talk**, Constraining the nuclear symmetry energy and its astrophysical impacts, International Workshop on the HIRFL-CSR Physics, July 4-8, 2008, Lanzhou, China

171-173) **Seminars**, Constraining the nuclear symmetry energy and its astrophysical impacts
1) June 30, 2008, Shanghai JiaoTung University
2) July 1, 2008, Shanghai Institute of Applied Physics, Chinese Academy of Science
3) July 18, 2008 Tsinghua University, Beijing
170) **Invited Talk**, Constraining the symmetry energy and its impact on astrophysics with heavy-ion reactions,  
Gordon Research Conference in Nuclear Chemistry,  
June 15-20, 2008, New London, NH, USA

169) **Seminar for Texas region 8 high school science teachers**  
A frontier in nuclear astrophysics, June 10, 2008, Commerce, Texas

168) **Invited Talk**, Constraining the EOS of Neutron-Rich Nuclear Matter with Heavy-Ion Reactions  
International Workshop on Asymmetric Equation of State of Nuclear Matter,  
May 28-30, 2008, Catania, Italy

167) **Invited talk**, Symmetry Energy and Astrophysics  
24th International Workshop on Nuclear Dynamics, April 5-12, 2008, South Padre Island, TX, USA

166) **Contributed talk**, Differential Isospin Fractionation in Neutron-Rich Matter  
Annual Meeting of the Division of Nuclear Physics, American Physical Society,  

165) **Invited talk**, Impacts of Symmetry Energy on Astrophysics  
Symposium on Nuclear Structure and Reactions in the Era of Radioactive Beams,  

160-164) **Seminars**  
1) Recent Progress in Isospin Physics, June 18, 2007, Beijing Normal University  
2) Equation of State of Dense Neutron-Rich Matter, June 20, 2007,  
   Institute of Modern Physics, Chinese Academy of Sciences, Lanzhou  
3) Equation of State of Dense Neutron-Rich Matter, June 21, 2007,  
   Lanzhou University  
4) Constraining properties of neutron stars with heavy-ion reactions, June 22, 2007  
   Northwest Normal University  
5) Constraining properties of neutron stars with heavy-ion reactions, June 26, 2007  
   Shanghai Jiao-Tung University

159) **Selected contribution for oral presentation**, Isospin dependence of the nuclear Equation of State  

158) **Selected contribution for oral presentation**, Constraining properties of neutron stars with heavy-ion reactions,  
International Workshop on “Nuclear Physics in Astrophysics III”,  
Dresden, Germany, March 25-31, 2007

157) **Seminar**, Nuclear Astrophysics
Science Club, Eastfield College, Dallas, Texas, March 7, 2007

156) **Invited talk**, physics challenges in studies of dense matter

155) **Invited talk**, Probing the EOS of neutron-rich matter with heavy-ion reactions
    In Heaven and On Earth 2006: The Nuclear Equation of State in Astrophysics
    July 5-7, 2006, Montreal, Canada

154) **Ganil-LPC joint colloquium**, experimental probes of the symmetry energy
    Caen, France, June 27, 2006.

152-153) **Colloquia**, constraining properties of neutron stars with terrestrial nuclear reactions
    (1) Institute of Nuclear Physics, Orsay, France, June 19, 2006
    (2) Ganil-LPC joint colloquium, Caen, France, June 23, 2006

151) **Invited talk**, Isospin dynamics in heavy-ion reactions
    2006 Gordon research conference in nuclear chemistry
    June 4-9, 2006, Colby-Sawyer College, NH, USA

150) **Invited Talk**, Constraining properties of neutron stars with terrestrial nuclear reactions
    6th China-Japan Joint Nuclear Physics Symposium, Shanghai, May 15-20, 2006

149) **Seminar**, Recent Progress in Isospin Physics
    Institute of Modern Physics, Chinese Academy of Science, May 11, 2006.

146-148) **Seminars**, constraining the radii of neutron stars with nuclear reactions in terrestrial labs
    (1) China Institute of Atomic Energy, Beijing, May 8, 2006
    (2) Northwest Normal University, Lanzhou, May 10, 2006
    (3) Lanzhou University, May 12, 2006

145) **Contributed talk**, Temperature and density dependence of the symmetry energy of hot neutron-rich matter and the isoscaling phenomenon in nuclear reactions
    Mini-symposium on nuclear matter at abnormal densities, APS meeting, April 22-25, 2006, Dallas, TX.

144) **Contributed talk**, neutron stars and the nuclear equation of state
    14th annual Arkansas Space Grant Symposium, Arkansas Tech University, USA

143) **Colloquium**, From Earth to Heaven: constraining the radii of neutron stars using terrestrial nuclear reactions
    April 11, 2006, Texas A&M University-Commerce, Texas, USA

142) **6 invited lectures** at the 2006 India National School of Nuclear Physics
March 21-25, 2006, Kolkata, India

141) Colloquium, EOS of Neutron-Rich Matter and Heavy-Ion Reactions  
March 20, 2006, Tata Institute for Fundamental Research, Bumbai, India

140) Colloquium, In heaven and on earth: constraining the radii of neutron stars with terrestrial nuclear laboratory data, March 2, 2006, University of Idaho, USA

139) Probing the Equation of State of neutron stars with nuclear reactions induced by radioactive beams in terrestrial labs  
Colloquium, Jan. 25, 2006, University of Texas at Arlington, Texas, USA

138) Probing the Equation of State of neutron-rich matter with heavy-ion reactions  
Invited talk, The XXIX Symposium on Nuclear Physics, Cocoyoc, Morelos, Mexico, Jan. 3-6, 2006

137) Constraining the radii of neutron stars with terrestrial nuclear laboratory data  
Nuclear theory Seminar, Dec. 16, 2005, Texas A&M University, College Station, USA

136) Simulation as the third branch of science  
One of the 2 panelists at the panel discussion on transport models for nuclear reactions  
International Workshop on Multifragmentation  
Nov. 28-Dec. 2, 2005, Catania, Italy

135) Isospin dynamics in heavy-ion reaction  
Invited talk, International Workshop on Multifragmentation  
Nov. 28-Dec. 2, 2005, Catania, Italy

134) Probing the Equation of State of Neutron Stars in Terrestrial Laboratories  
Colloquium, Nov. 4, 2005, NASA-NSSTC (National Space Science and Technology Center)  
Huntsville, Alabama, USA

133) Progress and future directions of nuclear reactions  
Invited review talk, Users workshop of the National Superconducting Cyclotron Laboratory, Aug. 18-21, 2005, Michigan State University, USA

132) Incompressibility of neutron-Rich matter  
Invited talk, International Workshop on Nuclear Incompressibility and Equation of State  
Joint Institute of Nuclear Astrophysics, University of Notre Dame, July 13-16, 2005.

131) EOS of neutron-rich matter and heavy-ion collisions  
Seminar, July 8, Shanghai Institute of Applied Physics, Shanghai, China

130) EOS of neutron-rich matter and heavy-ion collisions  
79th lecture of physics frontiers, Shanghai JiaoTung University, July 7, 2005, China
129) Transport theory for nuclear reactions
    Seminar, Institute of Modern Physics, Chinese Academy of Science, Lanzhou, China, July 5, 2005.

128) Progress in isospin physics

127) Nuclear astrophysics and heavy-ion reactions
    Seminar, June 28, 2005, Xian Jiao Tung University, Xian, China

126) Equation of State of neutron-rich matter

125) Determining the symmetry energy at high densities with high energy heavy-ion collisions

124) Determining the symmetry energy at high densities with high energy heavy-ion collisions

123) Probing the equation of state of neutron-rich matter with radioactive beams
    Selected contribution for oral presentation: Nuclear Physics in Astrophysics II, May 16-20, 2005, Debrecen, Hungary

122) Next Steps in determining the symmetry energy
    Organizer and discussion leader, Workshop on Nuclear Equation of State for Nuclei, Neutron Stars and Supernovae, Arkansas State University, April 14, USA

121) Transport theory for nuclear reactions with radioactive beams
    Invited talk, 2nd Argonne/MSU/INT/JINA Joint RIA Workshop, March 9-12, 2005, East Lansing, Michigan, USA

120) Probing the equation of state of neutron-rich matter
    Seminar, Lawrence Livermore National Laboratory, Feb. 21, 2005, Livermore, California, USA

119) Overview of isospin physics
    Session chair and invited review talk, World consensus initiatives in intermediate energy heavy-ion physics, Feb. 12-16, 2005, College Station, Texas, USA

118) Probing the equation of state of neutron-rich matter at RIA (Rare Isotope Accelerator)
    Session chair and invited speaker, Winter Workshop on Nuclear Dynamics, Feb. 5-12, 2005,
Beaver Run Resort, Breckenridge, Colorado, USA

117) Probing the isospin, density and momentum dependence of nuclear effective interactions with central reactions at RIA


116) **Contributed talk**, Determination of the symmetry energy from heavy-ion collisions


115) **Invited talk**, Nuclear Equation of State for Astrophysics Models


114) **Co-Chair of the Conference and Panelist in the panel “What are the best strategies to learn about the symmetry energy? What have we learned already”,** 2004 Gordon Conference in Nuclear Chemistry, June 13-18, 2004, Colby-Sawyer College, New London, NH, USA

113) **Seminar**, Isospin Physics: A New Frontier in Nuclear Sciences

Peking University, May 17, 2004, Beijing, China.

111-112) **Seminar**, New Physics Opportunities with Radioactive Beams


2) Institute of Theoretical Physics, Lanzhou University, Lanzhou, May 14, 2004

110) **Invited talk**, Prospects and Challenges of Isospin Physics

International Workshop on Nuclear Physics, May 8-12, Shanghai, China

107-109) **Session chair and invited speaker,**

(1) An overview of open questions in isospin physics

(2) Non-equilibrium in heavy-ion collisions at intermediate energies

(3) isovector part of nucleon effective mass in neutron-rich matter

International Conference on Dynamics and Thermodynamics with Nucleonic Degrees of Freedom, Jan. 19-24, 2004, Catania, Italy

106) New physics opportunities at the Rare Isotope Accelerator

**Seminar**, Argonne National Laboratory, Chicago, Dec. 18, 2003, USA

105) Central Collisions at the Rare Isotope Accelerator

**Invited talk**, RIA Theory Workshop, Nov. 1-3, 2003, Westward Look Resort, Arizona, USA

104-102) Probing the equation of state of dense neutron-rich matter with high energy radioactive beams

(1) **Contributed talk**, American Physical Society meeting, Oct. 30-Nov. 1, 2003, Tucson, Arizona, USA
(2) **Session chair and invited speaker**, International Workshop on Topics in Heavy-Ion Collisions 03, June 24-29, 2003, Montreal, Canada

(3) **Invited talk**, VIII International Conference on Nucleus-Nucleus Collisions, June 15-22, Moscow, Russia

101) Equation of State of Dense Asymmetric Nuclear Matter  
**Contributed talk**, 87th Arkansas Academy of Science Annual Meeting, April 4-5, 2003, Fayetteville, Arkansas, USA

109-100) Probing the high density behavior of nuclear symmetry energy with high-energy radioactive beams  
(1) **Seminar**, Dec. 23, 2002, Tsinghua University, Beijing, China.  
(2) **Seminar**, Dec. 16, 2002, Institute of Modern Physics, Chinese Academy of Science.  
(3) **Seminar**, Dec. 13, 2002, Nanjing University, Nanjing, China.  
(4) **Seminar**, Dec. 12, 2002, China East Normal University, Shanghai, China.  
(5) **Seminar**, Dec. 11, 2002, Shanghai Institute of Nuclear Research, Chinese Academy of Science.  
(7) **Contributed Talk**, 2002 Fall Meeting of the Division of Nuclear physics of APS, Oct. 9-12, East Lansing, Michigan, USA.  
(8) **Invited Review Talk**, International Workshop on Reaction Theory with Radioactive Beams, Sept. 16-20, Seattle, Washington, USA  
(9) **Invited Talk**, Symposium on Nuclei and Nuclear Matter at the Limits of Stability, Aug. 18-22, 2002, 224th ACS National Meeting, Boston, USA  
(10) **Contributed Talk**, 86th Annual Meeting of the Arkansas Academy of Science, University of Arkansas at Little Rock, April 5-6, 2002, Arkansas, USA.

99) Isospin-dependence of nuclear equation of state and Heavy-ion collisions at intermediate energies  
**Seminar**, Dec. 19, 2002, Center for Nuclear Theory, National Laboratory of Heavy-Ion accelerators, Lanzhou, China.

98) Isospin effects as probes of the equation of state of neutron-rich matter  

97-94) Probing the EOS of neutron-rich matter  
(1) **Colloquium**, June 11, 2002, Texas A&M University, Texas, USA.  
(2) **Seminar**, May 16, 2002, McGill University, Montreal, Canada.  
(3) **Seminar**, May 7, 2002, University of Rochester, Rochester, New York, USA.  

93) Chemical and mechanical instabilities in neutron-rich matter  
**Contributed Talk**, 86th Annual meeting of the Arkansas Academy of Science, University of Arkansas at Little Rock, April 5-6, 2002, Arkansas, USA.

92) Probing symmetry energy at high densities
**Invited Talk**, International Workshop on Heavy-Ion Reactions and Matter under Extreme Conditions, Nov. 14-18, 2001, National Superconducting Laboratory, East Lansing, Michigan, USA

91). Chemical and Mechanical Instability in Neutron-Rich Matter  
**Seminar**, July 19, 2001, Institute of Modern Physics, Chinese Academy of Science, Lanzhou, China

90). Formation of superdense matter in relativistic heavy-ion collisions  
**Seminar**, July 20, 2001, Center for Theoretical Nuclear Physics, Chinese Academy of Sciences.

89). New physics opportunities with radioactive beams  
**Seminar**, July 23, 2001, National Laboratory of heavy-Ion Accelerators, Lanzhou, China

88-84). Uranium-on-uranium collisions at relativistic energies  
1) **Seminar**, Oct. 6, 2000, Cyclotron Institute, Texas A&M University, USA  
2) **Invited Talk**, GSI Workshop on its Future Facility, Oct. 18-21, 2000, Darmstadt, Germany  
4) **Contributed Talk**, 85th Annual Meeting of the Arkansas Academy of Science, April 13-14, 2000, Conway, Arkansas, USA.  
5) **Contributed Talk**, Division of Nuclear Physics of American Physical Society Fall Meeting, Oct. 20-23, 1999, Asilomar, California, USA.

83). Isospin effects in nuclear multifragmentation  
**Invited Talk**, Symposium on Critical Issues/Questions in Nuclear Dynamics, 221 National Meeting of the American Chemical Society, April 1-5, 2001, San Diego, USA

82). Future directions of nuclear chemistry and physics  
**Panelist**, Symposium on Critical Issues/Questions in Nuclear Dynamics, 221 National Meeting of the American Chemical Society, April 1-5, 2001, San Diego, USA

81-78). Isospin-dependence of the nuclear equation of state  
2) **Seminar**, Nov. 30, 2000, University of Minnesota, Minneapolis, USA.  
3) **Invited Talk**, Nuclear Physics Long Range Plan Town Meeting, Nov. 9-12, 2000, Oakland, California, USA  
4) **Seminar**, April 19, 2000, Michigan State University, East Lansing, Michigan, USA

77) Frontiers in astronomy  
**Video taped interview**, March 27, 2000, the Astronomy Club of Marmaduke High School, Arkansas, USA.

76). Quark-Gluon Plasma and the early universe  
**Invited Talk**, Jonesboro High School, Nov., 1, 2000, Jonesboro, Arkansas, USA.
75). New physics opportunities with the rare isotope accelerator
   **Invited Talk**, RIA (Rare Isotope Accelerator) 2000 Workshop
   July 24-26, 2000, Research Triangle Park, North Carolina, USA

74). Excitation function of elliptic flow in relativistic heavy-ion collisions
   **Selected contribution**, Seventh International Conference on Nucleus-Nucleus Collisions,
   July 3-7, 2000, Strasbourg, France

73). Towards the Frontiers of Nuclear Sciences
   **Panelist**, 2000 Gordon Research Conference on Nuclear Chemistry, June 18-23,
   2000, New London, New Hampshire, USA

72) J/psi supression in ultra-relativistic heavy-ion collisions
   **Invited Talk**, International Conference on Open Standard Codes and Routines (OSCAR) for
   Relativistic Heavy-Ion Collisions, June 6-15, 2000, Nantes, France.

71). Chemical instability in neutron-rich matter
   **Invited Talk**, Third International Conferences on Phase Transitions in Strong Interactions,
   May 22-26, 2000, Acicastello, Italy

70). Isospin physics in heavy-ion collisions
   **Colloquium**, May 17, 2000, Texas A&M University, College Station, Texas, USA

69). Probing the isospin-dependence of the nuclear EOS using radioactive beams
   **Invited Talk**, International Workshop on New physics Opportunities at HIRFL-CSR,
   Aug. 11-13, 1999, Beijing, China.

68). Frontiers of Nuclear Physics
   **A Series of 5 Invited Lectures**, China Center of Advance Science and Technology,
   Aug. 9-11, 1999, Beijing, China.

67). ART: A relativistic transport model for RHIC
   **Invited Talk**, International Workshop on Predictions for RHIC
   July 8-16, 1999, Brookhaven National Laboratory, New York, USA

66). A Multi-phase transport model for RHIC

65). Excitation function of collective flow in relativistic heavy-ion collisions
   **Contributed Talk**, Relativistic Heavy Ion Mini-symposium C: Flow,
   American Physical Society Meeting, March 20-26, 1999, Atlanta, USA.

64). Science of colliding two gold nuclei at relativistic energies
   **Sigama Xi Seminar**, Feb. 18, 1999, Arkansas State University, Jonesboro, Arkansas, USA

63). Isospin physics in heavy-ion collisions

62). Teaching science with multimedia technologies
   Colloquium, April 20, 1998, Fayetteville State University, North Carolina, USA

61). Isospin-dependent nuclear EOS and collisions of neutron-rich nuclei
   Invited talk, International Workshop on isospin dynamics, Oct. 16-19, 1997, Catania, Italy

60). Nuclear reactions with radioactive beams
   Seminar, Sept. 25, 1997, Shanghai Institute of Nuclear Research, P.R. China

50). Isospin Physics in Nuclear reactions
   Seminar, Sept. 22, 1997, China Institute of Atomic Energy, Beijing, P.R. China

49). A Relativistic Transport Model for Heavy-ion Collisions
   Seminar, Sept. 22, 1997, China Institute of Atomic Energy, Beijing, P.R. China

48). Relativistic Heavy-Ion Collisions
   A series of 5 invited lectures,
   Sept. 15-19, 1997, Institute of Modern Physics, Chinese Academy of Science

47). Isospin physics in heavy-ion collisions at intermediate energies
   Invited talk, International Workshop on radioactive ion beam physics
   Sept. 8-12, 1997, Lanzhou, P.R. China.

46). Introduction to OSCAR: Open Standard Codes and Routines
   Seminar, July 3, 1997, Cyclotron Institute, Texas A&M University, USA.

45). Final state of relativistic heavy-ion collisions
   Invited talk, Workshop on open standards of parton cascade models
   June 22-28, 1997, Brookhaven National Laboratory, New York, USA.

44). Excitation functions of stopping power and flow in relativistic heavy-ion collisions
   Selected contribution, at 6th International Conference on Nucleus-Nucleus Collisions,
   June 1-6,1997, Gatlinburg, Tennessee, USA.

43). Isospin dependence of nuclear equation of state and collisions of neutron-rich nuclei
   Colloquium, March 4, 1997, Cyclotron Institute, Texas A&M University, USA.

42). Isospin physics in heavy-ion collisions

41). Excitation functions in central Au+Au collisions from Bevalac to AGS
   Invited talk, Heavy-ion Physics at AGS, Aug. 22-24, 1996, Detroit, Michigan, USA.

40). Intermediate energy heavy-ion physics with radioactive beams
One of six panelists, Workshop on Heavy-ion Collisions at Intermediate Energies July 12-13, 1996, National Superconducting Cyclotron Laboratory, East Lansing, Michigan, USA

39). Excitation functions in heavy-ion collisions from Bevalac/SIS to AGS  
Invited talk, The 12th Winter Workshop on Nuclear Dynamics, Feb. 3-10, 1996, Snowbird, Utah, USA

38). Colliding gold on gold to make Quark-Gluon-Plasma  
Seminar, January 31, 1996, Cyclotron Institute, Texas A&M University, USA

37). Formation of superdense hadronic matter in high energy heavy-ion collisions  
Invited talk, Symposium on Hot and Expanded Nuclear Matter Aug 21-24, 1995, Division of nuclear chemistry and technology, 210th American Chemical Society National Meeting, Chicago, USA

36). Isospin effects in heavy-ion collisions at intermediate energies  
Invited talk, Interactive Workshop on Reaction Dynamics in Heavy-ion Collisions, Aug. 16-17, 1995, Texas A&M University, USA

35). Pionic processes in superdense hadronic matter  

34). Formation of superdense hadronic matter in relativistic heavy-ion collisions  
Seminar, June 19, 1995, Michigan State University, USA

33). Several effects of nuclear incompressibility in heavy-ion collisions  
Invited talk, Interactive Workshop on Nuclear Imcompressibility and Giant Monopole Resonance, May 15-17, 1995, Texas A&M University, USA

32). A relativistic transport model for AGS  
Colloquium, Feb. 21, 1995, Cyclotron Institute, Texas A&M University, USA

31). Collective flow in heavy-ion collisions at AGS energies: a general view from a relativistic transport model  
Invited talk, The 11th Winter Workshop on Nuclear Dynamics, Feb. 11-18, 1995, Key West, Florida, USA

30). A relativistic transport model for AGS  
Seminar, Oct. 27, 1994, National Institute for Nuclear Theory, University of Washington, Seattle, USA

29). Mean field effects in heavy ion collisions at AGS energies  
Seminar, Oct. 21, 1994, Texas A&M University
28). Dynamical and statistical aspects of nuclear multifragmentation  
   **Seminar**, Dec. 13, 1993, FZ Rossendorf, Dresden, Germany

27). Dynamical and statistical aspects of nuclear multifragmentation  
   **Seminar**, Dec. 3, 1993, GSI, Darmstadt, Germany

26). Pion spectra, flow and squeeze-out in relativistic heavy-ion collisions  
   **Seminar**, Nov. 18, 1993, Argonne National Laboratory, USA

25). Dynamical fluctuations in pion spectra of relativistic heavy-ion collisions  
   **Seminar**, Nov. 5, 1993, Wayne State University, Detroit, USA

24). Intermittency in relativistic heavy-ion collisions  
   **Seminar**, Jan. 7, 1993, University of Erlangen, Germany

23). Dynamical instability and multifragmentation in BUU model for heavy-ion collisions,  
   **Seminar**, Mar. 6, 1993, Hahn-Meitner-Institut, Berlin, Germany

22). Dynamical and statistical aspects of nuclear multifragmentation  
   **Colloquium**, Mar. 22, 1993, Ganil, Caen, France

21). Dynamical fluctuations and pion productions at E/A=2.0 GeV  
   **Invited talk**, Topical Workshop on Mesons from Nuclear Collisions,  
   GSI, Darmstadt, Germany

20). Pion spectra, flow and squeeze-out at Bevalac/SIS energies  
   **Invited talk**, The 9th High Energy Heavy-ion Study,  
   Oct. 25-29, 1993, Lawrence Berkeley National Laboratory, USA

19). Dynamical and statistical aspects of nuclear multifragmentation  
   **Colloquium**, Nov. 1, 1993, Texas A&M University, USA

18). Pion spectra, flow and squeeze-out in relativistic heavy-ion collisions  
   **Seminar**, Nov. 2, 1993, Texas A&M University, USA

17). Dynamical fluctuations in relativistic heavy-ion collisions  
   **Invited talk**, Theory Workshop on Dynamical Fluctuations in Heavy-ion Collisions,  
   Oct. 28, 1992, Ganil, Caen, France

16). Pion production in heavy-ion collisions at 1.0 GeV/nucleon  
   **Seminar**, Jan. 23, 1992, Argonne National Laboratory, USA.

15). Effects of the detailed balance for the production and the re-absorption of baryon resonances on pion production.  
   **Seminar**, Jan. 30, 1992, Kent State University, Kent, Ohio, USA.
14). Pion production in heavy-ion collisions at 1.0 GeV/nucleon
   Seminar, March 9, 1992, Hahn-Meitner-Institut, Berlin, Germany

13). Detailed balance between cross sections for the production and the reabsorption of
   baryon resonances, Seminar, April 8, 1992, Hahn-Meitner-Institut, Berlin, Germany

12). Intermittency in relativistic heavy-ion collisions
   Colloquium, June 23, 1992, GSI, Darmstadt, Germany

11). Pion production in a hadronic transport model for relativistic heavy-ion collisions
   Colloquium, June 24, 1992, University of Giessen, Germany

10). Pion production in a hadronic transport model for relativistic heavy-ion collisions
   Seminar, June 25, 1992, GSI, Darmstadt, Germany

9). Dynamical fluctuations in pion pseudorapidity distributions at Bevalac energies
   Invited talk, International Workshop on Relativistic Heavy-ion Collisions,
   Aug. 12, 1992, Budapest, Hungary

8). Pion production in a hadronic transport model for relativistic heavy-ion collisions
   Ganil-Lpc Joint Colloquium, Oct. 23, 1992, Ganil-Lpc, Caen, France

7). Pion spectra in a hadronic transport model for heavy-ion collisions
   Seminar, March 9, 1991, Kent State University, Kent, Ohio, USA.

6). Pion spectra in heavy-ion collisions
   Contributed talk, Spring meeting of the American Physical Society,
   April 25, 1991, Washington D.C., USA.

5). Pion spectra in relativistic heavy-ion collisions
   Brown Bag Lunch Seminar, May 11, 1991, Michigan State University, USA.

4). A hadronic transport model for relativistic heavy-ion collisions
   Seminar, June 20, 1991, Nuclear Physics Summer School,
   University of Wisconsin, Madison, USA.

3). Preferential emission of pions in asymmetric Nucleus-Nucleus collisions
   Contributed talk, September 18, 1991, Mid-west Meeting on Nuclear Theory,
   Indina University, USA.

2). Preferential emission of pions
   Contributed talk, October 25, 1991, Fall meeting of the nuclear physics division,
   American Physical Society, East Lansing, Michigan, USA.

1). Pion production in heavy-ion collisions
   Seminar, Nov. 12, 1991, Oregon State University, Corvallis, Oregon, USA.
Kent Alan Montgomery

Education

1990-1995 Boston University Boston, MA
- Ph.D., in Astronomy

1988-1990 San Diego State University San Diego, CA
- M.S., in Astronomy

1981-1987 Montana State University Bozeman, MT
- B.S., in Mathematics and Physics


Master’s Thesis: “Surface Photometry of the Peculiar Galaxy NGC 6239”, Professor Ronald Angione, Advisor

Employment

2005-Present Texas A&M University-Commerce Commerce, TX
Planetarium Director and Adjunct Faculty

- Oversaw installation of planetarium dome, projection, lighting and sound equipment
- Installed and began public and school group performances in planetarium in January 2006
- Hired staff
- Created promotional material for planetarium shows including mailings, brochures, newspaper articles, radio spots.
- Taught many Introductory Astronomy class
- Helped lead 3 week summer teacher workshop in astronomy for area elementary and middle school teachers
- Organized and lead a summer space camp
- Co-PI on grant for $25,000 from the Texas Space Grant Consortium for in-service teachers
- Developed and taught Archaeoastronomy class in spring 2010
- Helped in development of Astronomy minor at the University

1995–2005 Young Harris College Young Harris, GA
Planetarium Director and Professor

- Managed planetarium with a 40-foot dome; duties included: budgets, personnel, show scheduling, maintenance and operation.
- Teacher of the Year – 2003
- Wrote successful grant proposal and installed new planetarium projector - 2002
- Wrote successful grant then built observatory located just off campus – 2002
Taught undergraduate astronomy classes.
Taught undergraduate physics 1996-1997
Wrote grant proposal and helped build computer lab for Math and Science building - 1998

1990-1994        Boston University        Boston, MA
College Instructor
• Taught introductory astronomy courses.
• Taught astronomy laboratory sections.
• Researched old open clusters, globular clusters, and elemental abundances.
• Worked with colleague on revising laboratory exercises.
• Awarded Teaching Fellow of the year award -1991

1988–1990        San Diego State University        San Diego, CA
College Instructor
• Taught introductory astronomy courses.
• Taught astronomy laboratory sections.
• Researched peculiar galaxies and binary stars.
• Received award for best service to the department. - 1990

1987-1988        Terry High School        Terry, MT
High School Teacher
• Taught physics and mathematics courses.
• Coached basketball, and track

Research Experience
Texas A&M University-Commerce
• Built small observatory with a number of small telescopes, 8 to 16 inch range and support facilities including a 12-foot dome. The observatory will be used for teaching of classes and undergraduate research involving CCD imaging and broadband filter photometry.

Young Harris College
• Built small observatory with a 16-inch Schmidt-Cassegrain telescope housed in a 15-foot dome and a number of smaller telescopes, which are used for public observing and undergraduate research projects.
• Computerized 16-inch telescope and integrated CCD imaging in order to facilitate undergraduate research program.

Boston University
• CCD Photometry using 0.9-meter telescope at Cerro Tololo National Observatory, La Serena, Chile.
• CCD Photometry using 0.9-meter telescope at Kitt Peak National Observatory, Tucson Arizona.

**San Diego State University**
- CCD photometry using 1-meter telescope at Mount Laguna Observatory, San Diego, California.

**Publications**


**Professional Organizations**

Member of the International Planetarium Society
Member of the American Astronomical Society
Member of the Western Association of Planetariums
Planetarium Productions

Planetarium shows produced, written and directed:

<table>
<thead>
<tr>
<th>Cosmic Concert 33</th>
<th>Cosmic Concert 38</th>
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<tr>
<td>A Tale of Many Suns</td>
<td>Cosmology: What Do We Know?</td>
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<td>Cosmic Concert 34</td>
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<td>The Christmas Star</td>
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<td>Cosmic Concert 35</td>
<td>Mars Rediscovered</td>
</tr>
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<td>Mission Discovery</td>
<td>The Changing Sky</td>
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<td>Cosmic Concert 36</td>
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<td>Exploring Autumn Skies</td>
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Planetarium shows adapted and presented:

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<th>Cosmic Catastrophes</th>
<th>Questions?</th>
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<tr>
<td>Endless Horizons</td>
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<td>Hubble Vision</td>
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<td>Galaxies</td>
<td>Earth Whispers</td>
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<tr>
<td>Planet Patrol</td>
<td>Tis The Season</td>
</tr>
<tr>
<td>Our Place in Space</td>
<td>Invisible Universe</td>
</tr>
<tr>
<td>The Story of the Star</td>
<td>The Light-Hearted Astronomer</td>
</tr>
<tr>
<td>Light-years From Andromeda</td>
<td>Explorers</td>
</tr>
<tr>
<td>Comets Are Coming</td>
<td>RingWorld</td>
</tr>
</tbody>
</table>

References:

Dr. Kenneth Janes, Boston University (617) 353-2627
Dr. Robert Nichols, Young Harris College (706) 379-3429
Dr. Paul Arnold, Young Harris College (706) 379-3772
William G. Newton

Department of Physics and Astronomy,  
Texas A&M University-Commerce,  
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Commerce, TX 75429-3011  
Phone: +1 903 366 9331  
Fax: +1 903 886 5480  
email: william.newton@tamuc.edu  
website: http://williamnewton.wordpress.com

Born: March 6, 1978—Blackpool, UK  
Nationality: UK; US Permanent resident.

Current position

2012-present Assistant Professor, Texas A&M University-Commerce.

Areas of specialization

nuclear physics, astrophysics, science education

Appointments held

2008-2009 Postdoc, Texas A&M University-Commerce.  
2009-2012 Adjunct Assistant Professor, Texas A&M University-Commerce.

Education

2002-2008 DPHIL in Physics, University of Oxford  
Thesis Title: “The phase transition to uniform nuclear matter in supernovae and neutron stars”  
Supervisor: Dr. Jirina Rikovska Stone

2000-2002 MSC in Physics, University of Tennessee  
Thesis Title: “Giant resonances in argon isotopes”  
Supervisor: Prof. Michael Strayer

1996-2000 MPhys, University of Oxford  
Final honours school of natural science: Physics, 2:1  
MPhys project: “The diffusion of stars near the sun”  
Supervisor: Prof. James Binney
Funded Grants

PI: Bao-An Li; Co-PI W.G. Newton

Publications

Refereed journal articles

2012 “Efficacy of crustal superfluid neutrons in pulsar glitch models”, J. Hooker, W.G. Newton and Bao-An Li,
To be submitted to MNRAS

Submitted to Phys. Rev. C,
arXiv:1210.3402

2012 “A survey of the parameter space of the compressible liquid drop model as applied to the neutron star inner crust”, W.G. Newton, M. Gearheart, and Bao-An Li,
Accepted for publication in Astrophysical Journal Supplement,
arXiv:1110.4043

2012 “Generic constraints on the relativistic mean-field and Skyrme-Hartree-Fock models from the pure neutron matter equation of state”, F. Fatoyev, W.G. Newton, Jun Xu and Bao-An Li,
Phys. Rev. C86, 025804
arXiv:1205.0857

2012 “Sensitivity of the neutron star r-mode instability window to the density dependence of the nuclear symmetry energy”, De-Hua Wen, W.G. Newton, and Bao-An Li,
Phys. Rev. C85, 025801
arXiv:1110.5985

2011 “Upper limits on the observational effects of nuclear pasta in neutron stars”, M. Gearheart, W.G. Newton, J. Hooker and Bao-An Li,
MNRAS 418, 2343
arXiv:1106.4875
“Constraining the gravitational binding energy of PSR J0737-3039B using terrestrial nuclear data”,
**W.G. Newton** and Bao-An Li,
Phys. Rev. C80, 065809
arXiv:0908.1731

“Modeling nuclear “pasta” and the transition to uniform nuclear matter with the 3D Skyrme-Hartree-Fock method at finite temperature: Core-collapse supernovae”,
**W.G. Newton** and J.R. Stone,
Phys. Rev. C79, 055801
arXiv:0904.4714

“The double pulsar J0737-3039: Testing the neutron star equation of state”,
Ph. Podsiadlowski, J.D.M. Dewi, P. Lesaffre, J.C. Miller, **W.G. Newton**, J.R. Stone,
MNRAS 361, 1243
astro-ph/0506566

“Giant resonances from TDHF”,
P.D. Stevenson, M.R. Strayer, J. Rikovska-Stone, **W.G. Newton**, 
Int. Journ. Mod. Phys. E13, 181,
nucl-th/0310020

**Book Chapter**

“The nuclear symmetry energy, the inner crust, and global neutron star modeling”,
**W.G. Newton**, M. Gearheart, J. Hooker, Bao-An Li,
To appear as a chapter in the book ”Neutron Star Crust”, edited by C. A. Bertulani and J. Piekarewicz
arXiv:1112.2018

**Selected conference proceedings**

“Applying the snowplow model for pulsar glitches to constrain nuclear symmetry energy”,
J. Hooker, **W.G. Newton**, Bao-An Li

“Constraints on the symmetry energy from neutron star observations”,
**W.G. Newton**, M. Gearheart, De-Hua Wen and Bao-An Li
arxiv:1212.4539
Bao-An Li, Lie-Wen Chen, F. Fattoyev, W.G. Newton, Chang Xu,
A lecture given at the International Summer School for Advanced Studies "Dynamics of Open Nuclear Systems", July 9-20, 2012, Predeal, Romania
arxiv:1212.1178

“Pure Neutron Matter Constraints and Nuclear Symmetry Energy”,
F. Fattoyev, W.G. Newton, Jun Xu and Bao-An Li,
arxiv:1209.2718

“Imprints of nuclear symmetry energy on properties of neutron stars”,
Bao-An Li, Lie-Wen Chen, M. Gearheart, J. Hooker, Che Ming Ko, P.G. Krastev, Wei-Kang Lin, W.G. Newton, De-Hua Wen, Chang Xu and Jun Xu,
INPC2010, July 4-9, 2010, Vancouver, Canada
Journal of Physics: Conference Series 312, 042006,
arxiv:1103.4652

“Modeling nuclear pasta and the phase transition to uniform nuclear matter with the 3D-Skyrme-Hartree-Fock method”,
W.G. Newton,
Proceedings of the 5th Facility of Rare Isotope Beams (FRIB) Workshop on Bulk Nuclear Properties, Michigan State University,
AIP Conf. Proc. 1128, 154,
arxiv:0903.1464

“A new study of the transition to uniform nuclear matter in neutron stars and supernovae”,
W.G. Newton,
Physics of Particles and Nuclei, 39, 7, 1173,
arXiv:0708.3212

“From microscales to macroscales in 3D: Self-consistent equation of state for supernova and neutron star models”,
W.G. Newton, J.R. Stone, and A. Mezzacappa,
Journal of Physics: Conference Series 46, 408,
arXiv:0708.3197

“Sub-nuclear matter in neutron stars and supernovae: nuclear pasta and beyond”,
W.G. Newton,
Proceedings of RAGtime 6/7: Workshop on Black Holes and Neutron Stars,
Presentations

Invited Talks, Seminars and Colloquia

Oct 2012  “Measuring nuclear interactions at $10^{20}$ paces”,
            Seminar, Department of Physics, University of Surrey, UK

Mar 2012  “Measuring nuclear interactions at $10^{20}$ paces”,
            Colloquium, Department of Physics and Astronomy, Texas A&M University-Commerce, USA

Oct 2011  “Why do pulsars glitch?”,
            Colloquium, Department of Physics and Astronomy, Texas A&M University-Commerce, USA

Oct 2011  “How deep does a pulsar crust go? Using terrestrial experiments to explore the outer layers of a
            neutron star”,
            Fall Joint Meeting of APS and AAPT and Zone 13 SPS,
            Texas A&M University-Commerce, USA.

Jul 2011  “Inner crust composition and transition densities”,
            INT Program INT-11-2b: Astrophysical transients: multi-messenger probes of nuclear physics,
            Seattle, USA.

Jul 2011  “Nuclear symmetry energy and neutron stars”,
            Seminar, Quarks and Hadrons Group, University of Maryland, USA.

Jun 2011  “The neutron star inner crust: symmetry energy dependence of observable properties”,
            NuSYM11: International symposium on nuclear symmetry energy,
            Smith College, USA.

Oct 2010  “The physics and observable consequences of neutron star crust-core boundary”,
            Seminar, Argonne National Laboratory, USA.

Oct 2010  “The physics and observable consequences of neutron star crust-core boundary”,
            Seminar, Michigan State University, USA.

Apr 2009  “Nuclear pasta and the transition to uniform nuclear matter”,
            Seminar, Los Alamos National Laboratory, USA.

Apr 2007  “Complex microscopic structure in neutron stars and supernovae”,
            Department of Astronomy, University of Central Lancashire, UK

Jan 2007  “Exploring complex microscopic structure in neutron stars and supernovae with 3D Hartree-Fock”,
            Seminar, Institut de Physique Nuclaire d’Orsay, Paris, France.

Feb 2006  “Complex fluids in a neutron star inner crust”,
            Seminar, Department of Applied Mathematics, University of Southampton, UK.
Selected Conference Talks

June 2012  “Symmetry energy aspects of neutron star modeling”,
Compstar 2012: The physics and astrophysics of compact stars
Tahiti, French Polynesia

May 2012  “Combining terrestrial experiments and neutron star observations to constrain the equation of state of asymmetric nuclear matter”,
NN2012
San Antonio, Texas, USA

May 2011  “The neutron star inner crust: upper limits on the observational consequences of nuclear pasta”,
Compstar 2011: Gravitational waves and electromagnetic radiation from compact stars,
INFN Catania, Italy.

Aug 2010  “Constraining the gravitational binding energy of PSR J0737-3039B”,
Pan American Study Institute on the physics and astrophysics of rare isotopes,
Joao Pessoa, Brazil.

Feb 2009  “Modeling nuclear pasta and the phase transition to uniform matter with Skyrme-Hartree-Fock”,
Compstar 2009: The crust of compact stars and beyond,
Universidade de Coimbra, Portugal.

Nov 2008  “Modeling nuclear pasta with Skyrme-Hartree-Fock”,
5th FRIB workshop on bulk nuclear properties,
Michigan State University, USA.

Feb 2008  “The transition from homogeneous to inhomogeneous matter in the neutron star crust”,
Compstar 2008: The complex physics of neutron stars,
Ladek Zdroj, Portugal.

Sept 2006  “Matter at sub-nuclear densities and the inner crust of neutron stars”,
Understanding neutron stars workshop,
University of Alicante, Spain.

Aug 2006  “Sub-nuclear matter in neutron stars and supernovae”,
Helmholtz International Summer School: Dense matter in heavy ion collisions and astrophysics,
Dubna, Russia.

Jan 2006  “Sub-nuclear matter in core collapse supernovae”,
Workshop on supernovae,
International School for Advanced Studies (SISSA), Trieste, Italy.
Sept 2005  “The structure of the neutron star inner crust”,
RAGtime 7: Workshop on black holes and neutron stars,
Opava, Czech Republic.

Aug 2004  “Self-consistent equation of state for hot, dense matter”,
Symposium on nuclear equation of state used in astrophysics models,
Philadelphia, Pennsylvania, USA.

Supervisory Experience

2009-present  Texas A&M University-Commerce
Co-supervised two Masters students (one graduated) on projects related to symmetry energy effects on neutron star models; two published papers, two submitted papers and a book chapter have resulted to date.

2007  University of Oxford
Co-supervised Masters student on the project “Equation of State of Proto-Neutron Stars”

Teaching Experience

2009-present  Texas A&M University-Commerce. Courses taught:
Integrated science courses IS351 and IS352 (General science classes for education majors)
Astronomy 102
Physics 561 (Astronomy Problems, graduate level; course developed from scratch)
Physics 595 (Independent research)

2008  Oxford Tutors UK
Tutored high school students in physics and math in preparation for their A-level exams (final high school exams)

2003-2008  University of Oxford: College Tutor
Organized and gave tutorials; set and marked tutorial work and exams.
Courses taught by undergraduate year (out of the four-year course):

1st  Mathematical Methods; Electromagnetism; Mechanics; Optics

2nd  Mathematical Methods; Quantum Mechanics; Thermodynamics

3rd  Condensed Matter Physics; Astrophysics; Special and General Relativity
2000-2002 University of Tennessee: Teaching Assistant,
Gave classes on theoretical aspects of a subject; ran practical labs based on that theory. Set and
marked mid-term and final exams.
Courses taught: Third-year undergraduate electromagnetism, Astronomy (course meeting science re-
quirements for non-science students):

Professional Affiliations

American Physical Society
American Astronomical Society
American Association for the Advancement of Science
National Science Teachers Association
American Association of Physics Teachers

Other Positions Held

2004-2007 Visiting Student Junior Advisor, St. Edmund Hall, University of Oxford:
Organised welcome and social events for students visiting from abroad; responsible for students welfare
during the first few weeks of their visit.

2003-2004 Cover Dean, St. Edmund Hall, University of Oxford:
Responsible for student discipline and welfare on college site.
Charles H. Rogers
Texas A&M University – Commerce
Departments of Physics and Computer Science
Commerce, TX 75429

telephones: 903-886-5486 office, 903-886-5480 fax; 903-886-3091 home
e-mail: charles_rogers@tamu-commerce.edu

ACADEMIC DEGREES

PROFESSIONAL EXPERIENCE
Professor of Physics and Computer Science, Texas A&M University-Commerce, Commerce, Texas, 1989-present.
Associate Professor of Physics and Computer Science, East Texas State University, Commerce, Texas, 1980-1989.
Assistant Professor of Physics, Southern Arkansas University, Magnolia, Arkansas 1969-1975.

FACULTY TEACHING LOAD (past five years)

Spring 2012:
Digital Logic and Circuitry - Physics 332 and 332 labs - 4 credit hours
Integrated Science - IS-1415 and labs - 4 credit hours
Advanced Microelectronics - Computer Science/Physics 432 - 3 credit hours
Advanced Microelectronics - Computer Science/Physics 552 - 3 credit hours
Advanced Physics Laboratory - Physics 441 - 2 credit hours

Summer 2012:
Advanced Microelectronics - Computer Science/Physics 552 - 3 credit hours
Micro Instr and Control - Computer Science 542 - 3 credit hours
College Physics II - Physics 1402 and lab - 4 credit hours
Honors Thesis - Physics 418
Research Lit & Techniques - Physics 595

Fall 2012:
Integrated Science I - IS 1415 and labs- 4 credit hours – (two sections taught)
Instrumentation and Control - Physics 492 / CSci 497 - 3 credit hours
Micro Instr and Control - Physics 542 and Computer Science 542 - 3 credit hours

Spring 2011:
Digital Logic and Circuitry - Physics 332 and 332 labs - 4 credit hours
Advanced Electricity and Magnetism - Physics 412- 3 credit hours
Advanced Microelectronics – Physics 432 – 3 credit hours
Advanced Microelectronics - Physics 552 - 3 credit hours
Advanced Microcontroller Electronics - Computer Science 552 - 3 credit hours
(2 sections of 552)
Advanced Physics Laboratory - Physics 441 - 2 credit hours
Classical Mechanics – Physics 489 – 3 credit hours

May-Mini 2011
Physics 597 – Optics – 3 credit hours

Summer 2011:
Advanced Optics – Physics 597 – 3 credit hours
Micro Instr and Control - Computer Science 542 - 3 credit hours
College Physics II - Physics 112 and 332 labs - 4 credit hours
Thesis – Physics 519 and Computer Science 518

Fall 2011:
Integrated Science I - IS 1415 - 4 credit hours
Instrumentation and Control - Physics 492 / CSci 497 - 3 credit hours
Micro Instr and Control - Physics 542 and Computer Science 542 - 3 credit hours
Advanced Physics Laboratory - Physics 441 - 2 credit hours

Spring 2010:
Digital Logic and Circuitry - Physics 332 and 332 labs - 4 credit hours
Advanced Mechanics - Physics 411 - 3 credit hours
Advanced Microelectronics - Physics 552 - 3 credit hours
Advanced Microcontroller Electronics - Computer Science 552 - 3 credit hours
(2 sections of 552)
Advanced Physics Laboratory - Physics 441 - 2 credit hours

Summer 2010:
College Physics II - Physics 112 and 332 labs - 4 credit hours
Theses – Physics 519 and Computer Science 518

Fall 2010:
Wave Motion, Acoustics, and Optics - Physics 333 and 333 Lab - 4 credit hours
Instrumentation and Control - Physics 492 / CSci 497 - 3 credit hours
Micro Instrumentation and Control - Physics 542 and Computer Science 542 - 3 credit hours
(2 sections total)
Advanced Physics Laboratory - Physics 441 - 2 credit hours
Theses - CSci 518 and Honors 418

Fall 2009:
Instrumentation and Control - Physics 492 – 3 credit hours
Micro Instrumentation and Control - Physics 542 and Computer Science 542 – 3 credit hours
(3 sections total)
Theoretical Mechanics – Physics 511 – 3 credit hours

Spring 2009:
Digital Logic and Circuitry - Physics 332 and 332 labs – 4 credit hours
Optics – Physics 430 – 3 credit hours
Advanced Microelectronics - Physics 552 – 3 credit hours
Advanced Microcontroller Electronics - Computer Science 552 – 3 credit hours
(2 sections of 552)
Advanced Physics Laboratory – Physics 441 – 2 credit hours

**Summer 2009:**
Parallel Computing - Physics 489, Physics 572, and Computer Science 572 – 3 credit hours
GPU Processing – Computer Science 589 – 3 credit hours
Thesis – Physics 518

**Fall 2009:**
Instrumentation and Control - Physics 492 – 3 credit hours
Micro Instrumentation and Control - Physics 542 and Computer Science 542 – 3 credit hours (3 sections total)
Theoretical Mechanics – Physics 511 – 3 credit hours

**SERVICE ACTIVITIES**
Serving as the Physics Undergraduate Student Advisor
Served as a departmental instructor on the Project STEEM.
Served as chair or as a member of student thesis/dissertation committees
Served on the new Department of Physics Head selection committee.
Chair or member of faculty promotion committees.
Played a key role in the development of the advanced physics laboratory for upper-level undergraduates.
Submitted HEF funds request for Advanced Lab, Electronics Labs, and Signal and Systems Lab.
Served as departmental representative on the Operation Spark wind tunnel project.
Provided aerial photographs of the recent changes to the university campus including the new science building.
Consulting with our faculty and local and area businesses.
Relocation of the department to the new science building required many meetings within the department and with facility personnel. Selecting and ordering new equipment for this move also required considerable effort. Moving my office, research laboratory and teaching laboratories to the new science building and preparing for the building dedication ceremonies.
Member of the University Studies Committee
Member of the University Hearing Committee
Member of the Science Building Committee
Developed a new course in astrophotography.
Provided campus aerial photographs to the TAMU-C Office of Planning and Institutional Effectiveness for inclusion with federal grant applications from this campus.
Participated as cinematographer at the Dallas Technological Exposition, Dallas Convention Center.
Participated as cinematographer at the Winston Science Events at Fair Park in Dallas.
Promoted astronomical education by hosting local observation sessions for the total lunar eclipse and the annual/special meteor displays.
Consulted on a meteorite search near Paris, Texas.
Recognized by the Greenville Christian School for assisting in a Galileo Tower of Piza experiment with the science students.
Continued working on HP-UX and Linux X-applications.
Continued development of networking applications on microcomputer running various operating systems.
Member of the University’s Academic Computing Advisory Committee
Continued consulting activity with the public and area businesses.
Sponsored a trip to UNT to participate in NSF funded program for advanced laboratory experiments for the physics 441 class.
Regional Science Fair Judge, Kilgore Junior College.
Member of Student Grievance Hearing Committee appointed by the Dean of Arts & Sciences.
University representative to a joint committee studying potential educational opportunities between E-Systems and the Texas A&M System.
Chairman of the Faculty Senate’s Academic Practice Committee.
Member of the Academic Computing Advisory Committee.
Member of the University Studies Committee beginning in 1981.
Member of the University Computer Resources Planning Committee.
Served as a member of Faculty Senate.
Served as a member of Presidential Inaugural Forum Committee
Member of Graduate Council’s Committee on Graduate Faculty, Research and Instruction.
Provided continuous scientific and technical consultation with area public schools and industry.
Assisted many faculty members and their students in technical matters related to microcomputer and associated hardware, software, and interfacing for applications in teaching and research.
Member of the Departmental Computer Resources Planning Committee.
Served as a judge at local, regional, and international science fairs and have supported many local student participants in their research activities.
Served as past sponsor of the Society of Physics Students and Sigma Pi Sigma - Physics Honor Society faculty sponsor.
Constructed a new poster presentation for the department.
Developed new lecture demonstrations
Performed image processing for students and faculty.
Promoted astronomical events for students and the public.
Member of the College of Arts and Sciences’ University Reorganization Committee
Member of the college Tenure and Promotion Committee
Member of SACS Compliance Committee
Treasurer for TAMU-Commerce Sigma Xi chapter.

PROFESSIONAL ASSOCIATION MEMBERSHIPS

American Association of Physics Teachers.
Institute of Electrical and Electronics Engineers
American Society for Engineering Education

PROFESSIONAL ASSIGNMENTS, ACTIVITIES (NON TEACHING)
Design and fabrication team member for a $75K high vacuum thin film deposition system.
Design and fabrication team member for a laboratory cleanroom.
Advisor/mentor for four REU projects.
Acquired stabilized lasers and fiber optic positioners worth $30k with HEF funds.
Acquired a $100K class robotic system from Texas Instruments and the Science Place.
Participated in several research projects pertaining to speech waveform analysis, speech recognition, speech enhancement, and the development of high quality low bit-rate speech data compression algorithms and including speech quality testing. Work has been funded through E-Systems, and is a team effort involving three colleagues and numerous undergraduate and graduate students. This group has also developed several new fast algorithms and special digital signal processing systems. Present interests center on the development of new methods for characterizing speech signals for use in detecting fundamental perceptual information.
Research of two topics in communication for E-Systems. These were (1) low angle electromagnetic propagation in the atmosphere and its dependence on meteorological hydrometers, and (2) secure spread spectrum communication techniques. Both areas are expected to be of increasing importance for future microwave and laser communication systems.
Participated in E-Systems research on theory and signal processing applications for several of the neural network models.
Started campus research group on (1) of vector subspace direction finding algorithms and (2) high resolution spectral analysis for infrared spectroscopy.
Recent research conducted in neural network processing of speech and vision signals. Presently in the process of developing algorithms for pre-processing signals for neural network input and neural networks capable of recognizing temporal patterns and enhancing speech signals.
Principal/Co-Investigator to (1) four research projects within academic institutions (2) four research projects for industry, and (3) eight industrially sponsored academic research projects. These have received total funding of approximately $500,000.
Advanced lab class activity at UNT’s accelerator laboratory.
NSF ILI grant ($100k including federal, state, and industrial matching monies) submitted and funded for the physics advanced undergraduate laboratory.
Attended a NSF grant writing workshop in Washington DC.
Set up Web server and published first web page.
PVDF material grant donated for an electret project.
$500 semiconductor devices grant from Dallas Semiconductor.
$2,000 power supply grant from Texas Instruments & the Science Place for a robotic mechanism.
RF components donated by a Dallas-based telecommunications industry for use in an array of microwave receivers for radio astronomy.
Industry matching grant submitted to Micron to support NSF-ILI grant.
Device grant from Analog Devices for MEM sensors, electrometers, ADCs, IF-Detectors.
Device grant from Motorola for MEM sensors.
Device grant from ZMD funded.
Device grant from Tech-Tools funded.
FEM code written for digitizing surfaces.
MEMS sensor applications with RISC microcontrollers.
Workshop on PLD applications and VHDL coding.
$10,000 equipment grant of AMD Athlon processors for a supercomputing cluster project.
$5,000 equipment grant from Agilent Technologies (formerly HP) to supplement the new oscilloscopes.
$8,000 Organized Research Grant (ORG) from A&M-Commerce Graduate School.
$15,000 equipment grant from Northrop-Grumman Electro-Optical Systems to support the above ORG.
Co-Investigator for a Texas A&M University – Regents Initiative grant.
Equipment Request for Electronics Instruction with the Junior Colleges written for computer science.
Co-Investigator for a $10,000 Toyota Tapestry grant to CPISD.

PUBLICATIONS


KAP photograph of the campus for the 2005 graduate catalog cover.

An article entitled “Kite-Borne RC Photography” describing my KAP system was published in Fly RC Magazine, July 2004.

Article on my KAP efforts by the A&M System, Texas

Another article on my KAP activities in the A&M-Commerce Pride

Photographs and text for an exhibit on the exploration of Blanchard Caverns, OIRM August 2003.


NSF invited paper reporting data acquisition techniques at the national ASEE meeting in St. Louis, June 2000.

Provided field data and assistance for the AllTopoMaps GPS accuracy and Datum Shift report in July 2000.

Annual report to NSF for the ILI grant in June 1999.


“Self-Organization by Artificial Neural Networks”, presentation at the NSF Chautauqua Short Course on Self-Organization, University of Texas at Austin, March, 1990.

“Application of the Computer printer Port for the Acquisition of Laboratory Data” presentation with R. Neal at the APS/AAPT/SPS joint fall meeting in San Antonio, October 1989.


“Speech Separation with Artificial Neural Networks”, presentation and paper with D. Featherston, and K.S. Min, in International Neural Network Society's Neural Networks, 1, S1, p.294, September 1988. (an extended abstract published in this journal for our poster presentation).


Digital Speech Storage, Compression, and Synthesis – co-author with C.E. Jones, B.M. Doughty, and K.S. Min on monthly and annual reports for sub-contract research projects funded by E-Systems’ Greenville Division. These are as follows:


“Multiple Signal Classification Techniques for a Specialized Antennae Array”, presentation at E-Systems Garland Division, August 1990.


PAPERS PRESENTED

“Optical Foucault Pendulum” with Dr. Richard Selveggi Fall Joint APS/AAPT/SPS Meeting at Texas Tech University, Lubbock, Texas, October 2012

“Mapping the Double-slit Diffraction Pattern” with Richard Selvaggi, and Clay Richardson, Fall Joint APS/AAPT/SPS Meeting at the University of Texas at San Antonio, October 2010

"A Reconfigurable Stepping Motor” by Charles Rogers and Richard Selvaggi, Texas Section Joint AIP-AAPT-SPS meeting, Tarleton State University, Stephenville, TX, April 2009.

"Replicating the Michelson-Morley Experiment” by Charles Rogers and Richard Selvaggi, Texas Section Joint AIP-AAPT-SPS meeting, Texas State University, San Marcos, TX, October 2009.

"3D Animation of Frenel's Equations" a presentation by my optics class of the first python animation of Fresnel's laws of reflection with an interactive graphical user interface at the at the Texas Section Joint AIP-AAPT-SPS meeting, Tarleton State University, April 2009. This presentation was awarded a monetary prize for a best paper.

Poster paper on robotic mechanisms presented with Hao-Liang Chen at the Texas Section Joint AIP-AAPT-SPS meeting at Tarleton State University, April 2009

“A Mathematical Model to Derive the Lorentz Factor, Zero Velocity, and Length Contraction (Finding a Privileged Reference Point)” with Richard Selvaggi at the Fall Joint Meeting of the Texas Sections of the AAPT and APS, Texas A&M University, October 2007.

“Using Zero Velocity to Explain the Michelson-Morley and 2007 Rogers-Selvaggi-Chen Experiment” with Richard Selvaggi at the Fall Joint Meeting of the Texas Sections of the AAPT and APS, Texas A&M University, October 2007.
“A One-way Light Beam Experiment” with Richard Selvaggi and Hao-Liang Chen at the Fall Joint Meeting of the Texas Sections of the AAPT and APS, Texas A&M University, October 2007.


A paper entitled “A New Linear Actuator” was presented at the Texas Region APS/AAPT/SPS meeting at Southwest Texas State University, March 2003.

A paper entitled “Surveying Sunsets” was presented at the Texas Region APS/AAPT/SPS meeting at Southwest State Texas University, March 2003.


A new remote control system for aerial observations. Several versions of this work presented in local newspapers, two regional television broadcasts, an A&M-Commerce website news article, the Winter 2002 issue A&M-C Pride, the Nov-Dec issue of the A&M System newsletter, the December 2002 Board of Regents meeting, and the Signal and Systems Laboratory website.

Contributed Campus and Dallas photographs for the Graduate School’s new Website spring 2003.

Stereoscopic digital video observational data for the 2002 Leonid Meteor Storm collected and was the subject of the winning poster presentation at the spring 2003 Sigma Xi Research Forum.

A paper on a 21-node Beowulf Cluster with Chris Salch at the Texas Region APS/AAPT/SPS meeting in Fort Worth, October 2001.

Presentation of a 21-node Beowulf Cluster with Chris Salch at the Raytheon-Greenville Division, November 2001.


A paper on thermal diffusion in solids with Dinh Truong at the Texas Region AAPT/SPS meeting in Tyler, March, 1999.

A paper on MCA design with a DAQ1200 card with Andrew Wolverton at the Texas Region AAPT/SPS meeting in Tyler, March, 1999.

A paper on advanced laboratory design at the Texas Region AAPT/SPS meeting in Tyler March, 1999.

A paper on embedded computing with NI’s LabVIEW at the national AAPT summer meeting in San Antonio, August, 1999.

A paper on the experimental measurement of thermal diffusion in solids with Aaron George and Dinh Truong at the TAMU-Commerce Sigma Xi Fifth Research Forum, April 1998.

A paper on instrumentation and control with Abidin Yildirim at the TAMU-Commerce Sigma Xi Fifth Research Forum, April 1998 which won top paper of the forum. This work helped Mr. Yildirim gain full-time employment in instrumentation and control, and later to enter the Ph.D. program at the University of Alabama.

A paper presented on campus with Richard Goodrich on the design of the multichannel digitizer for the rooftop array radio-telescope not reported last year.


A paper on design of a rooftop array radio-telescope with Darin McIntier, Steve Dotson, and the Physics 418 class at 1996 Fall Joint APS/AAPT/SPS meeting held at UNT, October 1997.

A paper in signal processing presented with Casey Qualls, Graduate Assistant at 1996 Fall Joint APS/AAPT meeting held at UNT Arlington, October 1996. The paper was judged top paper of the meeting. The version of this paper was also presented for a local physics seminar in November 1996.

An abstract for a paper in signal processing was submitted with Kenneth Hunt, Graduate Assistant, for the Fall Joint APS/AAPT, UT Arlington in October 1996.


“Modeling Neural Networks” presented with W.J.B. Oldham, AIP Texas Section, Texas A&M University, November, 1985.

“Correlation of Objective Quality Measures to Subjective Intelligibility of Processed Speech” presented with C.E. Jones, B.M. Doughty, and K.S. Min, AIP Texas Section fall meeting, November 1985.


“A Case Study of an Industrially Sponsored Academic Research Project” presented with C.E. Jones, B.M. Doughty, and K.S. Min, AIP Texas Section fall meeting, NTSU, November 1983.

“Interfacing Microcomputers” several seminars presented to groups at East Texas State University, Stephen F. Austin University, and Lone Star Steel Incorporated, 1980-82.

“Data Acquisition with Microcomputers” National AAPT Summer Meeting, Las Cruces, New Mexico, June 1979.

HONORS AND AWARDS RECEIVED

Eagle Scout and Vigil Honor from the Order of the Arrow as an Explorer Scout of America
Pi Mu Epsilon, Mathematics Honor Society
Sigma Pi Sigma, Physics Honor Society
Sigma Xi, Scientific Research Society
Phi Delta Kappa, Professional Society in Education
National Teaching Fellow, a federal award for college teaching
Recognition as a pioneering cave explorer of Blanchard Springs Caverns, August 2003
Dr. Kurtis A. Williams  
Department of Physics & Astronomy  
Texas A&M University – Commerce  
P.O. Box 3011, Commerce, TX 75429  
(903) 886-5516  
kurtis.williams@tamuc.edu

Education

University of California Santa Cruz, Santa Cruz, CA  
Ph.D., 2002, Astronomy & Astrophysics  
M.S., 1999, Astronomy & Astrophysics  

The Pennsylvania State University, University Park, PA  
B.S., 1996, with highest distinction and Honors, Astronomy & Astrophysics  
B.S., 1996, with highest distinction, Physics

Employment

2010–present  
Assistant Professor, Texas A&M Univ. – Commerce, Commerce, TX

2009–2010  
Postdoctoral Researcher, Univ. of Texas, Austin, TX

2006–2009  
NSF Postdoctoral Fellow, Univ. of Texas, Austin, TX

2003–2006  
Research Associate, Steward Observatory, Tucson, AZ  
Supervisor: Prof. Ann Zabludoff

Grants

Awarded:

2012–2013  
Texas Space Grant Consortium (PI)  
*Development of an On-Line Introductory Astronomy Course*  
$13k

2011–2013  
GALEX Cycle 6 GI Program (PI)  
*Time Series Observations of the Mysterious Carbon Atmosphere White Dwarfs*  
$65k

2008–2010  
HST Cycle 16 E/PO HST16-456 (PI)  
*White Dwarfs in the Open Star Cluster NGC 188: A Professional Development Experience for Teachers*  
$20k

2007–2010  
HST Cycle 16 Program GO-11141 (PI)  
*White Dwarfs in the Open Star Cluster NGC 188*  
$133k

2006–2009  
NSF Postdoctoral Fellowship AST-0602288 (PI)  
*A Large, Homogeneous Open Cluster White Dwarf Sample*  
$201k

2003–2008  
NSF 3-Year Award AST-0307492 (CoI)  
*White dwarfs in open clusters*  
$195k
Research In Progress

- Determining the mass dividing stars that form white dwarfs and stars that go supernovae
- Measuring the age spread of white dwarfs in the Galactic thick disk and halo
- Exploring the unknown origins of white dwarfs with carbon atmospheres
- Characterizing the environments of strong gravitational lenses

Awards & Fellowships

<table>
<thead>
<tr>
<th>Year</th>
<th>Award Description</th>
<th>Amount/Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006–2009</td>
<td>NSF Astronomy &amp; Astrophysics Postdoctoral Fellowship</td>
<td>3-year fellowship</td>
</tr>
<tr>
<td>2005</td>
<td>Steward Observatory Lucas Award</td>
<td>$5000 research grant</td>
</tr>
<tr>
<td>2000–2001</td>
<td>ARCS Foundation Scholarship</td>
<td>$10,000 graduate fellowship</td>
</tr>
<tr>
<td>1999</td>
<td>Albert P. Whitford Prize</td>
<td>2nd-year graduate student award</td>
</tr>
<tr>
<td>1997–2000</td>
<td>NSF Graduate Research Fellowship</td>
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<tr>
<td>1996–1997</td>
<td>Fulbright Fellowship</td>
<td>Ludwig-Maximilians-Universität</td>
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<td>Munich, Germany</td>
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</tbody>
</table>

Related Activities

2012 Invited Speaker, *18th European Workshop on White Dwarfs*
2011 Participant, *AAPT Workshop For New Physics and Astronomy Faculty*
2011 Participant, Training, *CAE/CATS Astro 101 Teaching Excellence Workshop, Tier 1*
2010 Participant, *Building Astronomy in Texas Symposium*
2010 Speaker, *17th European Workshop on White Dwarfs*
2009 Invited Speaker, KITP Conference, *Stellar Death and Supernovae*
2008 Invited Keynote Speaker, Royal Astronomical Society Specialist Discussion, *Super-AGB Stars and the Fine Line Between White Dwarf or Supernova*
2007 Co-chair, 2008 NSF Astronomy & Astrophysics Postdoctoral Fellows Symposium
2007 Invited Speaker, KITP Conference, “Paths to Exploding Stars”

Teaching Experience

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course Number &amp; Title</th>
<th>Enrollment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall 2012</td>
<td>Astr 1411: <em>Astronomy of the Solar System</em></td>
<td>80</td>
</tr>
<tr>
<td></td>
<td>Astr 1412: <em>Stars and the Universe</em></td>
<td>58</td>
</tr>
<tr>
<td></td>
<td>Astr 1412W: <em>Stars and the Universe Online</em></td>
<td>38</td>
</tr>
<tr>
<td>Spring 2012</td>
<td>Astr 337: <em>Introduction to Astrophysics</em></td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Astr 1412: <em>Stars and the Universe</em></td>
<td>80</td>
</tr>
<tr>
<td></td>
<td>Phys 201: <em>Problem Solving in Mechanics</em></td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>Phys 2425: <em>University Physics I</em></td>
<td>33</td>
</tr>
<tr>
<td>Fall 2011</td>
<td>Astr 1412: <em>Stars and the Universe</em></td>
<td>75</td>
</tr>
</tbody>
</table>

Continued on next page
Other Educational and Public Outreach Activities

2004–present Creator and manager, “Professor Astronomy” website
   http://blog.professorastronomy.com
2004–present Contributor, “Ask Astro” column, Astronomy magazine
2009 Co-coordinator, UT Library International Year of Astronomy Celebration
2009 Invited Speaker, McDonald Observatory Board of Visitors Meeting
2006–2009 Co-coordinator/Facilitator, “White Dwarfs and the Age of the Galaxy Teacher Development Workshop” at McDonald Observatory
2006 Lecturer, Steward Observatory Public Evening Lecture Series

Service Activities

Professional & University Service

2010–present Advisor, Society for Physics Students
2012 Member, A&M-Commerce Faculty Credential Committee
2012 Member, Physics & Astronomy Faculty Search Committee A&M-Commerce
2012 Judge, Chambliss Award, Winter Meeting of the American Astronomical Society
2011 Session Chair, Fall Meeting of the Texas Section of the American Physical Society
2011 Department Representative for Mane Event
2008 Review Panel Member, GALEX GR4 Panel Review
1997–present Member, American Astronomical Society

Student Advising

2012 Advisor, Research Experience for Undergraduates, Misa Fioretto & Kevin Schultes
2011 – 2012 Undergraduate Student Research Advisor, Caitlin Jayroe, White Dwarfs in Southern Hemisphere Open Clusters
2011 Advisor, Research Experience for Undergraduates, Michael Bierwagon & Joshua Crittenden
Refereed Publications


**Selected Non-Refereed Publications**


CURRICULUM VITAE

Name: Matthew A. Wood

Address: Department of Physics and Astronomy
Texas A&M University–Commerce
Tel: 903-886-5488
Email: Matt.Wood@tamuc.edu

Education:
- Ph.D., Astronomy: The University of Texas at Austin, May 1990
- M.A., Astronomy: The University of Texas at Austin, Dec. 1985
- B.Sci., Physics: Iowa State University, May 1983

Work Experience:
- 8/12 – Present: Department Head & Professor
  Department of Physics and Astronomy
  Texas A&M University–Commerce
- 8/04 – 7/12: Professor
  Department of Physics & Space Sciences
  Florida Institute of Technology
- 8/96 – 7/04: Associate Professor
  Florida Institute of Technology
- 6/91 – 7/96: Assistant Professor
  Florida Institute of Technology
- 6/90 – 5/91: NSF–NATO Postdoctoral Fellow
  Département de Physique
  Université de Montréal

Societies:
- American Astronomical Society
- International Astronomical Union
- Royal Astronomical Society
- Sigma Pi Sigma
- Florida Academy of Sciences

Visiting Scientist:
- International Ultraviolet Explorer Satellite (NASA/Goddard)
- Kitt Peak National Observatory
- Mauna Kea Observatory
- Keck Observatory
- Hubble Space Telescope
- McDonald Observatory

Proposal Reviewer: NSF / NASA / NOAO / NOVA (Dutch NSF)

Referee:
- The Astrophysical Journal (Main Journal and Letters)
- Monthly Notices of the Royal Astronomical Society
- Astronomy and Astrophysics
- SCIENCE
- Publications of the Astronomical Society of the Pacific
- Astrophysics and Space Science
Major Grants: PI on grants totaling USD $1.9 million. Selected recent:

NASA Kepler Mission (PI)  
“Cataclysmic Variables in the Kepler Field”  
2012-2013 ($29,522)  

NSF Stellar Astronomy & Astrophysics (PI)  
“Kepler Field Cataclysmic Variables and the Nature of Astrophysical Plasma Viscosity”  
2011-2014 ($224,720)  

NSF REU SARA Site Program (PI)  
“The Southeastern Association for Research in Astronomy REU Summer Intern Program”  
2010-2012 ($385,858)  

NSF REU SARA Site Program (PI) “The Southeastern Association for Research in Astronomy REU Site Program”  
2006-2010 ($478,180)  

NSF Major Research Instrumentation (Co-PI) “Acquisition of a Small Telescope for Astron. Research: Florida Tech’s ‘Rising STAR Project’”  
2004-2005 ($347,000)  

Courses Taught:  
Physics 1 and 2  
Computational Physics  
Introduction to Space Sciences  
Methods & Instrumentation in Astronomy  
Astrophysics 1: Stellar Structure and Evolution  
Astrophysics 2: Galactic Structure and Cosmology  
Introduction to Plasma Physics  
Physics of the Atmosphere  
White Dwarfs and Accretion Phenomena in Astrophysics (Graduate)  
Astrophysics 1: Stellar Structure and Evolution (Graduate)  
Astrophysics 2: Galactic Structure and Cosmology (Graduate)  

Other:  
Coordinator and Host: Florida Tech Astronomy Public Lecture Series, 2005-2012 (visit youtube.com/fitastro)  
Chair of Southeastern Assoc. for Research in Astron. (SARA) 1998-2000  
Program Director, SARA-REU Summer Site Program, 1998-2012  
Editor and founder of JSARA, a journal featuring undergraduate research results (visit www.jsara.org)  
SARA Board Member, 1995-1998, 2000-2005  
Florida Tech Space Sciences Curriculum Coordinator, 1993-2012  
Florida Tech Chair of Comprehensive Exam Committee
**Publications:** Total Refereed: **78**  Non-Refereed: **79**  h-index: **31**


**Refereed Publications**

Note: In the interest of space, I list papers with more than 8 authors as “FirstAuthor et al. (includes Wood, M.A.)”.


14) Bergeron, P., Wesemael, F., Beaucamp, A., Wood, M.A., Lamontagne, R., Fontaine, G.,
and Liebert, J. 1994, “A Spectroscopic Analysis of DAO and Hot DA White Dwarfs: The

15) Kleinman, S.J., et al. (includes Wood, M.A.) “Observational Limits on Companions to

16) Breger, M.A., et al. (includes Wood, M.A.) “The $\delta$ Scuti star FG Vir. I. Multiple
pulsation frequencies determined with a combined DSN/WET campaign” 1995, *A&A*,
297, 473.


18) Provençal, J.L., et al. (includes Wood, M.A.) “The Unusual Helium Variable AM CVn”

19) Kepler, S.O., et al. (includes Wood, M.A.) “Whole Earth Telescope Observations of the

20) Kawaler, S.D., et al. (includes Wood, M.A.) “Whole Earth Telescope Observations and

21) Breger, M., et al. (includes Wood, M.A.) “The $\delta$ Scuti star FG Vir. II. A search for high


24) Handler, G., et al. (includes Wood, M.A.) “New Whole Earth Telescope observations of


458.

Simulations of Proper-Motion- and Magnitude-Limited Samples Using Schmidt’s $1/V_{\max}$


Non-Refereed Publications:


33) Kuehn, K., & Wood, M.A. “Taking the Pulse of SU UMa Stars” 1999, *IAPPP Communications*, 73, 51


62) Foing, B. H., et al. (includes Wood, M. A.) 2006, LPI Contributions, 1327, 9


68) Teichgraeber, C., Wood, M. A., Patterson, J. Monard, B., Rea, R., & Kemp, J., “Updates on Two New Cataclysmic Variable Systems: 1RXS J173021.5-55933 and 1RXS J180340.0+401214,”, 2007, JSARA, 1, 24


M. Cheri Davis

P O Box 3011, Commerce, TX 75429-3011
903 468 8650 (ofc) 903 468 8651 (fax)

Education

- Ed.D.* Supervision Curriculum & Instruction in Higher Education: Educational Leadership
  Minor in Science *2013
  (ABD 2012)

- Master of Science Broadfield Science focus in Physics 2005

- Bachelor of Science Interdisciplinary Studies major in Science 2002-2004

- Teacher Certification Composite Science

  Dissertation Mathematics and Science Education Attrition, Retention, Migration: A Study of Three Urban School Districts in the State of Texas

  Masters Research K-12 Curriculum alignment differential between NSES & TEKS

Professional Experience

- Texas A&M University-Commerce 2005-present
  Assistant Planetarium Director
  - Adjunct Instructor Science Education Courses
    - IS 351
    - IS 451
    - PHYS 489
  - Astronomy lab coordinator/instructor
    - ASTR 1411
    - ASTR 260
    - ASTR 310
    - ASTR 101
    - ASTR 102
  - NASA Texas Space Grant Representative (TSGC)
  - TSGC Scholarship Committee
  - TSGC Grant Reviewer
  - Columbia Crew Scholarship Committee TAMU-C
  - SARA Consortium
Grants, Research, and Special Projects

- Faculty Search Committee-Math Department 2013
- Region 8 Service Center-Teacher Professional Development (Exo Planets)
- Noyse Scholars-Summer 2012 Program
- Faculty Search Committee-Math Department 2012
- Metroplex Technology Business Council Committee
- REU Research Summer 2012
- Organizing Committee for the 11th International Conference on Nucleus-Nucleus Collisions
- Project Dream 2012
- Region 8 Service Center Teacher Development Collaboration 2012 (Celestial Mechanics)
- Photometry and Lightcurve Analysis of Asteroids
- Region 8 Service Center Teacher Development Collaboration 2011 (Astronomy)
- Texas Section, American Physical Society Conference Coordinating Committee
- NSF Conference
- Project Dream 2011
- Consultant for development/managing of a new planetarium facility and staff
- Co-coordinator APS Conference-Texas Section
- Region 8 Service Center Teacher Development Collaboration 2010
- Photometry and Lightcurve Analysis of Asteroids-Feasibility Study 2010-current
- Aerospace Educational Services Project-AESP Grant-Explorations of the Solar System Funded through the National Space Grant Foundation (Award $28,888) 2010
  - Undergraduate/Graduate level course developed for preservice/inservice science teachers-focus: delivery methods and astronomy content
- Math, Science and Technology Teacher Academy (MASTA) Grant funded through the Texas Higher Education Coordinating Board (Award $685,000) 2009-2010 Senior member, Instructor, site visits
  - Undergraduate/Graduate level course developed for preservice/inservice teachers-focus: pedagogy, mathematics and science content
- Aerospace Educational Services Project-AESP Grant-Lunar Exploration Funded through the National Space Grant Foundation (Award $25,314) 2009
  - Graduate level course developed for inservice science teachers with a focus on delivery methods and astronomy content
- Grant PI, instructor, curriculum development, on-site school visits, exhibit procurement
- Organize and facilitate Space Camp for middle school students
  - Project co-administrator
  - Curriculum development
  - Instruction
Job requirements

- Planetarium operations
  - Contract negotiations, promotional material, public relations and media releases, public speaking engagements, special programs coordinator, computer programming and show development, hire/manage/train staff, equipment procurement, presenter for live planetarium shows
  - Special programs: Boy Scouts, Girl Scouts, Girls in Science
- STARLAB—portable planetarium system, school visits and presentations, instruction for inservice teachers to facilitate use of the STARLAB
- Observatory Operations
  - Construction
  - Observatory facilitation: Astronomical CCD Imaging, Astronomical computer programs: Maxtor, Maxim DL, SBIG, Meade, InFocus, the Sky6, astronomical observation with astronomy students, host public open houses, photometric research analysis, feasibility study, labs
- Instructor-science education courses, curriculum development, pedagogical standards, assessments and outcomes, testing strategies
- Instructor astronomy labs, content development, astronomical imaging, developed user manuals for the observatory and imaging equipment
- Student projects: radio/TV

- GISP 2005
  - Junior High Science Teacher, Longevity study for NOVA course development:
    - Interviews, Committee Observations
  - Mentor students in the career development program at New Horizons for GISP graduating students who were interested in teaching as a profession
  - BETA Sponsor

- Texas A&M University-Commerce 2003-2005
  - GA-Dr. Gilbert Naizer—MLED & ELED Department: Assistant, Technology
  - TA-Dr. Keith West—Physics Department: TA Science Education Courses, Co-taught courses Integrated Science-351 & Integrated Science 451, NOVA course development
  - Coordinator-NASA trip for preservice science teachers, training and content development

- CISD 1999-2004
  - Junior High Science Teacher
  - Alternative Education Program: Instructor (grades 1-12), Program Development, Collaboration for area school districts utilizing CISD’s AEP Program
  - SPED: Facilitate resource and SPED for grades 7-12 serviced all subjects areas with a focus in math and science, ARD meetings, and IEP’s
  - BETA Sponsor
  - Student Council Sponsor
Professional Associations

- NASA Texas Space Grant Consortium Representative (2006-current)
  - University representative
  - Business meetings, bi-annual
  - Project reviewer
  - Annual reviewer of grant proposals: New Investigations, Higher Education Programs, K-12 Educational Programs
  - Scholarship reviews and promotion

- Professional Organizations
  - American Astronomical Society (AAS)
  - American Physical Society (APS)
  - ASCD-Association for Supervision and Curriculum Development
  - Association of Texas Professional Educators (ATPE)
  - Digistar Users Group (DUG)
  - International Planetarium Society (IPS)
  - National Science Teachers Association (NSTA)
  - Science Teachers Association of Texas (STAT)
  - NASA Texas Space Grant Consortium (TSGC)
  - Metroplex Technology Business Council

Awards and Publications

- Texas A&M Commerce President’s Meritorious Service Award 2011
- NASA Texas Space Grant Fellowship, 2010
- AESP Grant-Explorations of the Solar System 2010
- MASTA Grant, 2009-2010
- Texas Space Grant Fellowship, 2009
- AESP Grant-Lunar Explorations, 2009
- Texas Space Grant Fellowship, 2008
- TxCept Grant Recipient, 2004
PAMELA ANN HENDERSON
Adjunct Instructor, Department of Physics and Astronomy
Texas A&M-Commerce; P.O. Box 3011; Commerce, Texas 75429-3011
Phone: (903)-886-5488
E-Mail: Pamela.Henderson@tamuc.edu

Appointments:
2008 – present  Adjunct instructor, Department of Physics & Astronomy; Texas A&M-Commerce
2004-2007  Instructor, Department of Physics ; Texas A&M-Commerce
2000-2004  Instructor, Department of Biological, Earth & Environmental Sciences; Texas A&M –Commerce
1998-2000  Graduate Assistant, Department of Biological, Earth & Environmental Sciences; Texas A&M-Commerce; 18 graduate hours in biology
1995-1997  Graduate Assistant, Depart of Earth Sciences; Texas A&M-Commerce

Synergistic Activities:
Departmental advisor & mentor to pre service teacher
Chair of Nolan McWhirter Scholarship Committee
Member of Education Conference Committee
Member of Greater Texas Foundation Grant Committee
CAST mini grants
TxCETP faculty mentor
Faculty Advisor, Geological Society
Faculty Senate
Member of Academy for Educator Development

Biological & Earth Science Departmental Committees:  Education Curriculum Development; Facilities & Schedule Planning, Chair; Assessment
Curriculum Vita
Fall 2010

Instructor: Dale Loughmiller, Adjunct Professor
Academic Department: Physics

Address: Dale Loughmiller
690 20TH ST NE
Paris, Texas 75460-1419

Phone: 903-905-2248
E-Mail Address: daleloughmiller@mac.com

EDUCATION

Education:
Master of Science in Physics, Texas A&M University – Commerce, Commerce, Texas
May 2008

Master of Science in Educational Computing, Texas A&M University – Commerce, Commerce, Texas
August 2001

Bachelor of Science in Political Science, Texas A&M University – College Station, College Station, Texas
May 1993

EXPERIENCE

Fall 1997 – Spring 2001 - Teacher (Physics and Integrated Physics and Chemistry
Chisum High School, Paris Texas

September 2001 – December 2008 Consultant (Science and Technology)
Region VIII Education Service Center, Mount Pleasant, Texas

August 2002 – present
Northeast Texas Community College, Adjunct Instructor
Departments (Physics and Technology)

January 2009 – present
Director of Technology, Paris ISD, Paris Texas

August 2002 – present
Northeast Texas Community College, Adjunct Instructor
Departments (Physics and Technology)

September 2010 – present
Texas A&M University - Commerce, Adjunct Instructor
Departments (Physics)
Appendix B: Faculty Credential Inventory
Texas A&M University-Commerce  
Faculty Credential Inventory – Form 1

1. Date: 15 October 2012

2. Name: Carlos Bertulani  
3. CWID: 50028534  
4. College: □ CBE □ COEHS □ CHSSA ✓ CoSEA

5. Department: Physics & Astronomy

6. Primary Teaching Discipline: Physics & Astronomy

7. Degrees Earned Information

<table>
<thead>
<tr>
<th>Level</th>
<th>Type of Degree</th>
<th>Discipline</th>
<th>Year Awarded</th>
<th>Institution Awarding Degree</th>
</tr>
</thead>
<tbody>
<tr>
<td>7a. Doctorate Degree</td>
<td>Ph.D</td>
<td>Nuclear Physics</td>
<td>1987</td>
<td>University of Bonn, Germany</td>
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<tr>
<td>7b. Master's Degree</td>
<td>M.S.</td>
<td>Nuclear Physics</td>
<td>1983</td>
<td>Federal University of Rio de Janeiro, Brazil</td>
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<tr>
<td>7c. Undergraduate Degree</td>
<td>B.S.</td>
<td>Physics</td>
<td>1980</td>
<td>Federal University of Rio De Janeiro, Brazil</td>
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<td>7d. Other</td>
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8. Qualification Measure

<table>
<thead>
<tr>
<th>Discipline Prefix or Specific Course Faculty is Qualified to Teach (MATH, ENG, ART, PHYS 1401, etc.)</th>
<th>Course Level (Select one per line)</th>
<th>General education or baccalaureate courses: Bachelor's degree in the teaching discipline with a concentration in the teaching discipline (a minimum of 18 graduate semester hours in the teaching discipline).</th>
<th>Graduate and post-baccalaureate courses: Earned doctorate/terminal degree in the teaching discipline or a related discipline.</th>
<th>Graduate teaching assistants: Master's in the teaching discipline or 18 graduate semester hours in the teaching discipline, direct supervision by a faculty member experienced in the teaching discipline.</th>
<th>General education or baccalaureate courses: Bachelor's degree outside teaching discipline with other qualifications.</th>
<th>Graduate and post-baccalaureate courses: Earned doctorate/terminal degree outside teaching discipline with other qualifications.</th>
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</thead>
<tbody>
<tr>
<td>8a. PHYS</td>
<td>☑ UG □ Grad</td>
<td>☑</td>
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<td>□</td>
</tr>
<tr>
<td>8b. PHYS</td>
<td>□ UG ☑ Grad</td>
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<td>□</td>
</tr>
<tr>
<td>8c. ASTR</td>
<td>☑ UG □ Grad</td>
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<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>8d. IS</td>
<td>☑ UG □ Grad</td>
<td>☑</td>
<td>□</td>
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</tr>
<tr>
<td>8e.</td>
<td>□ UG □ Grad</td>
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<td>□</td>
<td>□</td>
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<td>□</td>
</tr>
<tr>
<td>8f.</td>
<td>□ UG □ Grad</td>
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<td>□</td>
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<td>□</td>
</tr>
</tbody>
</table>
9. Name: Carlos Bertulani  10. CWID: 50028534

11. Rank: ☑ Professor
           ☐ Associate Professor
           ☐ Assistant Professor
           ☐ Instructor
           ☐ Clinical Faculty
           ☐ Adjunct
           ☐ TA

12. Series: ☑ Tenured
           ☐ Tenure Track
           ☐ Professional Track
           ☐ Not Applicable

13. Graduate Faculty Status:
    ☑ Graduate Faculty Member
    ☐ Tenure Track
    ☐ Professional Track
    ☐ Not Applicable
    ☐ Tenure Track
    ☐ Clinical Faculty
    ☐ Adjunct
    ☐ TA

    (Approved by the Graduate Council)

    ☐ Not a member the Graduate Faculty

Complete the following sections only if faculty member does not hold a terminal degree in the teaching discipline

14. Undergraduate Courses – Related Degree(s)

<table>
<thead>
<tr>
<th>Prefix or Course</th>
<th>Academic Degree(s)</th>
<th>(Master's and Doctorate degrees, majors, institutions)</th>
</tr>
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15. Graduate Courses – Related Degree(s)

<table>
<thead>
<tr>
<th>Prefix or Course</th>
<th>Academic Degree(s)</th>
<th>(Doctorate/terminal degree, major, institution)</th>
</tr>
</thead>
</table>

16. Other Qualifications to Justify Instruction in Courses shown in Section, 8 and 14/15

<table>
<thead>
<tr>
<th>Prefix or Course</th>
<th>Description Summary</th>
<th>(# Related graduate hours, related experiences, certifications/licenses, publications etc.)</th>
</tr>
</thead>
</table>

Department Head (Verification of Credentials) Date

Dean of Graduate Studies (Verification of Graduate Faculty Status) Date

College Dean Date
Texas A&M University-Commerce  
Faculty Credential Inventory – Form 1

1. Date: 15 October 2012

2. Name: Anil Chourasia

3. CWID: 10129567

4. College: CoSEA

5. Department: Physics & Astronomy

6. Primary Teaching Discipline: Physics & Integrated Science

7. Degrees Earned Information

<table>
<thead>
<tr>
<th>Level</th>
<th>Type of Degree</th>
<th>Discipline</th>
<th>Year Awarded</th>
<th>Institution Awarding Degree</th>
</tr>
</thead>
<tbody>
<tr>
<td>7a. Doctorate Degree</td>
<td>PhD</td>
<td>Physics</td>
<td>1986</td>
<td>Nagpur University, India</td>
</tr>
<tr>
<td>7b. Master’s Degree</td>
<td>MS</td>
<td>Physics</td>
<td>1978</td>
<td>Nagpur University, India</td>
</tr>
<tr>
<td>7c. Undergraduate Degree</td>
<td>B.Sc.</td>
<td>Physics, Mathematics, Chemistry</td>
<td>1975</td>
<td>Nagpur University, India</td>
</tr>
<tr>
<td>7d. Other</td>
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</tr>
</tbody>
</table>

8. Qualification Measure

<table>
<thead>
<tr>
<th>Discipline Prefix or Specific Course Faculty is Qualified to Teach (MATH, ENG, ART, PHYS 1401, etc.)</th>
<th>Course Level (Select one per line)</th>
<th>General education or baccalaureate courses: Doctorate or master’s degree in the teaching discipline or a master’s degree with a concentration in the teaching discipline (a minimum of 72 graduate semester hours in the teaching discipline).</th>
<th>General education or baccalaureate courses: Doctorate or master’s degree in the teaching discipline or a master’s degree with a concentration in the teaching discipline (a minimum of 72 graduate semester hours in the teaching discipline)</th>
<th>Graduate teaching assistants: Master’s or 18 graduate semester hours in the teaching discipline, direct supervision by a faculty member experienced in the teaching discipline with other qualifications.</th>
<th>General education or baccalaureate courses: Doctorate or master’s degree outside teaching discipline with other qualifications.</th>
<th>Graduate and post-baccalaureate courses: Doctorate or master’s degree outside teaching discipline with other qualifications.</th>
</tr>
</thead>
<tbody>
<tr>
<td>8a. PHYS</td>
<td>☑ UG ☑ Grad</td>
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<tr>
<td>8b. PHYS</td>
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<tr>
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<td>8f.</td>
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</tbody>
</table>
9. Name: Anil Chourasia  
10. CWID: 10129567

11. Rank: ☑ Professor  
   □ Associate Professor  
   □ Assistant Professor  
   □ Instructor  
   □ Clinical Faculty  
   □ Adjunct  
   □ TA

12. Series: ☑ Tenured  
   □ Tenure Track  
   □ Professional Track  
   □ Not Applicable

13. Graduate Faculty Status:  
   ☑ Graduate Faculty Member  
   (Approved by the Graduate Council)
   □ Temporary Status  
   □ Not a member the Graduate Faculty

Complete the following sections only if faculty member does not hold a terminal degree in the teaching discipline

<table>
<thead>
<tr>
<th>14. Undergraduate Courses – Related Degree(s)</th>
<th>15. Graduate Courses – Related Degree(s)</th>
<th>16. Other Qualifications to Justify Instruction in Courses shown in Section, 8 and 14/15</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prefix or Course</td>
<td>Academic Degree(s) (Master's and Doctorate degrees, majors, institutions)</td>
<td>Prefix or Course</td>
</tr>
<tr>
<td></td>
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</tr>
</tbody>
</table>

Department Head (Verification of Credentials) Date

Dean of Graduate Studies (Verification of Graduate Faculty Status) Date

College Dean Date
Texas A&M University-Commerce  
*Faculty Credential Inventory – Form 1*

1. Date: 15 October 2012

2. Name: Bao-An Li  
3. CWID: 50013168  
4. College: □ CBE □ COEHS □ CHSSA ☑ CoSEA

5. Department: Physics & Astronomy  
6. Primary Teaching Discipline: Physics & Astronomy

### 7. Degrees Earned Information

<table>
<thead>
<tr>
<th>Level</th>
<th>Type of Degree (PhD, EdD, etc.)</th>
<th>Discipline</th>
<th>Year Awarded</th>
<th>Institution Awarding Degree</th>
</tr>
</thead>
<tbody>
<tr>
<td>7a. Doctorate Degree</td>
<td>Ph.D</td>
<td>Physics</td>
<td>1991</td>
<td>Michigan State University</td>
</tr>
<tr>
<td>7b. Master’s Degree</td>
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</tr>
<tr>
<td>7c. Undergraduate Degree</td>
<td>B.S.</td>
<td>Physics</td>
<td>1983</td>
<td>Lanzhou University, China</td>
</tr>
<tr>
<td>7d. Other</td>
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</tbody>
</table>

### 8. Qualification Measure

<table>
<thead>
<tr>
<th>Discipline Prefix or Specific Course Faculty is Qualified to Teach (MATH, ENG, ART, PHYS 1401, etc.)</th>
<th>Course Level</th>
<th>General education or baccalaureate courses: Doctorate or master’s degree in the teaching discipline or a related discipline with a minimum of 18 graduate semester hours in the teaching discipline.</th>
<th>Graduated with a doctorate/terminal degree in a related discipline.</th>
<th>Graduated with a master’s degree in the teaching discipline or at least 18 graduate semester hours in the teaching discipline.</th>
<th>Faculty is qualified to teach.</th>
</tr>
</thead>
<tbody>
<tr>
<td>8a.</td>
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<td>8b.</td>
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<tr>
<td>8d.</td>
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</tr>
</tbody>
</table>
9. Name: Bao-An Li  
10. CWID: 50013168

11. Rank: ☑ Professor
   - ☐ Associate Professor
   - ☐ Assistant Professor
   - ☐ Instructor
   - ☐ Clinical Faculty
   - ☐ Adjunct
   - ☐ TA

12. Series: ☑ Tenured
   - ☐ Tenure Track
   - ☐ Professional Track
   - ☐ Not Applicable

13. Graduate Faculty Status:
   - ☑ Graduate Faculty Member
     (Approved by the Graduate Council)
   - ☐ Temporary Status
   - ☐ Not a member the Graduate Faculty

Complete the following sections only if faculty member does not hold a terminal degree in the teaching discipline

<table>
<thead>
<tr>
<th>14. Undergraduate Courses – Related Degree(s)</th>
<th>15. Graduate Courses – Related Degree(s)</th>
<th>16. Other Qualifications to Justify Instruction in Courses shown in Section, 8 and 14/15</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prefix or Course</td>
<td>Academic Degree(s) (Master’s and Doctorate degrees, majors, institutions)</td>
<td>Prefix or Course</td>
</tr>
</tbody>
</table>

Department Head (Verification of Credentials) Date  
(Verification of Graduate Faculty Status) Date

Dean of Graduate Studies Date

College Dean Date
1. Date: 15 October 2012

2. Name: Kent Montgomery

3. CWID: 35233716

4. College: □ CBE □ COEHS □ CHSSA ☑ CoSEA

5. Department: Physics & Astronomy

6. Primary Teaching Discipline: Physics & Astronomy

7. Degrees Earned Information

<table>
<thead>
<tr>
<th>Level</th>
<th>Type of Degree (PhD, EdD, etc.)</th>
<th>Discipline</th>
<th>Year Awarded</th>
<th>Institution Awarding Degree</th>
</tr>
</thead>
<tbody>
<tr>
<td>7a. Doctorate Degree</td>
<td>Ph.D</td>
<td>Astronomy</td>
<td>1995</td>
<td>Boston University, Boston, MA</td>
</tr>
<tr>
<td>7b. Master’s Degree</td>
<td>M.S.</td>
<td>Astronomy</td>
<td>1990</td>
<td>San Diego State University, San Diego, CA.</td>
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<tr>
<td>7c. Undergraduate Degree</td>
<td>B.S.</td>
<td>Mathematics &amp; Physics</td>
<td>1987</td>
<td>Bozeman, MT</td>
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8. Qualification Measure

<table>
<thead>
<tr>
<th>Discipline Prefix or Specific Course</th>
<th>Course Level</th>
<th>General education or baccalaureate courses: Doctorate or master’s degree in the teaching discipline or master’s degree with a concentration in the teaching discipline.</th>
<th>Graduated and post-baccalaureate courses: Earned doctorate/terminal degree or even a concentration in the teaching discipline.</th>
<th>Graduate teaching assistants: Master’s in the teaching discipline or 18 graduate semester hours in the teaching discipline.</th>
<th>General education or baccalaureate courses: Doctorate or master’s degree outside teaching discipline.</th>
<th>General education or baccalaureate courses: Earned doctorate/terminal degree outside teaching discipline with other qualifications.</th>
</tr>
</thead>
<tbody>
<tr>
<td>8a. PHYS</td>
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</table>
9. Name: Kent Montgomery  
10. CWID: 35233716

11. Rank:  ☑ Professor  
           ☐ Associate Professor  
           ☐ Assistant Professor  
           ☐ Instructor  
           ☐ Clinical Faculty  
           ☐ Adjunct  
           ☐ TA

12. Series:  ☐ Tenured  
           ☐ Tenure Track  
           ☑ Professional Track  
           ☐ Not Applicable

13. Graduate Faculty Status:  
   ☑ Graduate Faculty Member  
   (Approved by the Graduate Council)  
   ☐ Temporary Status  
   ☐ Not a member the Graduate Faculty

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### Complete the following sections only if faculty member does not hold a terminal degree in the teaching discipline

<table>
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<tr>
<th>14. Undergraduate Courses – Related Degree(s)</th>
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</table>
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( Master’s and Doctorate degrees, majors, institutions) | Prefix or Course | Academic Degree(s)  
(Doctorate/terminal degree, major, institution) | Prefix or Course | Description Summary  
(# Related graduate hours, related experiences, certifications/licenses, publications etc.) |

---

Department Head (Verification of Credentials)  
Date

Dean of Graduate Studies  
(Verification of Graduate Faculty Status)  
Date

College Dean  
Date
1. Date: 15 October 2012

2. Name: William Newton

3. CWID: 50044116

4. College: □ CBE □ COEHS □ CHSSA ☑ CoSEA

5. Department: Physics & Astronomy

6. Primary Teaching Discipline: Integrated Science / Physics / Astronomy

7. Degrees Earned Information

<table>
<thead>
<tr>
<th>Level</th>
<th>Type of Degree (PhD, EdD, etc.)</th>
<th>Discipline</th>
<th>Year Awarded</th>
<th>Institution Awarding Degree</th>
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<td>Physics</td>
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<td>University of Oxford</td>
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8. Qualification Measure

<table>
<thead>
<tr>
<th>Discipline Prefix or Specific Course</th>
<th>Faculty is Qualified to Teach (MATH, ENG, ART, PHYS 1401, etc.)</th>
<th>Course Level (Select one per line)</th>
<th>General education or baccalaureate courses: Doctorate or master’s degree in the teaching discipline or a concentration in the teaching discipline with at least 18 graduate hours in the teaching discipline.</th>
<th>Graduate and post-baccalaureate courses: Earned doctorate/terminal degree in the teaching discipline or a related discipline.</th>
<th>Qualification Measure: 1. Graduate teaching assistants: Master’s in the teaching discipline or 18 graduate hours in the teaching discipline by a faculty member experienced in the teaching discipline.</th>
<th>General education or baccalaureate courses: Doctorate or master’s degree in a discipline outside the teaching discipline with other qualifications.</th>
<th>Graduate and post-baccalaureate courses: Earned doctorate/terminal degree outside the teaching discipline with other qualifications.</th>
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</table>
9. Name: William Newton  
10. CWID: 50044116

11. Rank:  
- □ Professor  
- □ Associate Professor  
- ☑ Assistant Professor  
- □ Instructor  
- □ Clinical Faculty  
- □ Adjunct  
- □ TA

12. Series:  
- □ Tenured  
- ☑ Tenure Track  
- □ Professional Track  
- □ Not Applicable

13. Graduate Faculty Status:  
- ☑ Graduate Faculty Member  
- (Approved by the Graduate Council)  
- □ Temporary Status  
- □ Not a member the Graduate Faculty

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### Complete the following sections only if faculty member does not hold a terminal degree in the teaching discipline

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<td>(Doctorate/terminal degree, major, institution)</td>
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Department Head (Verification of Credentials)  
Date

Dean of Graduate Studies (Verification of Graduate Faculty Status)  
Date

College Dean  
Date
1. Date: 15 October 2012

2. Name: Charles Rogers

3. CWID: 10023565

4. College: □ CBE □ COEHS □ CHSSA ☑ CoSEA

5. Department: Physics & Astronomy

6. Primary Teaching Discipline: Physics / Astronomy / Integrated Science

7. Degrees Earned Information

<table>
<thead>
<tr>
<th>Level</th>
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<th>Discipline</th>
<th>Year Awarded</th>
<th>Institution Awarding Degree</th>
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<tbody>
<tr>
<td>7a. Doctorate Degree</td>
<td>Ph.D</td>
<td>Physics</td>
<td>1973</td>
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<td>7b. Master's Degree</td>
<td>M.S.</td>
<td>Physics</td>
<td>1969</td>
<td>University of Arkansas, Fayetteville, Arkansas</td>
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<tr>
<td>7c. Undergraduate Degree</td>
<td>B.S.</td>
<td>Physics</td>
<td>1967</td>
<td>University of Arkansas, Fayetteville, Arkansas</td>
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8. Qualification Measure

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<th>Course Level (Select one per line)</th>
<th>General education or baccalaureate courses: Doctorate or master's degree in the teaching discipline.</th>
<th>Earned doctorate/terminal degree in the teaching discipline.</th>
<th>Graduate and post-baccalaureate courses: Doctorate in the teaching discipline.</th>
<th>General education or baccalaureate courses: Earned doctorate/terminal degree in a related discipline.</th>
<th>Graduate and post-baccalaureate courses: Doctorate outside teaching discipline with other qualifications.</th>
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</table>
9. Name: Charles Rogers  
10. CWID: 10023565

11. Rank: ☑ Professor  
   - Associate Professor
   - Assistant Professor
   - Instructor
   - Clinical Faculty
   - Adjunct
   - TA

12. Series: ☑ Tenured  
   - Tenure Track
   - Professional Track
   - Not Applicable

13. Graduate Faculty Status:
   - ☑ Graduate Faculty Member
     (Approved by the Graduate Council)
   - Temporary Status
   - Not a member the Graduate Faculty

Complete the following sections only if faculty member does not hold a terminal degree in the teaching discipline

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Department Head (Verification of Credentials)  
Date

Dean of Graduate Studies (Verification of Graduate Faculty Status)  
Date

College Dean  
Date
2. Name: Kurtis Williams
3. CWID: 50071166
4. College: □ CBE □ COEH □ CHSSA ☑ CoSEA
5. Department: Physics & Astronomy
6. Primary Teaching Discipline: Astronomy / Physics

7. Degrees Earned Information

<table>
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<tr>
<th>Level</th>
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<th>Institution Awarding Degree</th>
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<th>Graduate and post-baccalaureate courses: Earned doctorate/terminal degree in the teaching discipline or a related discipline.</th>
<th>Graduate teaching assistants: Master’s in the teaching discipline or 18 graduate semester hours in the teaching discipline by a faculty member experienced in the teaching discipline.</th>
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</table>
9. Name: Kurtis Williams  
10. CWID: 50071166

11. Rank: 
- ☐ Professor
- ☐ Associate Professor
- ☑ Assistant Professor
- ☐ Instructor
- ☐ Clinical Faculty
- ☐ Adjunct
- ☐ TA

12. Series: 
- ☐ Tenured
- ☑ Tenure Track
- ☐ Professional Track
- ☐ Not Applicable

13. Graduate Faculty Status: 
- ☑ Graduate Faculty Member
  (Approved by the Graduate Council)
- ☐ Temporary Status
- ☐ Not a member the Graduate Faculty

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<td>(# Related graduate hours, related experiences,</td>
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</table>

Department Head (Verification of Credentials)  
Dean of Graduate Studies (Verification of Graduate Faculty Status)  
College Dean
1. Date: 15 October 2012

2. Name: Matthew A. Wood

3. CWID: 50106866

4. College: □ CBE □ COEHS □ CHSSA ☑ CoSEA

5. Department: Physics & Astronomy

6. Primary Teaching Discipline: Physics & Astronomy

7. Degrees Earned Information

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<th>Discipline</th>
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<tbody>
<tr>
<td>7a. Doctorate Degree</td>
<td>Ph.D.</td>
<td>Astronomy</td>
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<td>7b. Master's Degree</td>
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<tr>
<td>7c. Undergraduate Degree</td>
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<td>Physics</td>
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</table>
9. Name: Matthew A. Wood  
10. CWID: 50106866

11. Rank:  ✔ Professor  
   - Associate Professor  
   - Assistant Professor  
   - Instructor  
   - Clinical Faculty  
   - Adjunct  
   - TA

12. Series:  ✔ Tenured  
   - Tenure Track  
   - Professional Track  
   - Not Applicable

13. Graduate Faculty Status:  ✔ Graduate Faculty Member  
   (Approved by the Graduate Council)  
   - Temporary Status  
   - Not a member the Graduate Faculty

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| | | | | | |

Department Head  
(Verification of Credentials)  
Date

Dean of Graduate Studies  
(Verification of Graduate Faculty Status)  
Date

College Dean  
Date
2. Name: Margaret Cheri Davis
3. CWID: 10059147
4. College: □ CBE □ COEHS □ CHSSA ☑ CoSEA
5. Department: Physics & Astronomy
6. Primary Teaching Discipline: Integrated Science

7. Degrees Earned Information

<table>
<thead>
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<th>Level</th>
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<th>Year Awarded</th>
<th>Institution Awarding Degree</th>
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<tr>
<td>7a. Doctorate Degree</td>
<td>EdD</td>
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<td>7b. Master’s Degree</td>
<td>MS</td>
<td>Broadfield Science-focus in physics</td>
<td>2005</td>
<td>Texas A&amp;M University-Commerce</td>
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<tr>
<td>7c. Undergraduate Degree</td>
<td>BS</td>
<td>Interdisciplinary Studies-focus in science</td>
<td>2004</td>
<td>Texas A&amp;M University-Commerce</td>
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<th>Course Level (Select one per line)</th>
<th>Qualification</th>
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<tbody>
<tr>
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<tr>
<td>8b.</td>
<td>□ UG □ Grad</td>
<td></td>
</tr>
<tr>
<td>8c.</td>
<td>□ UG □ Grad</td>
<td></td>
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<tr>
<td>8d.</td>
<td>□ UG □ Grad</td>
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<td>8e.</td>
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<td>8f.</td>
<td>□ UG □ Grad</td>
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</tbody>
</table>
9. Name: M. Cheri Davis  
10. CWID: 10059147

11. Rank:  
- [ ] Professor  
- [ ] Associate Professor  
- [ ] Assistant Professor  
- [ ] Instructor  
- [ ] Clinical Faculty  
- [X] Adjunct  
- [ ] TA

12. Series:  
- [ ] Tenured  
- [ ] Tenure Track  
- [ ] Professional Track  
- [X] Not Applicable

13. Graduate Faculty Status:  
- [ ] Graduate Faculty Member  
- [ ] Temporary Status  
- [X] Not a member the Graduate Faculty

Complete the following sections only if faculty member does not hold a terminal degree in the teaching discipline

<table>
<thead>
<tr>
<th>14. Undergraduate Courses – Related Degree(s)</th>
<th>15. Graduate Courses – Related Degree(s)</th>
<th>16. Other Qualifications to Justify Instruction in Courses shown in Section, 8 and 14/15 EdD-Physics and Astronomy</th>
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<tr>
<td>Prefix or Course</td>
<td>Academic Degree(s) (Master’s and Doctorate degrees, majors, institutions)</td>
<td>Prefix or Course</td>
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<td>EdD</td>
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<td>M.S.</td>
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Department Head *(Verification of Credentials)*  

Date

Dean of Graduate Studies *(Verification of Graduate Faculty Status)*  

Date

College Dean  

Date
Texas A&M University-Commerce
Faculty Credential Inventory Supplemental Qualifications – Form 2

1. Date: 10/15/2012

2. Name: M. Cheri Davis

3. CWID: 10059147

4. College: □ CBE   □ COEHS   □ CHSSA   ✓ CoSEA

5. Department: Physics & Astronomy

6. Rank: □ Professor
         □ Associate Professor
         □ Assistant Professor
         □ Instructor
         □ Clinical Faculty
         ✓ Adjunct
         □ TA

7. Series: □ Tenured
           □ Tenure Track
           □ Professional Track
           ✓ Not Applicable

8. Education – Graduate Degrees (official transcripts for all graduate degrees required)

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9. List Graduate Hours in the Teaching Discipline for Courses listed in Table 14/15 on the FCI. (Official transcripts required)

<table>
<thead>
<tr>
<th>Course Number</th>
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<td>Modern Physics</td>
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<td>Physics Discipline</td>
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<td>Astronomical Imaging</td>
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<td>Astronomical Research</td>
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<td>CHEM 521</td>
<td>Thermodynamics</td>
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<td>CHEM 536</td>
<td>Organometallic Chem</td>
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<td>ENVS 589</td>
<td>Plant Biology</td>
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<tr>
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<td>Inquiry Science Camp</td>
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<tr>
<td>ELED 558</td>
<td>Sci Curriculum Grades 1-8</td>
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10. List Graduate Hours Related to Teaching Discipline for Courses listed in Table 14/15 on the FCI. (Official transcripts required)

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<td>HIED 528</td>
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<td>Adv Pract Supervision &amp; Curr</td>
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<td>Curric Dev HIED</td>
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<td>HIED 697</td>
<td>Publishing in HIED</td>
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<td>HIED 617</td>
<td>Stat Proc for Edu &amp; Research</td>
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<td>COUN 613</td>
<td>Adv Statistical Technique</td>
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<td>HIED 656</td>
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<td>HIED 710</td>
<td>Research Colloquium</td>
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</table>

11. **Exceptional scholarly or creative activities (documentation required)**
Texas Space Grant Representative (TSGC)
TSGC Scholarship Committee
TSGC Grant Reviewer
Columbia Crew Scholarship Committee TAMU-C
Search Committee-Mathematics

12. **Exceptional professional experience (documentation required)**

Construction of TAMUC observatory
Consulting for construction of new planetarium
Co-coordinator for APS-Texas Section Conference
Organizing committee for 11th International conference for Nucleus-Nucleus Collisions
American Astronomical Society (AAS)
American Physical Society (APS)
ASCD-Association for Supervision and Curriculum Development
Association of Texas Professional Educators (ATPE)
Digistar Users Group (DUG)
International Planetarium Society (IPS)
National Science Teachers Association (NSTA)
Science Teachers Association of Texas (STAT)
NASA Texas Space Grant Consortium (TSGC)
Metroplex Technology Business Council

13. **Certifications, Licenses, Awards, & Recognitions (documentation required)**

Texas A&M Commerce President’s Meritorious Service Award 2011
NASA Texas Space Grant Fellowship, 2010
AESP Grant-Explorations of the Solar System 2010
MASTA Grant, 2009-2010
Texas Space Grant Fellowship, 2009
AESP Grant-Lunar Explorations, 2009
Texas Space Grant Fellowship, 2008
TxCept Grant Recipient, 2004
14. **Other Exceptional Qualifications (documentation required)**

   Please see attached CV

<table>
<thead>
<tr>
<th>Department Head <em>(Verification of Credentials)</em></th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dean of Graduate Studies <em>(Verification of Graduate Faculty Status)</em></td>
<td>Date</td>
</tr>
<tr>
<td>College Dean</td>
<td>Date</td>
</tr>
</tbody>
</table>
Texas A&M University-Commerce  
*Faculty Credential Inventory – Form 1*

1. Date: Oct. 15, 2012

2. Name: Dale Loughmiller

3. CWID: 10095384

4. College: ☑ CBE  ☐ COEHS  ☐ CHSSA  ☑ CoSEA

5. Department: Physics & Astronomy

6. Primary Teaching Discipline: Integrated Science

7. Degrees Earned Information

<table>
<thead>
<tr>
<th>Level</th>
<th>Type of Degree (PhD, EdD, etc.)</th>
<th>Discipline</th>
<th>Year Awarded</th>
<th>Institution Awarding Degree</th>
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<td></td>
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8. Qualification Measure

<table>
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<th>Course Level (Select one per line)</th>
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<th>Graduate and post-baccalaureate courses: Earned doctorate/terminal degree in the teaching discipline or a related discipline.</th>
<th>Graduate teaching assistants: Master's in the teaching discipline or 18 graduate semester hours in the teaching discipline by a faculty member experienced in the teaching discipline.</th>
<th>General education or baccalaureate courses: Doctorate or master's degree outside the teaching discipline with other qualifications.</th>
<th>Graduate and post-baccalaureate courses: Earned doctorate/terminal degree outside the teaching discipline with other qualifications.</th>
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</thead>
<tbody>
<tr>
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<td>☐</td>
<td>☐</td>
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<td>☐</td>
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<tr>
<td>8b.</td>
<td>☐ UG ☐ Grad</td>
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<td>☐</td>
<td>☐</td>
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<td>8f.</td>
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<td>☐</td>
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</table>
Name: Dale Loughmiller  
CWID: 10095384

9. Name: Dale Loughmiller  
10. CWID: 10095384

11. Rank:  
☐ Professor  
☐ Associate Professor  
☐ Assistant Professor  
☐ Instructor  
☐ Clinical Faculty  
☒ Adjunct  
☐ TA

12. Series:  
☐ Tenured  
☐ Tenure Track  
☐ Professional Track  
☒ Not Applicable

13. Graduate Faculty Status:  
☐ Graduate Faculty Member  
(Approved by the Graduate Council)  
☐ Temporary Status  
☒ Not a member the Graduate Faculty

Complete the following sections only if faculty member does not hold a terminal degree in the teaching discipline

<table>
<thead>
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<td>Academic Degree(s) (Master's and Doctorate degrees, majors, institutions)</td>
<td>Prefix or Course</td>
</tr>
</tbody>
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| IS              | MS Physics, TAMU-Commerce  
MS Edu. Computing, TAMU-Commerce | | | |

Department Head (Verification of Credentials)  
Date

Dean of Graduate Studies (Verification of Graduate Faculty Status)  
Date

College Dean  
Date
Texas A&M University-Commerce
Faculty Credential Inventory Supplemental Qualifications – Form 2

Documentation of other qualifications and accomplishments for faculty lacking a terminal degree in a teaching discipline.

1. Date: 15 October 2012

2. Name: Dale L. Loughmiller

3. CWID: 10095384

4. College: □ CBE  □ COEHS  □ CHSSA  ✓ CoSEA

5. Department: Physics and Astronomy

6. Rank: □ Professor
    □ Associate Professor
    □ Assistant Professor
    □ Instructor
    □ Clinical Faculty
    ✓ Adjunct
    □ TA

7. Series: □ Tenured
          □ Tenure Track
          □ Professional Track
          ✓ Not Applicable

8. Education – Graduate Degrees (official transcripts for all graduate degrees required)

<table>
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<th>Degree</th>
<th>Major</th>
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9. List Graduate Hours in the Teaching Discipline for Courses listed in Table 14/15 on the FCI.
(Official transcripts required)

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<td>PHYS 526</td>
<td>Modern Physics</td>
<td>Texas A&amp;M University - Commerce</td>
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<tr>
<td>PHYS 597</td>
<td>Spec. Topics: Global Sciences</td>
<td>Texas A&amp;M University - Commerce</td>
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<td>PHYS 597</td>
<td>Spec. Topics: Nuclear Astrophysics</td>
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<td>PHYS 523</td>
<td>Electricity and Magnetism for Tchrs</td>
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<td>Ind. Studies in Space Sciences</td>
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10. List Graduate Hours Related to Teaching Discipline for Courses listed in Table 14/15 on the FCI.
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<td>Comptr-Assted Instr Education</td>
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<td>ETEC 624</td>
<td>Computer Operating Systems</td>
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</table>
11. Exceptional scholarly or creative activities (documentation required)

12. Exceptional professional experience (documentation required)

13. Certifications, Licenses, Awards, & Recognitions (documentation required)

14. Other Exceptional Qualifications (documentation required)

Department Head (Verification of Credentials)  Date  Dean of Graduate Studies  Date
(Verification of Graduate Faculty Status)

College Dean  Date
Texas A&M University-Commerce  
Faculty Credential Inventory – Form 1

1. Date: 10/16/2012

2. Name: John L Hickman

3. CWID: 50013643

4. College: □ CBE  □ COEHS  □ CHSSA  ☑ CoSEA

5. Department: Physics and Astronomy

6. Primary Teaching Discipline: Integrated Science

7. Degrees Earned Information

<table>
<thead>
<tr>
<th>Level</th>
<th>Type of Degree (PhD, EdD, etc.)</th>
<th>Discipline</th>
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<td>7b. Master’s Degree</td>
<td>M.S.</td>
<td>Physics</td>
<td>2010</td>
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8. Qualification Measure

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<td>Graduate and post- baccalaureate courses: Master’s in the teaching discipline or 18 graduate semester hours in the teaching discipline.</td>
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<tr>
<td>8a. IS</td>
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<td>☑ UG ☑ Grad</td>
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<tr>
<td>8f.</td>
<td>☑ UG ☑ Grad</td>
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</table>
9. Name: John L. Hickman  
10. CWID: 50013643

11. Rank:  
- [ ] Professor
- [ ] Associate Professor
- [ ] Assistant Professor
- [ ] Instructor
- [ ] Clinical Faculty
- [ ] Adjunct
- [x] TA

12. Series:  
- [ ] Tenured
- [ ] Tenure Track
- [ ] Professional Track
- [x] Not Applicable

13. Graduate Faculty Status:  
- [ ] Graduate Faculty Member
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- [x] Not a member the Graduate Faculty

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<tr>
<td><strong>Prefix or Course</strong></td>
<td><strong>Academic Degree(s)</strong></td>
<td><strong>Prefix or Course</strong></td>
</tr>
<tr>
<td>IS</td>
<td>M.S. Physics TAMUC</td>
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</tr>
</tbody>
</table>

Department Head *(Verification of Credentials)* Date  
Dean of Graduate Studies *(Verification of Graduate Faculty Status)* Date  

College Dean Date  

Texas A&M University-Commerce

Faculty Credential Inventory Supplemental Qualifications – Form 2

Documentation of other qualifications and accomplishments for faculty lacking a terminal degree in a teaching discipline.

1. Date: 10/16/2012

2. Name: John L. Hickman

3. CWID: 50013643

4. College: □ CBE □ COEHS □ CHSSA ✔ CoSEA

5. Department: Physics and Astronomy

6. Rank:
   □ Professor
   □ Associate Professor
   □ Assistant Professor
   □ Instructor
   □ Clinical Faculty
   ✔ Adjunct
   □ TA

7. Series:
   □ Tenured
   □ Tenure Track
   □ Professional Track
   ✔ Not Applicable

8. Education – Graduate Degrees (official transcripts for all graduate degrees required)

<table>
<thead>
<tr>
<th>Degree</th>
<th>Major</th>
<th>Institutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>M.S.</td>
<td>Physics</td>
<td>Texas A&amp;M University - Commerce</td>
</tr>
</tbody>
</table>

9. List Graduate Hours in the Teaching Discipline for Courses listed in Table 14/15 on the FCI. (Official transcripts required)

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Institutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 501</td>
<td>Graduate Seminar</td>
<td>Texas A&amp;M University - Commerce</td>
</tr>
<tr>
<td>PHYS 517</td>
<td>Principles of Mathematical Physics</td>
<td>Texas A&amp;M University - Commerce</td>
</tr>
<tr>
<td>PHYS 523</td>
<td>Advanced Atomic Physics</td>
<td>Texas A&amp;M University - Commerce</td>
</tr>
<tr>
<td>PHYS 597</td>
<td>Sci Computing &amp; Visualization</td>
<td>Texas A&amp;M University - Commerce</td>
</tr>
<tr>
<td>PHYS 526</td>
<td>Modern Physics</td>
<td>Texas A&amp;M University - Commerce</td>
</tr>
<tr>
<td>PHYS 552</td>
<td>Advanced Micro Electronics</td>
<td>Texas A&amp;M University - Commerce</td>
</tr>
<tr>
<td>PHYS 511</td>
<td>Intro Theoretical Mechanics</td>
<td>Texas A&amp;M University - Commerce</td>
</tr>
<tr>
<td>PHYS 520</td>
<td>Intro Quantum Mechanics</td>
<td>Texas A&amp;M University - Commerce</td>
</tr>
<tr>
<td>PHYS 550</td>
<td>Nuclear Physics</td>
<td>Texas A&amp;M University - Commerce</td>
</tr>
</tbody>
</table>

10. List Graduate Hours Related to Teaching Discipline for Courses listed in Table 14/15 on the FCI. (Official transcripts required)

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<thead>
<tr>
<th>Course Number</th>
<th>Title</th>
<th>Institutions</th>
</tr>
</thead>
<tbody>
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<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
11. Exceptional scholarly or creative activities (documentation required)

12. Exceptional professional experience (documentation required)

Two (2) years integrated science teaching experience.

13. Certifications, Licenses, Awards, & Recognitions (documentation required)

14. Other Exceptional Qualifications (documentation required)

Department Head (Verification of Credentials)    Date

Dean of Graduate Studies (Verification of Graduate Faculty Status)    Date

College Dean    Date
1. Date: 10/16/2012

2. Name: Pamela A. Henderson

3. CWID: 10155080

4. College: CBE COEHS CHSSA CoSEA

5. Department: Physics and Astronomy

6. Primary Teaching Discipline: Integrated Science

7. Degrees Earned Information

<table>
<thead>
<tr>
<th>Level</th>
<th>Type of Degree (PhD, EdD, etc.)</th>
<th>Discipline</th>
<th>Year Awarded</th>
<th>Institution Awarding Degree</th>
</tr>
</thead>
<tbody>
<tr>
<td>7a. Doctorate Degree</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7b. Master’s Degree</td>
<td></td>
<td>M.S. Earth Sciences</td>
<td>1997</td>
<td>Texas A&amp;M University - Commerce</td>
</tr>
<tr>
<td>7c. Undergraduate Degree</td>
<td></td>
<td>B.S. Earth Sciences</td>
<td>1995</td>
<td>Texas A&amp;M University - Commerce</td>
</tr>
<tr>
<td>7d. Other</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

8. Qualification Measure

<table>
<thead>
<tr>
<th>Discipline Prefix or Specific Course Faculty is Qualified to Teach (MATH, ENG, ART, PHYS 1401, etc.)</th>
<th>Course Level (Select one per line)</th>
<th>Qualification</th>
</tr>
</thead>
<tbody>
<tr>
<td>General education or baccalaureate courses: Doctorate or master’s degree in the teaching discipline or master’s degree with a concentration in the teaching discipline (a minimum of 18 graduate semester hours in the teaching discipline).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>General education or baccalaureate courses: Earned doctorate/terminal degree in the teaching discipline or a related discipline.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>General education or baccalaureate courses: Master’s in the teaching discipline or 18 graduate semester hours in the teaching discipline supervised by a faculty member experienced in the teaching discipline.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>General education or baccalaureate courses: Doctorate outside teaching discipline with other qualifications.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>General education or baccalaureate courses: Earned doctorate/terminal degree outside teaching discipline with other qualifications.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

8a. IS

- UG
- Grad

8b.

- UG
- Grad

8c.

- UG
- Grad

8d.

- UG
- Grad

8e.

- UG
- Grad

8f.

- UG
- Grad
9. Name: Pamela A. Henderson  
10. CWID: 10155080

11. Rank:  
- [ ] Professor  
- [x] Tenured
- [ ] Associate Professor  
- [ ] Tenure Track
- [ ] Assistant Professor  
- [ ] Professional Track
- [ ] Instructor  
- [ ] Not Applicable
- [x] Clinical Faculty
- [ ] Adjunct
- [ ] TA

12. Series:  
- [ ] Tenured
- [ ] Tenure Track
- [ ] Professional Track
- [x] Not Applicable

13. Graduate Faculty Status:  
- [ ] Graduate Faculty Member  
- (Approved by the Graduate Council)
- [ ] Temporary Status
- [x] Not a member the Graduate Faculty

---

**Complete the following sections only if faculty member does not hold a terminal degree in the teaching discipline**

<table>
<thead>
<tr>
<th>14. Undergraduate Courses – Related Degree(s)</th>
<th>15. Graduate Courses – Related Degree(s)</th>
<th>16. Other Qualifications to Justify Instruction in Courses shown in Section, 8 and 14/15</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prefix or Course</td>
<td>Academic Degree(s)</td>
<td>Prefix or Course</td>
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<tr>
<td>IS</td>
<td>M.S. Earth Sciences, TAMU-Commerce</td>
<td></td>
</tr>
</tbody>
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Department Head *(Verification of Credentials)*  
Date

Dean of Graduate Studies *(Verification of Graduate Faculty Status)*  
Date

College Dean  
Date
Texas A&M University-Commerce
Faculty Credential Inventory Supplemental Qualifications – Form 2

Documentation of other qualifications and accomplishments for faculty lacking a terminal degree in a teaching discipline.

1. Date: 15 October 2012

2. Name: Pamela Henderson

3. CVID: 10155080

4. College: □ CBE  □ COEHS  □ CHSSA  ✓ CoSEA

5. Department: Physics & Astronomy

6. Rank: □ Professor
   □ Associate Professor
   □ Assistant Professor
   □ Instructor
   □ Clinical Faculty
   ✓ Adjunct
   □ TA

7. Series: □ Tenured
   □ Tenure Track
   □ Professional Track
   ✓ Not Applicable

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<tr>
<td>MS</td>
<td>Earth Sciences</td>
<td>Texas A&amp;M University-Commerce</td>
</tr>
<tr>
<td>BS</td>
<td>Earth Sciences</td>
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10. List Graduate Hours Related to Teaching Discipline for Courses listed in Table 14/15 on the FCI. (Official transcripts required)

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<th>Title</th>
<th>Institutions</th>
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</thead>
<tbody>
<tr>
<td>ESCI 314</td>
<td>Weather and Climate</td>
<td>Texas A&amp;M University-Commerce</td>
</tr>
<tr>
<td>ESCI 589</td>
<td>Ind Stud.: Earth Science Research</td>
<td>Texas A&amp;M University-Commerce</td>
</tr>
<tr>
<td>ESCI 510</td>
<td>Earth: Origin and History</td>
<td>Texas A&amp;M University-Commerce</td>
</tr>
<tr>
<td>ESCI 555</td>
<td>Sel Topics Oceanography</td>
<td>Texas A&amp;M University-Commerce</td>
</tr>
<tr>
<td>ESCI 597</td>
<td>Spec. Topics: Field Geology</td>
<td>Texas A&amp;M University-Commerce</td>
</tr>
<tr>
<td>ESCI 529</td>
<td>Science Workshop</td>
<td>Texas A&amp;M University-Commerce</td>
</tr>
<tr>
<td>ESCI 572</td>
<td>Rocks &amp; Minerals</td>
<td>Texas A&amp;M University-Commerce</td>
</tr>
<tr>
<td>ESCI 314</td>
<td>Weather and Climate</td>
<td>Texas A&amp;M University-Commerce</td>
</tr>
<tr>
<td>ESCI 589</td>
<td>Ind Stud.: Earth Science Research</td>
<td>Texas A&amp;M University-Commerce</td>
</tr>
<tr>
<td>ESCI 595</td>
<td>Research Lit and Techniques</td>
<td>Texas A&amp;M University-Commerce</td>
</tr>
<tr>
<td>ESCI 597</td>
<td>Sp. Topics: Research Geosciences</td>
<td>Texas A&amp;M University-Commerce</td>
</tr>
</tbody>
</table>
11. Exceptional scholarly or creative activities (documentation required)

12. Exceptional professional experience (documentation required)
   Has taught Integrated Science courses for 3 years.

13. Certifications, Licenses, Awards, & Recognitions (documentation required)

14. Other Exceptional Qualifications (documentation required)

| Department Head (Verification of Credentials) | Date |
| Dean of Graduate Studies (Verification of Graduate Faculty Status) | Date |

| College Dean | Date |