

Curriculum Vitae

Jorge A. Lopez

SUMMARY

CONTACT

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- Web sites:
 - Academics: <http://jorgelopez.utep.edu/JorgePTR/Jorge.htm>
 - Activities: <http://wiki.utep.edu/display/~jorgelopez/Activities>
 - Writings: <http://jorgelopez.utep.edu/escritos/Jorge.html>

BACKGROUND

- BS and MS degrees in physics from the University of Texas at El Paso and a Ph.D. from Texas A&M University
- Postdoctoral experience at the Niels Bohr Institute and Lawrence Berkeley Lab.
- Academic experience for over 20 years, mostly at the University of Texas at El Paso, as professor at all levels.

ACADEMIC SERVICE

- Served as the Chair of the Physics Department from 6/2001 to 12/2008.
- Served as Assistant Dean of the College of Science from 1999 to 2001.
- Has been in countless academic committees and leadership positions, such as graduate advisor, coordinator of the Masters in Science in Interdisciplinary Studies, coordinator of the Distance-Learning MS Physics Program, organizer of the Physics Summer Research Program, etc.

PROFESSIONAL SERVICE

- Member of The American Physical Society, National Society of Hispanic Physicists and others.
- Has served in numerous boards and committees for The American Association of Physics Teachers, Society for the Advancement of Chicanos and Native Americans, Society of Mexican American Engineers and Scientists, as well as many Federal Agencies, such as NSF, NASA, etc.
- Reviewer for Professional Journals such as the Physical Review, Rev. Mex. Fisica, and others, for Standardized exams such as the GRE, College Board Advanced Placement, College Board's College Level Examination (CLEP) Program, and for publishing companies such as McGraw Hill, 2011, Cummings, John Wiley and Sons., Wm. C. Brown Publisher and others.
- Advisor for Universidad Catolica de la Santisima Concepcion (Chile), Texas A&M - Commerce, Universidad Playa Ancha (Chile), University of Texas Brownsville, Universidad Autónoma de Cd. Juárez (Mexico), among others.

OUTREACH

- National leader, cofounder of the National Society of Hispanic Physicists.
- Has 34 interviews in radio, TV and newspapers, delivered 31 general audience presentations, written 34 general audience publications
- Has participated and organized 77 outreach activities.

TEACHING

- Has taught 19 different physics courses at all levels.
- Has directed thesis work of one Ph.D. student, 24 MS students and one BS student and has supervised 31 undergraduate students in research projects.
- Has been a member in 28 MS thesis and 13 Ph.D. dissertation committees.
- Has developed 27 items for course curricula improvement and teaching material.

RESEARCH

- Specializes in nuclear physics, but has studied materials, science education and other areas including the social sciences.
- Has written three books, edited two books, and written 7 chapters and articles in books, 74 in journal publications, 41 in conference proceedings, as well as 14 in electronic journals and unpublished articles. .
- Has delivered 62 presentations in national and international meetings and 78 in seminars and colloquia.
- Has organized 7 national, regional and local conferences, has chaired 17 sessions in conferences, and sits in 15 international advisory boards of conferences.

GRANTS AND CONTRACTS

- Dr. Lopez has been the PI and co-PI in 106 grant proposals for research, education and outreach activities.
- A total of 38 proposals have been funded for over \$3,700,000.

AWARDS AND HONORS

- Fellow of the American Physical Society (2007), 2009 Hyer Award of the TS-American Physical Society, MAES 2010 Outstanding MAESTro Award, SHPE 2011 Educator of the year, Rho-Sigma-Tau Schumaker Professor by UTEP, APS Centennial Speaker by the American Physical Society.
- Has received 15 awards for research and education.
- Dr. Lopez's students have received 10 awards while being under his supervision.
- Elected to Corresponding member of the Mexican Academy of Sciences in 2012.

REFERENCES

- See list at the end of this document.

BACKGROUND

Dr. Lopez grew up in the El Paso/Juarez area in the US/Mexico border. While he and his family opted to live in Juarez, his family worked for over 40 years at a Levi Strauss plant in El Paso (sewing jeans you probably wore if you are over 30). After completing basic education in Juarez, he earned BS and MS degrees at the University of Texas at El Paso, continuing afterwards at Texas A&M University for Ph.D. studies. Graduating in 1986 with highest honors and earning the Best Thesis Award, he went to the prestigious Niels Bohr Institute and Lawrence Berkeley Lab for postdoctoral stays. After a brief stint at CalPoly in San Luis Obispo, he returned to his alma mater in 1990 where he has been Assistant, Associate and Professor, as well as Associate Dean and Department Chair.

EDUCATION

- B.S. Physics, 5/1977, University of Texas at El Paso, El Paso, Texas, UTEP scholarship "Good Neighbor", awarded from September 1975 to May 1977.
- M.S. Physics, 8/1979, University of Texas at El Paso, El Paso, Texas, thesis advisor: Dr. E. A. Dean, thesis: "Elastic constants of polycrystalline ceramics", 8/1979
- Ph.D. Physics, Texas A&M University, College Station, Texas, Physics, Ph.D., dissertation advisor: Dr. P. Siemens, dissertation: "The quark gluon plasma in linear response", graduate scholarship awarded by Conacyt-Mexico from September 1980 to May 1983.

GRADUATE APPOINTMENTS

- Cyclotron Institute, Texas A&M University, Texas, Graduate Research Assistant, 1981-1985.
- Physics Department, Texas A&M University, Graduate Teaching Assistant, 1979-1981.
- Physics Department, University of Texas at El Paso, Graduate Teaching Assistant, 1977- 1979..

POSTDOCTORAL APPOINTMENTS

- The Niels Bohr Institute, University of Copenhagen, Copenhagen, Denmark, Physics, supervisor: Dr. Jakob Bondorf, from 10/1985-8/1987.
- Lawrence Berkeley National Lab., Nuclear Theory, Nuclear Science Division, Berkeley, California, supervisor: Dr. Jørgen Randrup, 9/1987-8/1989.

ACADEMIC APPOINTMENTS

- Assistant Professor, Physics Department, CalPoly State University, 1989-1990.
- Assistant Professor, Physics Department, Univ. of Texas at El Paso, 1990-1993.
- Associate Professor, Physics Department, Univ. of Texas at El Paso, 1994-2000.
- Professor, Physics Department, Univ. of Texas at El Paso, from 9/2000-present.

ACADEMIC SERVICE

Dr. Lopez has been Chair of the Department of Physics and Associate Dean of the College of Science of the University of Texas at El Paso. He was responsible for reconstructing the Physics Department hiring 11 new faculty in a short period of time (2001-2005), played key roles in establishing bridge positions with national labs, increasing substantially the number of Hispanic and female faculty, and diversifying the Department into new research areas such as astronomy and medical physics, among other achievements.

SYNERGISTIC ACTIVITIES

- Reconstruction of UTEP's Physics Department, from 2001 to 2005, hiring 11 new faculty in several areas.
- Support of the creation of the interdisciplinary Ph.D. program in Computational Science with the Department of Mathematical Sciences and several other departments from the College of Engineering.
- Creator of the Distance-Learning MS program with UT Brownsville to support an MS program in Brownsville.
- Increased Hispanic faculty in the Physics Department from three to six during his Chairmanship.
- Increased female faculty in the Physics Department from one to four during his Chairmanship.
- Played essential role in obtaining bridge positions supported at 50% from The Jefferson National Lab and McDonald Observatory both at The University of Texas at El Paso and at New Mexico State University.
- Played essential role in obtaining a new minority faculty position from the University administrators.
- Help enlarge the service to education majors from, approximately, 100 students per semester to 400.
- Established physical science labs in 8 elementary schools in El Paso to teach education majors.
- Obtained funds to initiate growth in the area of Health/Medical physics.
- Increased graduate enrollment through targeted recruitment techniques.
- Brought renowned scientists to campus, including Nobel Prize winners, Leon Lederman and Murray Gell-Mann.
- Organized the Fall meeting of the Texas Section of the American Physical Society to El Paso in 1998 and supported bringing it again in 2008.

ADMINISTRATIVE POSITIONS

- Chair, Physics Department, University of Texas at El Paso, 2001 to 2008.
- Assistant Dean, College of Science, University of Texas at El Paso, 1999 to 2001, in charge of:
 - Academic Programs
 - MS in Interdisciplinary Studies
 - Tenure and promotion
 - College course curricula
 - Undergraduate Curriculum Committee
 - Web development
 - College Advisory Board
 - College course catalog
 - Recruitment and Admissions
 - Faculty search committees
 - Whatever else was needed.

DEPARTMENTAL SERVICE

- Graduate Advisor, Physics Department, 2001 to 2007.
- Coordinator, Masters in Science in Interdisciplinary Studies, 2000 to 2001.
- Coordinator, Distance-Learning M.S. Physics Program with UT Brownsville, 1998-2002.
- Physics Liaison, NASA Network Resource and Training Sites grant. 1995-1997.
- Organizer, Physics Summer Research Program, with 16 participants, 1995.
- Advisor, Society of Physics Students, 1993-1997
- Participant, AMP Summer Bridge Program, Summer 1995.
- Search Committee for CEBAF position, 1995 to 1997.
- Advisor of UTEP's Society of Physics Students, 1993-1995.
- Representative of the Physics Department to the Library, 1993-1995.

UNIVERSITY COMMITTEES

- Global Task Force, 2012
- Teaching Effectiveness Committee, 2010-2013.
- Search Committee Computational Science Faculty Position, College of Science, 2008 –2009.
- Credit Transfer Workgroup, "Building International Higher Education on the U.S.-Mexico Border", 04-05.
- Tenure and Promotion Committee, College of Science, 2004-2006
- Tenure and Promotion Committee, Coll. of Ed., 2004.
- Office of International Programs, 1999.
- Search Committee for Chair of Physics Dept., 1999.
- VPRSP Search Advisory Committee, 1997 to 1998.
- UTEP Legacy Campaign, 1997.
- Faculty Senate Research Committee, 1996- 1999.
- Provost/VPAA Search Advisory Committee, 95-96
- College Science Freshman Orientation Comm, 1995.
- Self-Study Physics Committee, 1995.
- Health Professions Advisory Committee, 1995.
- Self-Study Advisory Committee, 1994-1996.
- Faculty Senate Library Committee, 1994 to 1995.
- Search Committee, Health Physics position, 94-95.
- Local Organizing Committee, 1995 SACNAS Conf.
- SACS Advisory Committee, 1994-1995.
 - SACS Library Committee, 1994-1995.
 - UTEP Self-Study Steering Committee, 94-96.
 - Self-Study Library & Learning Resources, 94-96.
- 1995 SACNAS Conference, Local Organizing Committee.
- Model Institution of Excellence: Coordinating Group, 1994-1995, Advisory Committee, 94-95, Physics Committee, 1994, Task Force 6.
- "Solar Trek", College of Science, 1994.
- Faculty Senate Library Committee, 1993 - 1995.
- Search Committee for NMSU's Nuclear Physics position, for the Physics Department of New Mexico State University and CEBAF, 1995.
- Member of search Committee for Nuclear Physics position, for the Physics Department of New Mexico State Univ. and CEBAF, 1994.
- Member, Local Organizing Committee of the Second SC-Cosmic Student Conference on Computational Sciences and Engineering, funded by NSF's Center for research on Parallel Computation, El Paso, 11/25-27, 1996.
- Participant, "Block II Perceptions from the Field Experiment at Marian Manor Elementary School", UTEP's PETE program, El Paso, TX, 11/10/2000.
- Participant, Science Education and Scientific Literacy Conference, Office of Science and technology Policy. UTEP, May 4, 1995.

PROFESSIONAL SERVICE

Dr. Lopez is a member of several professional organizations and has occupied leadership positions in The American Physical Society (Chair, Committee on Minorities), The Texas Section of APS (Chair), The National Society of Hispanic Physicists (Founder and President) and the Society of Hispanic Professional Engineers. He also has served on numerous boards and committees for The National Science Foundation, NASA and other national agencies, scientific journals, publishers, etc. He has also served institutions such as Universidad Católica de Concepción (Chile), Texas A&M Commerce, University of Texas at Brownsville, University of Texas at San Antonio, Universidad Autónoma de Cd. Juárez (México), and others.

SYNERGISTIC ACTIVITIES

- With funding from the Sloan foundation and in collaboration with Drs. David Ernst (Vanderbilt U.) and Carlos Ordoñez (U. Houston) Dr. Lopez created the National Society of Hispanic Physicists (NSHP) in 1995. While acting as its President, Lopez piggybacked the national NSHP meetings with those of the Texas Section of The American Physical Society to gain strength and members. Now standing on its own –and with over 400 members strong— NSHP received \$500,000 from The National Science Foundation to organize the 2011 national meeting in conjunction with the National Society of Black Physicists. For more information see <http://www.hispanicphysicists.org/board/>.
- Participated with Dr. Javier Herrera to create the Engineering Physics career at the Universidad Autonoma de Cd. Juarez (Mexico). From 1994 to 1996 Dr. Lopez helped in the design of the curricula, cooperative programs with UTEP and invited renowned Mexican and international physicists to visit and advise the new faculty.
- While acting as Chair of the Committee on Minorities (COM) of the American Physical Society, Dr. Lopez helped develop the nascent Minority Speaker Program and the COM's Climate for Minorities Site Visit Program to help organizations improve the climate that minorities in physics sometimes experience.

MEMBERSHIPS

- American Physical Society, Fellow and Lifetime Member.
- Texas Section of American Physical Society.
- National Society of Hispanic Physicists, Founding and Lifetime Member.
- Sociedad Mexicana de Fisica, Lifetime Member, Member of Division of Radiation, Member of Division of Nuclear Physics.
- Society of Hispanic Professional Engineers.

LEADERSHIP

American Physical Society

- Member, Advisory Committee for the Physics and Astronomy New Faculty Workshops, Am. Assoc. of Physics Teachers, the Am. Astronomical Soc. and the American Physical Society, 2009.
- Member, Executive Committee, Forum on International Physics, American Physical Society, from 2001 –2004.
- Member, Forum of International Physics, American Physical Society, 2002-2005.
- Organizer, 1998 Meeting of the Texas section of The American Physical Society, held at UTEP in October 1998.
- Member, Committee of Minorities of the American Physical Society from 1/92 to 12/94. Participant of the meetings of 3/92 (Indianapolis), 4/92 (New York), 3/93, 5/93, 10/93, 3/94, 10/94.
- Member, Visiting Committee to U. of Pittsburg, Committee on Minorities, American Physical Society, 3/30-31, 1998.
- Member, Executive Board, Texas Section, American Physical Society, 1998-2000.
- Past Chair, Committee of Minorities of the American Physical Society, from 1/95 to 12/95.
- Participant, Workshop on Systemic Reform, American Physical Society, Jan. 9 -12, 1995, Bethesda, MD.
- Member, Visiting Team to NMSU's Physics Department, organized by the Committee on Minorities of the American Physical Society. Feb. 27-28, 1995.
- Chair, Committee of Minorities of the American Physical Society, from 1/94 to 12/94. Chair of the meetings of 3/94 and 10/94. Host of COM receptions at the 3/94 and 4/94 meetings of APS.

Texas Section of The American Physical Society

- Past Chair, Texas Section of the American Physical Society, 3/2003-3/2004.
- Chair, Texas Section of the American Physical Society, 3/2002-3/2003.
- Vice Chair, Texas Section of the American Physical Society, 2000 to 2001.
- APS Council Representative, Nominating Committee of the Executive Committee of the Texas Section of the American Physical Society, Arlington, Texas, October 10, 1996.

National Society of Hispanic Physicists

- Session Chair, Panelist, Chair of Marketing Committee and member of Conference Executive Committee, 2011 Joint Meeting NSHP-NSBP, Sept. 21-23, 2011, Austin, TX.
- Panelist, panel "Getting into and staying in graduate school", organized by the national Society of Hispanic Physicists, in the 2008 Joint Fall Meeting of the Texas and Four Corners Sections of APS, AAPT, and Zones 13 and 16 of SPS, and NSHP and NSBP, El Paso, Texas, Oct. 17, 2008
- Communication Officer, from 2000 to date.
- Past-President, National Society of Hispanic Physicists. 3/2003-2/2005.
- President, National Society of Hispanic Physicists. 2000-2003.
- President Elect, National Society of Hispanic Physicists, 1997-2000.
- Member, Organizing Committee, Workshop on Physics Education, National Society of Hispanic Physicists and the Panamerican Association for Physics, held at Instituto Tecnológico y de Estudios Superiores de Monterrey, Monterrey, N.L., Mexico, Sept. 22-24, 1997.
- Chair, Nominating Committee, National Society of Hispanic Physicists, 1996.
- Founder, of the Society of Hispanic Physicists. Austin, May 18, 1996.

Sociedad Mexicana de Física

- Panelist, Round Table Discussion on Science Policy, "1 International Symposium on Radiation Physics", Division of Radiation Physics of the Sociedad Mexicana de Física, Mexico City, Dec. 1-3, 2003.
- Member, Executive Board of the Division of Radiation Physics of the Soc. Mexicana de Física, from 2003 to date.

- Member, Executive Board of the Division of Nuclear Physics of the Soc. Mexicana de Fisica, from 2001 to date.

Other

- Coordinator, Lecture Series, 1st Austin Science and Engineering Festival, Oct. 22-23, 2010.
- Participant, Meeting on Diversity, ExxonMobil-AAPT National Task Force on Undergrad. Phys., Irving, TX, 12/7-8/ 2002.
- 1996-1997 SACNAS advisor, Society for the Advancement of Chicanos and Native Americans. 1995.

SERVICE

REFEREEING AND REVIEWING

- Reviewer, research proposal, Universidad Nacional de Colombia, Feb. 2009.
- Reviewer, NSF, 1996 (RIMI), 2001 (nuclear theory), 2007 (NSF- PHY - MPS/PHY), 2008 (Nuclear theory)
- Reviewer, Department of Defense, ten proposals, 2008.
- Referee, Rev. Mex. Fis., 1995, 2003, 2006, 2008, 2009, 2010, 2011.
- Reviewer, Petroleum Research Fund, 2003, 2005.
- Reviewer, for Brazilian Physics Journal, November 2003.
- Reviewer, Astronomical Society's Universe at Your Fingertips Resource Notebook, Astronomical Soc. of the Pacific, 2001.
- Referee, The Physical Review C and The Physical Review Letters, 1997, 1998, 1999.
- Reviewer, Pacific Northwest Lab., nuclear physics proposal, 1998.
- Reviewer, Advanced Fuel Cycle FOA Merit Review, Energetics Incorporated, 2008.
- Reviewer, NASA MUST Scholarship Selection Committee, Hispanic College Fund, 2008 and 2009.

CONSULTING

Exam preparation, etc.

- Writer, Physics GRE questions, Educational Testing Service, 2011 and 2012.
- Writer, Physics questions, Texas Teacher Certification exam, Educational Testing Service, 2007, 2008, 2009, 2011, 2012.
- Writer of physics questions for Texas Teacher Certification exam – Science 4-8 Teacher's Test, Educational Testing Service, 2008, 2011.
- Document Rater, for College Board Advanced Placement Best Practices Course Study, March 24, 2006, Center for Educational Policy Research, <http://cepr.uoregon.edu>, <http://www.s4s.org>.
- Physics consultant, for IB physics course at Coronado High School, EPISD, from January to May, 2006.
- Exam Rater, of CLEP Natural Sciences examination, January, 2006, College Board's College Level Examination (CLEP) Program, <https://www.standardsetting.org>.
- Participant of AP Pretest Program of Educational Testing Service, Princeton, NJ, Electricity and Magnetism. 1993.

National Science Foundation, NASA, etc.

- Panelist, Graduate Research Fellowship Program, NSF, 2002, 2004, 2005, 2009, 2011 and 2012.
- Panelist, NSDEG Fellowship Program, Dept. of Energy, National Shore, MD, Feb. 18, 2011.
- Participant, "Office of Space Science (OSS) Education/Public Outreach Council", sponsored by NASA/OSS, Galveston, Texas, Tuesday, Dec. 5, 2000.
- Member, Diversity on the Geoscience, NSF Directorate of Geosciences, Arlington, VA, May 18-19, 1999.
- Panelist, NSF Div. Undergrad. Studies, Instrumentation & Lab. Improvement Program, 1994, 1995, 1996 and 1997.
- Member, Visiting Committee, to review NSF's Div. of Undergraduate Education, Arlington, VA, May 21-23, 1997.

- Member, Educational Task Force, NASA's Office of Space Science, 1995-1996. Attended meetings in Washington, D.C., Annapolis, and Las Cruces from 11/95 to 5/1996.

Book reviews

- Chapters 30-35 of Physics for Scientists and Engineers, by Katz, Cengage, 2012.
- Lecture presentations for Physics, by Giambattista, McGraw-Hill, 2011
- Chapters 20-25 of Physics: principles and problems, Quadgraphics2, McGraw Hill, 2011.
- Chapters 21-26 of University Physics, by Bauer and Westfall, McGraw Hill, 2011.
- "Understanding Physics", 2nd ed., by Cummings, et al., for Content Connections, 2005.
- "Modern Physics" by Mark Edwards, McGraw-Hill, \$150, 7/2002.
- "Concept of Modern Physics" by Beiser, McGraw-Hill, 7/2000.
- "Fundamentals of Physics", by Halliday, Resnick and Walker, John Wiley and Sons., 994.
- "Modern Physics, Models and Applications" of Wm. C. Brown Publisher, 1996.

Program advisor

- Ad hoc evaluator, Universidad Catolica de la Santisima Concepcion, Concepcion, Chile. (12/12- 16/2009).
- Evaluator of Physics M.S. Program, of Texas A&M - Commerce, Nov. 2008.
- Evaluator, Educational proposal MECESUP UPA 061, Univ. Playa Ancha, Valparaiso, Chile 27/7–12/8 2008.
- Evaluator of Physics Ph.D. Program of UT Brownsville, subcontracted by UT Brownsville, Sept. 2006.
- External reviewer for faculty promotion , University of Colorado, Colorado Springs, August, 2006.
- External Member of Physics Chair Search Committee, University of Texas at San Antonio, November, 2006.
- Advisor, Engineering Physics degree plan of the Universidad Autónoma de Cd. Juárez, Nov. 2003.
- Advisor, of Engineering Physics degree plan of the Universidad Autónoma de Cd. Juárez, November 2003.
- Advisor, Engineering Physics Career, Universidad Autonoma de Ciudad Juarez, 1997 to 2001.
- Judge, "UT Brownsville AMP Student Presentations", Univ. of Texas at Brownsville, Brownsville, Texas, 4/9/99.
- Participant, "Foro de Discusion de las Ciencias en Cd. Juarez", UACJ, at Juarez City Hall, Jun. 18, 1998.
- Consultor, Universidad Autonoma de Ciudad Juarez, for the creation of a Physics Career. From 1994 - 1995.

Workshops and courses

- Instructor of physics workshop for pre-K and K teachers, Ysleta Independent School District, Aug 3 - Dec 2006.
- Instructor of physics development workshop for 32 MSP Staff Developers, UTEP's MSP, Dec. 5, 2005.
- Instructor of physics development workshop for high school teachers, UTEP's MSP, July 20-21, 2005.
- Workshop, "Middle School Physics", delivered to 32 MSP Staff Developers, at UTEP, Dec. 5, 2005.
- Workshop, "Deepening Science Knowledge for High School Physics Teachers", delivered to 35 high schools teacher at UTEP, July 20-21, 8:30 am. – 3:30 pm, 2005.
- Workshop, "Physics for Pre-K and K Students – Bilingual Seminar for Teachers", delivered to two groups of 45 and 54 teachers at R, Kennedy Pre-K Center, Ysleta ISD, El Paso, Texas, June 8-9, 2005.
- Instructor, "Quantum Mechanics", at the Universidad Autonoma de Ciudad Juarez, Spring 2001.

Universo (Spanish version of StarDate)

- Technical editor, "Universo", Spanish version of "Star Date", radio show produced by McDonald Observatory of the University of Texas at Austin. Organizer of Focus groups, and technical translator. From 1994 to 2010.
- Technical Editor, "Universo a sus pies", by the Astronomical Society of the Pacific, Summer-Fall 2001.
- Technical Editor, "Universo: Ancient Horizons", UT Austin and Science Museum of Virginia, 4/2000.
- Technical Editor, "Universo - Almanaque Celestial", 1996 and 1997, McDonald Observatory.

OUTREACH AND DISSEMINATION

Throughout his career Dr. Lopez has been a leader in outreach activities, especially those favoring Hispanics. In 1993 he was the Chair of the Committee on Minorities of the American Physical Society. From 1993 to 1995 he created the NASA Physics Centers in six high schools of the El Paso area. In 1995 he obtained a grant from the Sloan Foundation to found The National Society of Hispanic Physicists, now with over 400 members. Going beyond our borders, he has trekked most of Mexico to recruit dozens of students for graduate studies in the US, many of whom are now professional physicists in Mexico and elsewhere. An avid writer, he has written dozens of general audience articles both in English and Spanish for newspapers and journals in the USA, México and Spain, and has given over 30 TV, radio and newspaper interviews.

SYNERGISTIC ACTIVITIES

- With funding from GTE (\$30,000), UTEP's MRCE (\$10,000) and NASA (\$84,000), Dr. Lopez maintained an outreach program from 1993 to 1997 which, among other activities, created six "NASA Physics Centers" in six high schools in the El Paso area to do outreach activities, including math and physics tutoring, publishing of a newsletter "Tlaxihuicatl" ("The sky observer" in Nahuatl, the Aztec language), presentations of famous researchers, such as Nobel Laureate Leon Lederman, physics competitions, Open House events, telescope nights, field trips and many other activities.
- Using monies from his own $\rho\sigma\tau$ -Schumaker Professorship, Dr. Lopez supported a Spanish language radio show ("UTEP en El Reto") for several months with Luis Basurto through XEWG 1240 AM, and a weekly column in the Spanish language newspaper "El Reto" for over one year.
- From 1995 to 2010 Dr. Lopez joined efforts with McDonald Observatory's Damond Beningham, and Arturo Vazquez's "Ixtlan Communication" group of broadcast experts to produce "Universo", the Spanish version of StarDate with modified scripts to include Hispanic issues and anecdotes in the daily 2 min. segments. The program was supported with funds from the National Science Foundation, Honda Corporation, NASA, and many other funding agencies and foundations and was broadcast in over 180 radio stations throughout the US, Mexico and Central and South America; at present the show continues monthly due to lack of funds. For more information see <http://radiouniverso.org/>.
- With funding from the American Physical Society Dr. López created the Hispanic Physicists Radio Show with Ixtlan Communications to create dozens of interviews of Hispanic physicists to be broadcast in Spanish speaking radio stations throughout the USA; in progress from 2011- 2012.

INTERVIEWS

1. Round Table Panelist, [2011 NSHP National Conference](#), Austin, TX, Sep. 21, 2012
2. "[Estudiarán alemanes basurero nuclear...](#)", El Diario de El Paso, El Paso, TX, Sep. 19, 2011.
3. Radio interview, [Volumen Extremo Programa "Visión Morena"](#), Dallas, Texas, Mar. 17, 2012, 12:00 - 2:00 pm
4. Video interview, for [The Peer-Led Team Learning International Society](#) (click under physics); if link is not active, [click here](#), Oct. 2011.
5. [Radio interview](#) in "RAYMN8R" in American Conservative Radio Network, ½ hour, Apr. 5, 9:00 PM EST, 2011, by Ray Spitzer, <http://www.blogtalkradio.com/ac-nation/2011/03/23/the-raymn8r-report>.
6. [Radio interview](#) in "Breaking it down with DT" in American Conservative Radio Network, ½ hour, Mar. 17, 10:00 PM EST, 2011, by David Terry, <http://www.blogtalkradio.com/ac-nation/2011/03/18/breaking-it-down-with-dt>.

7. TV and Radio Interview "Alerta sobre posible fraude electoral en 2012", 5 min. by Josefina Real of Medios UDG Noticias, in the studios of TV Universidad, Universidad de Guadalajara, Guadalajara, México, Mar. 12, 2011. <http://www.medios.udg.mx/node/7456>.
8. Radio Interview, "Medios UDG Noticias", by Josefina Real, by phone, Universidad Autónoma de Guadalajara, Mexico, 9:13 min., May. 6, 2010.
9. Radio Interview, "A ciencia cierta", by Rocío Ortiz, in the studios of Radio Zacatecas, Zacatecas, Mexico, 9:59 min., Mar. 9, 2010, <http://www.youtube.com/watch?v=ZaFm1Jk4ueU>.
10. Radio Interview, "Enfoque Latino", by Rubén Tapia, by phone, Radio Pacifica KPFK 90.7 FM, Los Angeles, CA, 7:37 min., Mar. 9, 2010, <http://www.youtube.com/watch?v=nQ4-2Lsy2qI>.
11. Interview in Diario de El Paso, Nov. 2, 2009, by Celia Gonzalez.
12. Report in El Paso Times, Nov. 2, 2009.
13. Interview, in Diario La Jornada Aguascalientes, Aug, 31, 2009, by Mauricio Navarro, page 11: http://newarrior.com/jornada/hemeroteca/2009-08_Agosto/31082009.pdf.
14. Interview, in newspaper "Aguas", Aguascalientes, Aug, 8, 2009.
15. Radio Interview, "7:00 AM", by Gaby Hermosillo, in the studio of Radio Universidad, Universidad Autónoma de Aguascalientes, Aguascalientes, Mexico, 10:07 min., 8/20/2009, www.youtube.com/watch?v=HHApnshWI-0.
16. TV Interview, "En Contexto", 4:53 min. by Rubén Luengas, in the studios of Telemundo, Burbank, CA, Jul. 31, 2009, <http://www.youtube.com/watch?v=Gh6Aov84wOk>.
17. Science Capsules, in "El Reto Radio" in KVIV, El Paso, every Wednesday from 3:45 to 4:00 pm, from Sept. to Nov., 2008, host: Dr. Samuel Schmidt.
18. Mention in article "Universe Radio Program Airs 5,000th Episode, Brings Astronomy and Skylore to Spanish-Speaking Audience", Nov. 25, 2008, http://www.utexas.edu/news/2008/11/25/universo_radio/.
19. "UTEP en El Reto, ½ hour radio show, with Luis Basurto, XEWG 1240 AM, Cd. Juárez, México, from Oct. to Dec. 2008, <http://utepelreto.blogspot.com/2008/12/emisin-del-da-13-de-diciembre-de-2008.html>.
20. Interview in "Línea Abierta" in Radio Bilingüe, broadcast in all USA, 1 hour, Dec. 12, 2007, by Dr. Samuel Schmidt, http://archivosderb.org/?q=es/audio/by/guest/jorge_l_pez.
21. Article "Physics mentoring on the Mexico-US Border", Minority Scientists Network of the American Association for the Advancement of Science, 6/2002, http://sciencecareers.sciencemag.org/career_development/previous_issues/articles/1470/physics_mentoring_on_the_mexico_u_s_border, or <http://nextwave.sciencemag.org/cgi/content/full/2002/04/11/13> or <http://physics.utep.edu/LopezLJ/AAAS/Next%20Wave%20-%20Lopez,%202002-04-12,%20UNITED%20STATES.htm>
22. Article "Tragedy does not stop nuclear physics seminar at UTEP", by Georgiana Vines for El Paso, Inc., El Paso, TX, 11/4-10/2001, featuring the IV Latin American Symposium on Nuclear Physics organized by J. A. Lopez in Mexico City.
23. Article "Nuclear Struggles", by Georgiana Vines for The News Sentinel, Knoxville, TN, October 16, 2001, featuring the benefits of the IV Latin American Symposium on Nuclear Physics organized by J. A. Lopez in Mexico City.
24. ½ hour interview, by Juarez TV show in Ch. 56, February, 2001.
25. Article "The New College Try", Time Magazine, January 8, 2001, featuring the innovating approach to teaching Science Methodology and Physical Science of S. Blake and J. Lopez, <http://www.time.com/time/education/article/0,8599,93264,00.html>
26. Mention in Article "Meet the Experts", NOVA, UTEP, Fall 2001, featuring experts on collaborations with Mexico.
27. Interview, by Channel 5 XECJ, on the January lunar eclipse, Jan. 2000.
28. Interview, by UTEP's NASA/NRST Team, presented by H. Shulte at the Atlanta NASA/NRST Conference, 9/2000.
29. Interview, by Radio Net 1490 AM, "Al filo de la ciencia", September, 2000.
30. Interview, by Hector Noriega, at Juarez radio show "Civilizaciones", FM 98.3, 12/5/1998. With Alfredo Aranda.
31. Interview, by an El Paso TV station (Channel 7), on my organization of the Meeting of the Texas Section of the American Physical Society at UTEP, Oct 15, 1998.
32. Interview, published in Hispanic Outlook in Higher Education, by Ines Alicea, New Jersey, Apr. 20, 1998.
33. Interview, published in UTEP's NOVA, by Walli Haley, Spring 1998.
34. Interview, published in Gaceta Universitaria, the newspaper of the Universidad Autónoma de Cd. Juárez, in "El Arte de Pensar e Investigar", Sept., 1998.
35. Interview, by a San Luis Potosí TV station, on my visit to Universidad Autonoma de San Luis Potosí to recruit Mexican students for our M.S. Physics Program., May 1998.
36. Interview, in "Faculty/Mentor Profiles" in UTEP's "Nova", UTEP News and Publications, Vol 34, No. 3; No. 133, 1998.
37. Interview, published in The Dallas Morning News in "Scientists strive to turn young Hispanics' eyes toward the sky", by Mercedes Olivera, Aug. 13, 1997.
38. Interview, published in El Paso Herald Post in "UTEP shows off hands-on learning", by Laurie Gallardo, 11/12/96.

PRESENTATIONS

1. "Quantum Consciousness", General Audience Talk, [Phyl-Phys group](#), GlasBox, El Paso, TX, Apr. 22, 2011.
2. "Hispanics in Physics", Colloquium at Cal State Fresno, Mar. 18, 2011.
3. "Scientific studies of electoral data", Centro Universitario de Ciencias Económico Administrativas, Universidad de Guadalajara, Mexico, Mar. 14, 2011.
4. "Scientific studies of electoral data", Centro Universitario de Ciencias Exactas e Ingeniería, Universidad de Guadalajara, Mexico, Mar. 15, 2011.
5. "Fraude Electoral", General audience talk, Biblioteca "Roberto Cabral del Hoyo", Zacatecas, México, Mar 9, 2010.
6. Lopez, J. A., Book Presentation in Los Angeles, "Scientific studies of electoral data," Suplemento Comunitario KPFFK 90.7 FM, Frente Amplio Progresista, 3471 w. 8th St, Los Angeles, CA (August 29, 2009).
7. Seminar, "Scientific studies of electoral data", presented to Juárez Rotary Club, Cd. Juarez, Sep. 2009.
8. Seminar, "Física y Arte", Club Rotario Cd. Juárez, Oct. 4, 2007.
9. Seminar, "Physics of Easter", presented to Heisenberg Club, Universidad de Colima, Colima, Mexico, 6/2/2006.
10. Seminar, "Einstein's Mistakes", presented to Heisenberg Club, Universidad de Colima, Colima, Mexico, 9/4/2005.
11. Seminar, "Science studies at UTEP", presented to Juárez Rotary Club, Cd. Juarez, Sep. 23, 2004.
12. Seminar, "UTEP's Very Small Array", presented to Heisenberg Club, Universidad de Colima, Mexico, 6/4/2004.
13. Seminar, "Física para Kinder ", presented to Grupo Abel, ITESM-Cd. Juarez, April 12, 2003.
14. Seminar, "Problemas matemáticos ", presented to Grupo Abel, Universidad Autónoma de Ciudad Juárez, 6/2/2001.
15. Seminar, "Física Nuclear en el año 2000", at the I Semana de Ciencia Y Tecnología, organized by Sociedad Mexicana para el Progreso de la Ciencia y la Tecnología, Universidad Autónoma de Ciudad Juárez, Mexico, Apr. 20-24, 1998.
16. "Radiación de Fondo", presentation at the VI Semana de Astronomía, organized by the Sociedad Astronómica de Cd. Juárez, at the Universidad Autónoma de Ciudad Juárez, Mar. 23-27, 1998, Juárez, Mexico.
17. "The Physics Circus ", at the 50th Anniversary of Instituto Tecnológico de Durango, May 14, 1998, Durango, Mexico.
18. How Many Barbers are there in Juárez? discussion session presented to UACJ's Grupo Abel, UACJ, May, 1998.
19. "SOMPROCYT Week", organizer of a week-long presentations of science talks at Univ. Autónoma Cd. Juárez, April, 1998.
20. "Radiación de Fondo", presentation to Juárez's math club "Abel", at the Universidad Autónoma de Ciudad Juárez, Feb. 15, 1997, Juárez, Mexico.
21. "Mecánica Cuántica", presentation to middle school teachers from Chihuahua's Department of Education, UTEP, Dec. 6, 1997, Juárez, Mexico.
22. "Contact", after-movie discussion at Plaza Juárez Movie Theater, Oct. 25, 1997, co-organized by Sociedad Astronómica Juarense and Universidad Nacional Autónoma de México, Juárez, Mexico.
23. "Science Education and Research in Mexico", presented to UTEP's POLS 3437: "UG The Politics of Mexico", 12/2/ 1997.
24. Seminar to UTEP's Club Zero, Math. Department, April 5, 1996.
25. "Ondas Gravitacionales", presentation a la Sociedad Astronómica de Cd. Juárez, at the Universidad Autónoma de Ciudad Juárez, Dec. 20 1996, Juárez, Mexico.
26. Host of NASA's OSS Education Director, Dr. Jeffrey Rosendhal, April 25-26, 1996. Seminar presented by Dr. J. Rosendhal: "Scientists' Role in Education".
27. Organizer of book and journal donations to the University Autónoma de Ciudad Juárez, with the help of Dr. Jorge Gardea, the American Chemical Society and NMSU. 1995-1996.
28. Host of American Physical Society's Director of Education, Dr. Ramon Lopez, March 16, 1995. Seminar presented by Dr. R. Lopez: "NSF Systemic Reform".
29. "La Materia Oscura", general audience article published in Alfa Geminis, V, pp. 3-6, 1993, Cd. Juárez, Mexico.
30. "Physics Circus", presented at the 1993 SACNAS Conference, January 1993, Albuquerque, New Mexico.
31. "Energía Nuclear", presentation to high school students at the Instituto Tecnológico y de Estudios Superiores de Monterrey, Cd. Juárez Campus, May 1993.
32. "Nuclear Fragmentation", presented to the Sigma XI society, Nov. 17, 1992, UTEP.
33. "Nuclear Fragmentation", presented to Sociedad Astronómica Juarense, Nov. 14, 1992, Univ. Aut. de Cd. Juárez.
34. Seminar, "Nuclear Fragmentation", presented to the Sigma XI society, Nov. 17, 1992, UTEP.
35. Science Presentations, telescope observations, physics demonstrations, etc. Mostly to Eastwood Heights Elementary School, and other schools in the Socorro ISD.

PUBLICATIONS

Alfa-Geminis (Sociedad Astronómica Juarense)

1. "Roswell: el final de un mito", Alfa Geminis, Jul-Aug 2010, www.alfageminis.com.mx/ediciones/2010/Julio_2010.pdf
2. "Comprando lunas", Alfa Geminis, May 2009. http://www.alfageminis.com.mx/ediciones/2009/Mayo_2009.pdf
3. "Ondas Gravitacionales", Alfa Geminis, 2008.
4. "La Materia Oscura", Alfa Geminis, V, pp. 3-6, 1993.

La Jornada

5. "Remojando las barbas del Conacyt", 8/14/2000, La Jornada
<http://serpiente.dgsca.unam.mx/jornada/2000/ago00/000814/cien-cara.html>
6. "G. Bruno, Mártir de la ignorancia", 3/13/2000, La Jornada
<http://serpiente.dgsca.unam.mx/jornada/2000/mar00/000313/cien-cara.html>
7. "2000 Año Bisisesto", La Jornada 2/14/2000, <http://serpiente.dgsca.unam.mx/jornada/2000/feb00/000214/cien-cara.html>

El Reto

8. "Roswell: El final de un mito", "El Reto", May 2010,
9. "Los errores de Einstein", "El Reto", No. 308, Oct. 21-27, 2005.
10. "Ovnis y yo", "El Reto", 2/3/2000
11. "Comprando lunas", "El Reto", 1/22/2000
12. "Física aplicada en Colombia", "El Reto", 9/23/99
13. "Dios: lo que dice la ciencia", "El Reto", 9/16/99
14. "¿Y la ciencia en Juárez?", "El Reto", 9/9/99
15. "Perturbando el Universo", "El Reto", 9/2/99

El Diario (Mexican newspaper)

16. "La Nueva Física", published in "El Diario", 4/7/99
17. "El Circo de Física", published in "El Diario", 4/22/99
18. "La Nanofísica", published in "El Diario", 3/23/99
19. "Teletransportación", published in "El Diario", 3/6/99

Other publications

20. Article "El lenguaje de la física", Revista Digital Universitaria, UNAM, Aug./1/ 2011, ISSN 1607-6079, <http://www.revista.unam.mx/vol.12/num8/art73/index.html>
21. Article "Roswell: fin de un mito", Suplemento Científico, La Jornada Veracruz, 8/May/2011, http://wiki.utep.edu/download/attachments/39715320/EIJarchoCuantico_201105.pdf?version=1
22. Article "Physics mentoring on the Mexico-US Border", Minority Scientists Network of the American Association for the Advancement of Science, 6/ 2002, http://sciencecareers.sciencemag.org/career_development/previous_issues/articles/1470/physics_mentoring_on_the_mexico_us_border, or <http://nextwave.sciencemag.org/cgi/content/full/2002/04/11/13> or <http://physics.utep.edu/LopezLJ/AAAS/Next%20Wave%20--%20Lopez,%202002-04-12,%20UNITED%20STATES.htm>
23. Article "The New College Try", Time Magazine, January 8, 2001, featuring the innovating approach to teaching Science Methodology and Physical Science of S. Blake and J. Lopez, www.time.com/time/education/article/0,8599,93264,00.html
24. Editor of "El Paso Physics Teacher" the newsletter of the Greater El Paso Physics Teachers Association. Published quarterly from 1/95 to 5/98.
25. Editor of "The Hispanic Physicist", monthly newsletter, National Society of Hispanic Physicists, since 5/97 to date.
26. "Implementing the Office of Space Science Education/Public Outreach Strategy", published by NASA's OSS-Space Science Advisory Committee Education/Public Outreach Task Force, Oct. 15, 1996.
27. Editor of "El Paso Physics Teacher" the newsletter of the Greater El Paso Physics Teachers Association. Published quarterly from 1/95 to 5/96.
28. Editor of COM's newsletter "COM...munications", published by APS, from 1/94 to 12/94.
29. Editor of "Tlaxihuicatl", a physics newsletter published each semester with funds of NASA's Physics Centers Programs. From 9/94 to 6/97.

30. "Northeast Chapter of the Society for the Advancement of Chicanos and Native Americans in Science Formed", published in the September 1993 issue of "C.O.M...UNICATIONS", the newsletter of APS' Committee on Minorities.
31. "Leading Latinos to Physics", September 1992 issue of "C.O.M...UNICATIONS", the newsletter of the Committee on Minorities of the American Physical Society, 1992.
32. "Leading Hispanics to Science Can Be a Science in Itself", published in the section "Voices" of Vista, the weekly supplement to major US newspapers, December 25, 1990.
33. J.A. Lopez and V. Martinez, "Cuando Explotan las Estrellas", La Vanguardia, March 1988, Barcelona, Spain.
34. J.A. Lopez and V. Martinez, "Hivern Nuclear", (in Catalan), El Temps, August, 1987, Valencia, Spain.
35. J.A. Lopez and V. Martinez, "¿Qué pasó en Chernobyl?", El Universal, April, 1987, Juarez, Mexico,.
36. J.A. Lopez and E. Martinez-Gonzalez, "Una Visita al Museo Cosmico", El Pais, March 1986, Madrid, Spain.

OUTREACH ACTIVITIES

1. "Nuclear Energy ", presentation to 6th graders, Ysleta I.S.D., El Paso, TX, Oct. 14, 2009.
2. "Physics Circus", presentation at the 2009 Science Fair, Balboa Park, San Diego, CA, Apr. 4, 2009.
3. Recruiting trip, University Autónoma de Baja California, Ensenada, Baja California, Mexico, Nov. 24-26, 2008.
4. Recruiting trip, University Autónoma de Sinaloa, Culiacán, Sinaloa, Mexico, May. 20-22, 2007.
5. Organizer of "Ciencia de frontera", a series of 11 weekly talks for high school student from Ciudad Juarez, Mexico, at the Universidad Autónoma de Cd. Juárez, from February to May 2006.
6. Recruiting trip, University Autónoma de Baja California, Ensenada, Baja California, Mexico, Nov. 23-25, 2005.
7. Attendant to "Conacyt Science Fair ", Mexico City, Mar. 4-7, 2005.
8. Attendant to "Conacyt Science Fair ", Mexico City, Mar. 5-7, 2004.
9. Recruiting trip, University of Sonora, Hermosillo, Sonora, Mexico, Nov. 24-25, 2004.
10. Organizer of "Ciencia de frontera", a series of 17 weekly talks for high school student from Ciudad Juarez, Mexico, at the Universidad Autónoma de Cd. Juárez, from September to December, 2004.
11. Seminar: "Physics of Halloween", delivered to 220 high school students at the series of talks "Ciencia de frontera", Universidad Autónoma de Ciudad Juárez, 11/1/2003.
12. The Physics Circus", presented to the faculty and students of the Universidad Autónoma de Cd. Juárez, with C.H. Cooper, at the "Semana de Ingeniería 2003", 9/10/2003.
13. Organizer of "Ciencia de frontera", a series of 17 weekly talks for high school student from Ciudad Juarez, Mexico, at the Universidad Autónoma de Cd. Juárez, from August to December, 2003.
14. Seminar: "Halloween", delivered to 220 high school students at the series of talks "Ciencia de frontera", Universidad Autónoma de Ciudad Juárez, 11/1/2003.
15. "The Physics Circus", Univ. Autónoma de Cd. Juárez, at the "Semana de Ingeniería 2003", 9/10/2003.
16. Workshop: The Physics Circus", Univ. Autónoma de Cd. Juárez, at the "Semana de Ingeniería 2003", 9/11/2003.
17. Attendant to "Conacyt Science Fair", Mexico City and Guadalajara, Mexico, May 8-13, 2002.
18. Visit to five "preparatorias" in Juarez City, May, 2002.
19. Visit, to Universidad Autonoma de Colima, in Colima, Mexico, to promote our M.S. Physics program, with Dr. Tom Brady, November 17-20, 2003.
20. Attendant to "Conacyt Science Fair", Mexico City, Sept. 9-12, 2001.
21. Recruiting Trip to Mexico, a 2-week trip to 11 Mexican institutions in 8 cities, May-Jun. 2000.
22. Visit to four preparatorias in Juarez City, May, 2000.
23. Recruiting Trip to Mexico, a 2-week trip to 11 Mexican institutions in 8 cities.
24. Recruiting Trip to Mexico, a 2-week trip to 11 Mexican institutions in 8 cities, May 1998.
25. Science Presentations. Many school visits for telescope observations, physics demonstrations, etc. Mostly to Eastwood Heights Elementary School, and other schools in the Ysleta and Socorro ISD. 1997-1999
26. Group Visit of High School Students and Teachers, Accelerator Facility, U. North Texas, 5/1-3/1997, Denton, TX.
27. Visit to Minority Students in Moorehead, Minnesota, Mar. 27-29, 1995.
28. Advisor of High School student Adriana Gallegos, UTEP's LIFT-OFF program, summer 1995.
29. Visit to two preparatorias in Juarez City, May, 1995.
30. "Physics Circus", 1993 SACNAS Annual Conference, Albuquerque, 1-14 to 1-18, 1993.
31. "Fisica en UTEP", Universidad Autonoma de Nuevo Leon, May 20, 1993, Monterrey, Mexico.
32. Visit to two preparatorias in Juarez City, May, 1993.
33. "Recruiting Seminar ", Universidad Nacional Autonoma de Mexico, May 26, 1992.

SPS Activities

34. Lunch seminar by Ben Zeidman, Argonne Nat. Lab., 10/1996.
35. Lunch seminar by Richard Gomez, US Army Corp of Eng., 10/96.
36. Student Seminars by Sergio Chaparro, Mike McKay and Ken Pane, 5/1996.
37. Tutoring for 4210, 4211 and 3325, Spring 1996.

NASA Physics Centers Activities

38. Supervision of six Physics Centers in Socorro, Andress, Jefferson, Del Valle, El Paso and Fabens high schools.
39. Physics Newspaper.
40. Presentation by NMSU's Reta Beebe, November, 96.
41. Presentation at UTEP of Nobel Laureate Leon Lederman, May, 1996.
42. Presentation at UTEP of Jet Propulsion Lab's Sami Asmar, October, 1996.
43. Physics Open House, October 23, 1996. With 250 hot dogs cooked!
44. Viewing of lunar eclipse, Del Valle High School, 9/26/96.
45. Presentation at UTEP of CalTech's Kip Thorne, April 25, 1995.
46. Physics Open House, April 25, 1995.
47. Telescope night at five high schools, 9/95.
48. Creation of six Physics Centers in Socorro, Andress, Jefferson, Del Valle, El Paso and Fabens high schools. Centers are responsible for physics tutoring, etc. Fall 94.
49. Presentation at UTEP, Andress and Jefferson H.S. by Ginger Kerrick, NASA Johnson Space Center, 1-23-94.
50. Telescope night at five high schools, 9/94.

Society of Physics Students Activities

51. Lunch seminar by Ben Zeidman, Argonne Nat. Lab., 9/1995.
52. Student Seminars by Raul Armendariz, Jaime Morales and Richard Coronado, Fall 1995.
53. Tutoring for 4210, 4211 and 3325, Fall 1995.
54. Student Seminars by Alfredo Aranda, Tim Robinson and Zehua Wu, Spring 1994.
55. Tutoring for 4210, 4211 and 3325, Fall 1994.
56. Creation of a library. Fall 1994.
57. Lunch presentation by Ben Zeidman, Argonne National Lab., 9-14-94
58. Lunch presentation by Warren Buck, Hampton University, 9-21-94
59. Lunch presentation by Jolie Cizewski, Rutgers University, 9-29-94
60. Student Talks by Gildardo Rivas, Mario Borunda, and Alfredo Aranda, 3-3-94.
61. Trip to McDonald Observatory, 11-94.

"The Physics Link" Activities

62. Presentation by Reta Beebe, 5-9-94.
63. Observation of Solar Eclipse (over 2000 participants), 5-10-94.
64. Pin-Hole Camera Contest, 5-13-94.
65. Summer Research Program (12 participants), June 1993.
66. Hot-Air Balloon Contest, 11-20-94
67. Presentation by Robert Liefeld, 11-20-94.
68. Presentation by Robert Liefeld, 4-14-93.
69. Hot-Air Balloon contest, 5-13-93.
70. Summer Research Program, (24 participants), June 1993.
71. Field Trip to White Sands Missile Range, 6-26-93
72. Presentation by Reta Beebe, 10-28-93.
73. Observation of Lunar Eclipse, 11-28-93.
74. Photo Contest of Lunar Eclipse, 12-1-93.

TEACHING

Dr. Lopez has taught physics courses at all levels, supervised BS, MS and PhD students, modified curricula and develop teaching material for university and pre-college levels, especially for pre-K. Has written journal articles on educational topics, and has requested and obtained funds for educational activities. Additionally has created educational programs within the University, with local school districts and with other universities.

SYNERGISTIC ACTIVITIES

- An Integrative Science Success, Teaching and Retention Program for STEM Education. Project (funded by NSF) in which Dr. Lopez, along with faculty from Chemistry, Engineering and Education, introduced undergraduate students as Peer Leaders in the teaching of calculus-based physics courses.
- Partnership for Enhancing Teacher Education. Seminal project (funded by NSF) in which Dr. Lopez merged his physical science course for education majors with a science methodology course of the College of Education and moved it to the elementary schools. These courses were taught at eight schools in the El Paso area using inquiry-based teaching and constructivist methodologies. This project was recognized by Time magazine in the Jan. 8, 2001 article "The New College Try", www.time.com/time/education/article/0,8599,93264,00.html.
- Distance-Learning Physics MS program with UT Brownsville. To help the University of Texas at Brownsville develop its own MS program, Dr. Lopez and UTB's Dr. Mario Diaz designed a distance-learning program to allow UTB have graduate students taking courses remotely by cable in real time. The program benefitted approximately ten students and lasted four years until UTB's MS program was approved.
- Cooperative program with Universidad Autonoma de Cd. Juarez. To help the Univ. Autonoma de Cd. Juarez develop its own physics program, Dr. Lopez designed a cooperation program that allowed UACJ's students take physics labs at UTEP; Dr. Lopez alleviated the lack of faculty by teaching Modern Physics and Quantum Mechanics *pro bono publico*.
- Cooperative program with Universidad Autonoma de Colima. To help the Univ. Autonoma de Colima (UAC) develop its own physics program, Dean Thomas Brady, Dr. Lopez and Dr. Alfredo Aranda started a program that allowed UAC's faculty supervise UTEP MS physics students; the program also allowed the exchange of students in the summer.
- Development of new programs. Participated actively in the processes leading to the creation of the Ph.D. program in Computational Science and in the physics concentration in medical physics.

COURSES TAUGHT

- PHYS 1404 General Physics II Labs
- PHYS 1403 General Physics I Labs
- PSCI 2303, Physical Science I
- PSCI 3304, Physical Science II
- PHYS 4220, General Physics I
- PHYS 2421 General Physics I
- PHYS 2477, Intro to physics
- PHYS 3325 Survey of Modern Physics
- PHYS 4341 Electromagnetics I
- PHYS 4342 Electromagnetics II
- PHYS 4355 Intro to Quantum Mechanics
- PHYS 4356 Atoms, Molecules and Solids
- PHYS 4357 Relativity Nuclear and Particles
- PHYS 5195 Graduate Seminar
- PHYS 3521, Graduate Mechanics
- PHYS 5325, Graduate Math Physics
- PHYS 5341, Graduate Electrodynamics
- PHYS 5365 Graduate Advanced Statistical Physics
- MASE 6402/MME5401 Ph.D. Mat. Characterization

DIRECTION OF DISSERTATIONS AND THESES

Ph.D. Dissertation

- Mario Borunda, Ph.D. at Mexico's Instituto Politecnico Nacional, defended on Nov. 26, 1997.

MS Theses

- Rodrigo Gamboa Goñi, "The nuclear symmetry term", 2007. Now teaching high school in Mexico.
- Christian Escudero, "Nuclear Isoscaling", two publications, May 2007. Best Thesis Award 2008. Now a Ph.D. in Geology working at the University of Guadalajara in Puerto Vallarta.
- Carlos Martínez, Dec. 2006, co-supervised by Dr. W. Durrer. Now working in Industry in Mexico.
- Karen Castrejón, May 2006, "Distribution of Charges in a Wire". Now a physics lecturer at Univ. A. Cd. Juárez.
- Jesus Saenz, May 2006, "The Fermi Integral". Now Director of Eng. Physics Program at uacj.
- Armando Barrañon, M.S. degree in physics from Instituto Politecnico Nacional de Mexico, in May 2005, co-supervised with IPN's Dr. Fray de Landa. Now a professor at Universidad Autonoma Metropolitana in Mexico City.
- Luis Martin Sandoval, Aug. 2005, "The Linear Delta Expansion", in geology Ph.D. studies at UTEP.
- Jose Filadelfo Aguilar Andrade, Aug. 2005, now at the Benemerita Univ. de Puebla in Mexico.
- Olienka de la O Fernández, Aug. 2005, Report: "A code for biophysics", attended summer school in biophysics in Montreal, Canada in 2004, now in UTEP's MASE Ph.D. program.
- Sergio Yanuén Rodríguez, graduated in August 2004, in co-supervision with W. Durrer. Now in Ph.D. studies at Texas A&M University.
- Federico Lopez, August 2004, in co-supervision with W. Durrer. Now in Ph.D. studies at Texas A&M University.
- Luis Basurto, graduated in December 2004, one oral presentation at the meeting of the Mexican Society of Physics in 10/2004, now in Ph.D. studies in Computational Science at UTEP.
- Jesús Escamilla Roa, M.S. degree obtained in May 2003. Two publications, student presented his work at the V Latin American Symposia in Santos, Brazil (poster, 9/2003). Ph.D. FROM Vanderbilt University in 2008.
- Rafael Cárdenas, M.S. Degree, May 2002. Ph.D. from Texas Christian U. in 12/2007.
- Miguel Castro Colin, M.S. May 1998. Completed Ph.D. studies at U. Houston in 2004, now a researcher at the Max Planck Institute in Germany.
- Milijana Sukavcevic, M.S. May 1998. EDD from UTEP, 2003 now at Rice University.
- Batu Batu, M.S. May 1998. Employed by the State of Minneapolis.
- Xiaofang Mu, M.S. May 1998. Continued with Ph.D. studies in Computer Engineering at UTEP.
- Xiaoyu Wang, M.S. Aug. 1996, went for Ph.D. studies in Canada.
- Tim Robinson, M.S. May 1996, "Breakup of Small Nuclei ". Went for Ph.D. studies to Texas A&M University, now employed as high school teacher In Tahiti.
- Zehua Wu, M.S. May 1996, earned an M.S. in computer science at U. Houston.
- Raul Armendariz, M.S. August 1996, "The Search for Gravity Waves". Best Thesis of the year, JPL Cuesta Fellow from 1994 until 1996. Earned a Ph.D. in Physics at New Mexico State University.
- Ganesh Thondikulam, M.S. 8/1995, "Phase shifts of NN scatterings", employed in Minneapolis.
- Gildardo Rivas, M.S. August 1994, "The use of autocorrelation in the search for periodicities in spacecraft Doppler data as applied to gravity wave detection". Ph.D. at U. Washington, Seattle, 3/2004, now a professor at UACJ.

BS Thesis

- Enrique Ramirez-Homs, "XRF studies of Pueblo Indian ceramics", in progress, 2012.
- Manuel Antonio Ramos, "Nuclear Fragmentation" and "Surface studies", B.S. degree awarded in 12/2003. Completed Ph.D. studies in Materials Science at UTEP and is now a professor at Univ. A.de Cd. Juarez.

SUPERVISION OF UNDERGRADUATE RESEARCH

- Enrique Ramirez Homs, 2009 to date.
- Manuel Oscar Saenz, Fall of 2010 to 2011.
- Juan García, 2009 to 2010.
- Jorge Muñoz, 2005 to 2008.
- Alán Dávila, 2002 to 2006.
- Christian Escudero, 2000 to 2005.
- Antonio Ramos, 2001 to 2002.
- Manuela Ortiz, 2001 to 2003.
- Yazmín Domínguez, 2001 to 2003.
- Azael Ávalos, 2000 to 2002.
- Martha Navarro, 1998 to 2001.
- Fabian Botello, summer of 1998.
- Miguel Cortez, 1997 to 1998.
- Karina Apodaca, 1997 to 1998.
- Jose Ricardo Correa, 1997 to 1998.
- Mario F. Borunda, 1997 to 2003.
- Carlos Velasco, 1995 to 1996.
- Rocio Gisel Olave, 1995 to 1998.
- Richard Coronado, 1995 to 1997.
- Jaime Morales, 1995 to 1998.
- Mike Carroll, 1994 to 1995.
- Raul Medellin, 1994 to 1996.
- Francis C. Hoyt, summer 1994.
- Veronica Alvarado, 1993 - 1994.
- Alfredo Aranda, 1993 to 1996.
- Mario Borunda Sr., 1992 to 1994.
- A. Guarnero, Fall 1991.
- F. D. Guzman, Summer 1991.
- Arturo Revilla, 1991 to 1992.
- Jose Ramirez, 1990 to 1991.
- Jose Lozano, fall 1990.

THESIS AND DISSERTATION COMMITTEES

- Nayeli Camacho, Mat. Sci. & Eng. PhD, 2014.
- Karina Puebla, Mat. Sci. & Eng. PhD, 2012.
- Sara Gaytan, Mat. Sci. & Eng. PhD, 2011.
- Manuel Ramos, Mat. Sci. & Eng. PhD, 2010.
- Cesar Santos, Mathematics MS, 2009.
- Enrique Díaz, Physics MS, 2009.
- Oscar Dena, Geology Ph.D. 2008
- Hector Garces, EE Ph.D. 2007
- Matías Ison, Physics Ph.D. 2006, Argentina.
- John Olgin, Physics MS, 2006
- José Valadez, Physics MS, 2005.
- Osvaldo Rodriguez, MASE Ph.D, 2005.
- Leticia Sifuentes, Computer Science MS, 2003
- Hector Gonzalez Huizar, MS Physics, 2003
- Roberto Arceo, MS Physics, 2003
- Alejandro Lugo, MS Physics, 2003
- Pablo Balenzuela, Ph.D. Physics Ph.D., 2002 Universidad de Buenos Aires, Argentina.
- Gopi Krishna Manne, ECE MS, 2002.
- Miguel Delgado, Geology MS, 2002.
- Hector Garcés, ECE MS, 2002.
- Miguel Angel Sagarnaga, ECE MS, 2002.
- Albert Peralez, Chemistry MS, 2002.
- Alejandro Puga, MS Physics, 2001.
- Charlie Torres, MS Physics, 2001.
- Leandro Trevino, Ph.D. Geology, 2001.
- Shu Chan, ECE MS, 1999.
- Gabriel Thomas, Ph.D. Elec. & Comp. Eng., 1998.
- Jae Sok Son, Elec. Ph.D. , Comp. Eng., 1998.
- Roberto Gabaldon, ECE MS, 1998.
- Anthony Smith, MS Physics , 1998
- Rodrigo Mendoza, ECE MS, 1997.
- Javier Vega-Pineda, ECE Ph.D. , 1997.
- Gabriel Osorio, ECE MS, 1997.
- Raymundo Olague, MS Mech. & Ind. Eng., 1996.
- Jesus Del Villar, ECE MS, 1996.
- Jose de la Rosa, ECE MS, 1996.
- Aldo Lucero, ECE MS, 1995.
- Chiouguey Joyce Chen, ECE MS, 1994.
- Sergio A. Chaparro, MS Physics, 1994.
- Rajendra Kumar, Mech. & Ind. Eng MS, 1993.
- Gabriel Thomas, ECE MS, Dr. B. Flores, 1993.

CURRICULUM DESIGN AND TEACHING MATERIAL

University Level

- PHYS 2421. Development of podcasts (MP4 and WMV) for lecture delivery, 2009, supported by STEP UP NSF grant.
- PHYS 2420/2421. Modification of content, development of teaching materials, in-class demos, and introduction of Peer Leaders, 2007- 2008, supported by STEP NSF grant.
- PHYS 3441 Electromagnetism. Modification of content and new teaching material, 2006.
- PHYS 3331 Thermal Physics. Modification of content and development of teaching material of PHYS 3331 in support to new faculty Dr. Tunna Baruah, Fall 2005.
- PHYS 3243: Radio Astronomy. A radio telescope designed and constructed for PHYS 3243, with Luis Basurto, 2005.
- PHYS 3325: Modern Physics. In-class demo "Bohr Model Spectroscopy", with elaboration of pre- and post-exams, in collaboration with lecturer Jaime Morales. Fall 2004. Tested in two Modern Physics Courses.
- Survey of Modern Physics. Introduction of web and powerpoint material for the teaching of PHYS 3325, Fall 2003.
- Alpha PIXE Spectroscopy. In-class demo for modern physics 2002. Tested in two Modern Physics classes in 2002.
- Modern Physics. Testing of three computer simulations to add an interactive component to the modern physics. With physics students Manuela Ortiz and Jazmin Dominguez. Testing occurred in 2001 and 2002.
- PHYS 5325. Design of distance-learning course and web-based material for UT Brownsville students, Fall 1999.
- UTEP-UT Brownsville Distance Learning Masters Program. Proposer, designer and director of the program. Memorandum of understanding reviewed in 2000, first graduate in 2002, second one in 2004.
- Termodinámica Nuclear. Preparation of a two-week course in Spanish for the 2nd Mexican Nuclear Physics School at Universidad Nacional Autónoma de México, Mexico City, 4/2001. Lecture notes published in a book.
- PSCI 3304. Design of course team-taught to education majors at Marion Manor Elementary in conjunction to ELED 3311. Fall 2000.
- Physical Science, introduction of science kits for elementary school in the class PSCI 3304, 1998.
- Modern Physics. Development of computer simulations to add an interactive component to the course Phys 3325.
- Nuclear, Particles and Relativity. Development of the curriculum for the new class Phys 3457. New physics course to use basic quantum mechanics to study applications in nuclear and particle physics. Relativistic kinematics was introduced. Spring of 1995.
- Computational Physics. To develop a computer laboratory with funding from the College of Science and from an IBM donation to the Physics Department, 1994.
- Introduction to Physics. Development of the curriculum for a new class Phys 2477. New physics course to introduce freshman physics majors to physics concepts and physics as a career. Fall 1994, 9 students.
- "Experiments for General Physics 4104", J. A. Lopez, Burgess International Group, 1994.
- "Experiments for General Physics 4103", J. A. Lopez, Burgess International Group, 1993.

Pre-K to 12 Level

- PHYS 2421. Development of podcasts (MP4 and WMV) for lecture delivery, 2009, supported by STEP UP NSF grant.
- Middle School Physics, Material for a two-day workshop for UTEP's MSP Staff Developers, 12/2005.
- Deepening Science Knowledge for High School Physics Teachers. Printed and Powerpoint material for a two-day bilingual workshop for teachers, 20 pages, July, 2005.
- Physics for Pre-K and K Students – Bilingual Seminar for Teachers. Printed and Powerpoint material for a bilingual seminar for teachers, 80 pages, June, 2005.
- "Universo - Almanaque Celestial 1996", published by McDonald Observatory of the University of Texas, 1/1/96. Contributed as technical editor.
- "Universo - Almanaque Celestial 1997", published by McDonald Observatory of the University of Texas, 1/1/96. Contributed as technical editor.
- "Universo" Compact Disks Audio material for general audiences. Pressed monthly describing the skies for many high schools and radio stations in the United States. Pressed by UT Austin/McDonald Observatory since the Fall of 1994. Contributed as technical editor. Since the Fall of 1994 to 2010.
- "La enseñanza de la física en pre-escolar", Activity guide prepared for a workshop on the "V Encuentro Estatal de Educación", Organized by Dirección de Educación Elemental del Gobierno del Estado de Chihuahua, Hotel Fiesta Inn, Ciudad Juarez, Chihuahua, Mexico, April 12, 2003, in Spanish.

RESEARCH

Dr. Lopez has performed research on nuclear physics, gravity waves, astrophysics, physics education, pre-K science teaching, materials science, and applications of scientific methods to social sciences including political science, anthropology and cultural heritage. Has had collaborations with researchers in Berkeley, CA, Buenos Aires and several institutions in Mexico. Has edited and written books and journal articles on research topics, has obtained funds for research activities, and organized regional, national and international meetings. In particular, he played a key role initiating the Latin American Symposium on Nuclear Physics and Applications, and in founding the Division of Radiation Physics of the Mexican Society of Physics.

SYNERGISTIC ACTIVITIES

- Reconstruction of the materials characterization laboratory. Project funded by The Department of Defense to refurbish surface physics research equipment such as Auger/XPS/SIMS spectroscopy PHI 560 ESCA/SAM Perkin Elmers; to date seven MS students have graduated with research based on such equipment.
- Latin American Symposium on Nuclear Physics and Applications. Invited by Dr. Laszlo Sajo Bohus (Universidad Simon Bolivar, Caracas, Venezuela) in 1995, Dr. Lopez participated in the creation and strengthening of the Symposium. Now in its 9th edition, the Symposium has been held in Venezuela, Colombia, Mexico, Brazil, Argentina, Peru, Chile and – in 2011— in Ecuador.
- Division of Radiation Physics of the Mexican Society of Physics. Invited by Drs. Efrain Chavez and Guillermo Espinosa (Universidad Nacional Autonoma de Mexico) in 2003, Dr. Lopez participated in the creation and strengthening of the Division. Now in its 9th year, the Division has organized meetings in Mexico City (three times), Chihuahua, Villa Hermosa, Zacatecas, and Cuernavaca.
- Donation of research equipment. Thanks to direct intervention of Dr. Lopez, 1) valuable pieces of an accelerator were donated by Oak Ridge National Lab to Mexico's Instituto Nacional de Investigaciones Nucleares, 2) an electron accelerator was donated by Texas Christian University to New Mexico State University, and 3) a proton accelerator was donated by Sandia National Lab to New Mexico State University.

BOOKS

1. J. A. Lopez, "2012 ¿Fraude Electoral? Estudios de los fraudes electorales en México", Universidad de Guadalajara, Guadalajara, Mexico, 2012, in print.
2. J. A. Lopez and C. O. Dorso, "Lecture Notes on Phase Transitions in Nuclear Matter", World Scientific, ISBN 981-02-4007-4, October, 2000, www.amazon.com/Lectures-Phase-Transformations-Nuclear-Matter/dp/9810240074.
3. J. A. Lopez, "2006 ¿Fraude Electoral? Estudios de las anomalías de la elección presidencial", Doble Hélice, Chihuahua, Mexico, 2009, ISBN 9786070011566, 208 pages. www.doblehelice.com.mx/Paginas/01229_2006_Fraude.html.

BOOKS EDITED

4. J.A. Lopez E. Chavez, M. Moshinsky and M.E. Borunda, Eds., Heavy Ion Phys., Vol. 16, 2002.
5. J.A. Lopez E. Chavez, M. Moshinsky, and M.E. Borunda, Eds., "Proceedings of the IV Latin American Symposium on Nuclear Physics", published by UACJ Press, ISBN 968-7845-36-8, September, 2001.

CHAPTERS AND ARTICLES IN BOOKS

1. "From nuclei to nuclear pasta", C.O. Dorso, P.A. Giménez Molinelli and J.A. López, chapter in book "Neutron Star Crust", Eds. C.A. Bertulani and J. Piekarewicz, 2012 Nova Science Publishers, Inc. [See preprint here](#)
2. J. A. Lopez, "Language and Technology in Preschool Education in Mexico", published as chapter 12 in "Technology and Young Children: Bridging the Communication-Generation Gap", Eds. S. Blake, D. Winsor and E. Allen, IGI Global Publishing, Hershey PA, ISBN 1-61350-059-9, 16 pages.
<http://www.igi-global.com/bookstore/titledetails.aspx?titleid=51924>
3. J. A. Lopez and M.E. Lopez, "Technology and Preschool Education in Mexico: A Country in Transformation", published as chapter 4 in "Early Childhood Education and Socialization: Developmental Applications and Methodologies", Eds. S. Blake and S. Taylor, IGI Global Publishing, Hershey PA, ISBN 1-60566-784-6, 2009, 27 pages.
www.igi-global.com/bookstore/chapter.aspx?TitleId=36623
4. M. Castro-Colin, J. A. Lopez, and S.K. Valaparla, "Elemental identification by x-ray fluorescence using a portable pyro-electric generator and a CdTe detector for an advanced laboratory course", published as chapter 5 in "Research in nanotechnology developments", Ed. A. Barrañón, Nova Science Publisher Inc., Hauppauge, NY, 2009, ISBN: 978-1-60741-028-7, www.novapublishers.com/catalog/product_info.php?products_id=9425&osCsid=d6bb4b8915f3e03fed93389818508de6.
5. J. A. Lopez, "Reacciones de Iones Pesados", published as chapter 1 in "Notas, IV Escuela Mexicana de Física Nuclear", Eds. A. F. Aguilera, E. Hernandez, and J. Hirsch, Univ. Nacional Autónoma de México, 2005, Pp. 1-13.
6. J. A. Lopez, A. Duarte-Moller, M. L. Lopez, W. Durrer, F. Lopez, S. Rodríguez, M. A. Ramos, P. Sánchez-Santiago and J. L. Gardea-Torresdey, "ExelFs characterization of gold nanoparticles, produced by esterified hop biomass deposited on Si substrates by the spray pyrolysis technique", published in "El Encanto de la Física de Radiaciones", Eds. E. Chávez, J. Aspiazu, and G. Espinosa, Universidad Nacional Autónoma de México, 2004, Pp. 89-104, refereed.
7. J. A. Lopez, A. Barrañón, R. Cárdenas, and C. O. Dorso, "Critical Fragmentation ", in "El Quehacer de la Ciencia", G. Espinosa G., Eds., published by UNAM Press, ISBN 970-32-0524-0, November, 2002, Pp. 104-111, refereed.
8. J. A. Lopez, "Termodinámica Nuclear", in II Escuela Mexicana de Física Nuclear, Aguilera, Chavez, Hess, Eds., Universidad Nacional Autónoma de México Press, Mexico City, April, 2001. Chapter two in a book for a graduate level course on nuclear physics.

JOURNAL ARTICLES

1. [Tecnología en la educación pre-escolar en México](#), J.A. López, Rev. Orientación Educacional (Chile), V 24 No. 46, Pp. 83-99, 2012.
2. Dorso, C. O., Giménez Molinelli, P. A., and López, J. A., "Isoscaling and the nuclear EOS", J. Phys. G: Nucl. Part. Phys. 38 (2011) 115101.
3. C.O. Dorso, P.A. Giménez Molinelli and J.A. López, "Searching for the origin of isoscaling: confinement and expansion", Rev. Mex. Fis., **S57** (1) 14-17, 2011.

4. J. A. Lopez Gallardo, "Tecnología en la educación pre-escolar en México", in print, Rev Orientación Educacional, ISSN 0716-5714, V. 23, N. 44, Apr. 2011, Pp. 53-61.
www.latindex.unam.mx/buscador/ficRev.html?opcion=1&folio=10365.
5. J.A. Lopez, J.A. Muñoz, & C.O. Dorso, "Probabilistic aspects of isoscaling", Rev. Mex. Fis., 56, S4, 85-88, 2010.
6. J. Becvar, B. Flores, K. Knaust, J.A. Lopez and J. Tinajero, "Implementing Peer Led Team Learning in Gateway Science and Mathematics Courses for Engineering Majors." American Society for Engineering Education. Issue AC 2010-1659. Page(s) 9.
7. Allen, Lee ; Blake, Sally ; Burkett, Candice ; Crow, Rene ; Lopez, Jorge A ; Gibbons, Andrew ; Grant, Michael ; Izumi-Taylor, Satomi ; Lee, Yu-Yuan ; Lopez, María E ; McMurtry, Zeldá ; Mims, Clif ; Morris, Vivian ; Smith, Cheri ; Windsor, Denise. (2010). "Technology Resources and Software Recommended for Young Children and Teachers and Evaluating Web Sites." IGI Global Publishing. Page(s) 217-232.
8. J. A. Lopez and B. Flores, "Líderes de aprendizaje y retención", Rev Orientación Educacional, ISSN 0716-5714, V. 23, N. 44, Dec. 2009, Pp. 53-61. www.latindex.unam.mx/buscador/ficRev.html?opcion=1&folio=10365.
9. M. Castro-Colín, W. Durrer, J. A. Lopez and L. A. Pinales, "Multifactor suppressing titanium nitride thin films analyzed through XPS and AES", Rev. Mex. Fis. S **54**(1) 36-41, 2008.
10. C. O. Dorso, C.M. Hernández, J.A. Muñoz and J. A. Lopez, "Isoscaling in the high temperature limit", Phys. Rev. **C78**, (2008) 034613-034617.
11. A. Barrañón, C. O. Dorso and J. A. Lopez, "Time Dependence of isotopic temperatures", Nuc. Phys. **A791**, 222-231, 2007.
12. A. Barrañón and J. A. Lopez, "Limit temperatures, spinodal decomposition and isospin in heavy ion collisions ", Intl. J. Math Models and Meth in App Sci, V1, 1, Pp. 11-15, 2007. <http://www.naun.org/journals/m3as/2007.htm>;
<http://wseas.blogspot.com/2008/02/international-journal-of-mathematical.html>
13. C. O. Dorso and J. A. Lopez, "Nonequilibrium effects in Isoscaling ", VI Latin American Symposium on Nuclear Physics and Applications, Series: AIP Conference Proceedings , Vol. 884, Eds. O. Civitarese, C. Dorso, G. García Bermúdez, A. J. Kreiner, A. J. Pacheco and N. N. Scoccola, 2007, XVII, ISBN: 978-0-7354-0388-8.
14. C. R. Escudero, J. A. Lopez* and C. O. Dorso, "Thermal Symmetry in Isoscaling", VI Latin American Symposium on Nuclear Physics and Applications, Series: AIP Conference Proceedings, Vol. 884, Eds. O. Civitarese, C. Dorso, G. García Bermúdez, A. J. Kreiner, A. J. Pacheco and N. N. Scoccola, 2007, XVII, ISBN: 9780735403888.
15. M. Castro-Colín, J.A. Lopez*, and R. Osegueda, "Identification of laser-induced Lamb waves", Rev. Mex. Fis. **S53**, Pp. 12-15, 2007.
16. A. Dávila, C. R. Escudero, J. A. Lopez and C. O. Dorso, "Geometrical aspects of isoscaling", Physica **A374**, Pp. 663-668, 2007, http://lanl.arxiv.org/PS_cache/nucl-th/pdf/0504/0504037.pdf.
17. P. Amore, A. de Pace and J. A. Lopez, "Analytical approximations to the spectra of quark-antiquark potentials", Journal of Physics G32, 1061-1071, 2006, http://arxiv.org/PS_cache/hep-ph/pdf/0602/0602114.pdf.
18. A. Barrañón, J. A. Lopez, F. L. Castillo-Alvarado, "Nuclear Matter Critical Temperature and Charge Balance ", in "Advances in Systems, Computing Sciences and Software Engineering", Proceedings of SCSS 2005, <http://www.cisse2005.org/eiae.aspx>, Sobh, Tarek; Elleithy, Khaled (Eds.) 2006, XIV, 437 p., Hardcover. ISBN: 1402052626, 2006, <http://www.springer.com/west/home/generic/search/results?SGWID=4-40109-22-173666731-0>
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20. A. Barrañón and J. A. Lopez, "Dynamical study of spinodal decomposition in heavy ion collisions", Proceedings of the 5th Latin American Symposium on High Energy Physics, Eds. C. J. Solano Salinas, O. Pereyra Ravinez, and R. Ochoa Jiménez, 2006, World Scientific, ISBN 981-256-731-3
21. M.E. Montero Cabrera*, L. Colmenero Sujo, L. Villalba, S. de la Cruz Gándara, J. Sáenz Peinado, M. Rentería Villalobos, L.H. Sanín Aguirre, E.F. Herrera Peraza, J. Lopez, J. L. Gardea-Torresdey, Rn-222 air concentrations in Chihuahua state (México) dwellings and in the U.S./Mexico border, Microchemical Journal. **81**. pp. 28-34, 2005.
22. A. Barrañón and J.A. Lopez*. "Efecto del isospin en la temperatura crítica de las colisiones de iones pesados", published in "Memorias de la IX Reunión Nacional de Física y Matemáticas", ESFM-IPN, May 2005.
23. A. Barrañón* and J.A. Lopez. "Parámetros isobáricos y modos de emisión en las colisiones de iones pesados", published in "IX Reunión Nacional de Física y Matemáticas", ESFM-IPN, May 2005.
24. A. Barrañón*, J. A. Lopez, and F. L. Castillo-Alvarado, "Estudio teórico del cambio de fase líquido-gas en la materia nuclear", in "Applied Math - Memorias, 1er Taller de matemáticas Aplicadas, Eds. F. J. Búlnes Aguirre, P.A. Tamayo Mesa, and E. Cauch Soriano, Instituto Politécnico Nacional, ISBN 970-36-0290-8, D.F., Mexico, Pp. 57-66, 2005.

25. A. Barrañón* and J. A. Lopez Gallardo, "Influencia del isospin en la temperatura crítica de la materia crítica nuclear", published in "Memorias del XIX Congreso Nacional de Termodinámica, Tecnológico", Apizaco, Mexico, Sept. de 2005.
26. Armando Barrañón*, J.A. Lopez and F. de L.Castillo, "Nuclear Matter Critical Temperature and Charge Balance", Proceedings of the International Joint Conferences on Computer, Information and Systems Sciences and Engineering, Dic. de 2005.
27. A. Barrañón* and J. A. Lopez, "Efecto del balance de carga en la temperatura crítica de la materia nuclear", Publisher in "Memorias del Congreso CINDET05", IIE-Cuernavaca, Mexico, Sept. 21-23, 2005.
28. A. Barrañón, J. Escamilla Roa, and J. A. Lopez, "Entropy in the nuclear caloric curve", Phys. Rev. C69, 014601, pp. 1-6, 2004.
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33. Armando Barrañón, Claudio O. Dorso, y Jorge A. Lopez, "Enfriamiento de Curvas Caloríficas en las Colisiones de Iones Pesados", Información Tecnológica, Vol. 14, No. 5, pp. 31-34, 2003.
34. A. Barrañón, R. Cárdenas, C. O. Dorso, and J. A. Lopez, "The Critical Exponent of Nuclear Fragmentation", Heavy Ion Physics 17, 1, 2003.
35. C. O. Dorso & J. A. Lopez, "Selection of critical events in nuclear fragmentation", Phys. Rev. C64, 027602, 2001.
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National and International Meetings

1. "Nuclear phase transformation liquid-gas", Mexican Academy of Sciences, IF-UNAM, Mexico City, Apr. 12, 2012.
2. "A surface study of plasma immersion ion implantation", VIII International Symposium on Radiation Physics, México City, Apr. 9, 2012.

3. "Educator of the Year Lecture: Physics and Art", Annual Meeting of the SHPE, Anaheim, CA, Oct. 28, 2011, <http://conference.shpe.org/shpe2011/stdprog/distinguished-lecture-undergrad>.
4. "Neutron-Rich Nuclear Physics", Annual Meeting of the SACNAS, San Jose, CA, Oct. 28, 2011, <http://sacnas.confex.com/sacnas/2011/schedule/index.cgi?password=10659sac&EmailAddress=jorgelopezgallardo%40hotmail.com&page=browse&action=schedule#view=Session1277&srch=words%7Cernst%7Cmethod%7Cand%7Cpge%7C1>.
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6. "Métodos matemáticos para análisis de elecciones", Congreso de matemáticas aplicadas a las ciencias sociales, Centro Universitario de Ciencias Sociales y Humanidades, Universidad de Guadalajara, Guadalajara, México, Mar. 12-13, 2011. <http://www.cucsh.udg.mx/Eventos/2011/pdfs/cmate11.pdf>
7. "Recruitment and retention of Hispanics in physics: a multifaceted approach", SPIN UP Workshop, AAPT, CalPoly State University, San Luis Obispo, CA, Jun. 27, 2010. www.aapt.org/Programs/projects/spinup/upload/SLO-Recruiting-and-Retaining-Hispanics.pdf.
8. "Origin of isoscaling: confinement and expansion", invited talk, VI Symposium on Radiation Physics, Latin American Workshop on Particle Accelerators, Zacatecas, Mexico D.F., 3/7-10/2010, www.smf.mx/~fr-smf/.
9. "Classical studies of nuclear isoscaling", contributed talk, Joint Meeting of APS Division of Nuclear Physics and Physical Society of Japan, Kona, Hawaii, 10/14/2009. <http://meetings.aps.org/Meeting/HAW09/Event/107850>.
10. "A study of nuclear isoscaling", invited talk, V Symposium on Radiation Physics, Latin American Workshop on Particle Accelerators, and Latin American Workshop on Nuclear Track Detectors, UNAM, Mexico D.F., Mar. 8-11, 2009, <http://www.smf.mx/~fr-smf/>.
11. "Nuclear Isoscaling", invited talk, delivered at the II Symposium of the Division of Radiations of The Mexican Physics Society, Chihuahua, Feb 26-Mar 2, 2006.
12. "A Classical Mechanics Study of Isoscaling", invited talk, delivered at the VI Latin American Symposium on Nuclear Physics, Iguazú, Argentina, Oct. 3-7, 2005. http://www.tandar.cnea.gov.ar/misc/SLAFNAP6.php?action=show_section§ion=Main.
13. Mentoring minorities in physics, invited talk delivered at the 2005 APS April Meeting, Session H2: Mentoring in Physics education, 4/17/2005, Tampa, FL, <http://meetings.aps.org/Meeting/APR05/Event/29001>.
14. Evolution of isoscaling, contributed talk delivered at the 2005 APS April Meeting, Session R12: Nuclear Reactions, 4/17/2005, Tampa, FL, <http://meetings.aps.org/Meeting/APR05/Event/29881>.
15. Reacciones de Iones Pesados, series of lectures presented at the IV Escuela Mexicana de Física Nuclear held at The Univ. Nacional Autónoma de México, 6/27-7/8/2005, <http://www.teorica.fisica.unam.mx/escuela-2005/>.
16. Analytical facilities at The University of Texas at El Paso, invited talk delivered at the "I International Symposium on Radiation Physics", held in ININ/UNAM Mexico City, Dec. 1-3, 2003.
17. "Entropy and Size in the Nuclear Caloric Curve", invited talk, delivered at the V Latin American Symposium on Nuclear Physics, Santos, Brazil, 9/1-5, 2003, <http://www.sbf1.if.usp.br/eventos/rffnb/xxvi/>.
18. Alpha Particle Induced X-Ray Emission in the Classroom, contributed talk delivered at the 17th International Conference on the Application of Accelerators in research and Industry, CAARI 2002, Denton, TX, USA, Nov. 12-16, 2002.
19. "La nueva termodinámica", plenary talk delivered at the XLIV National Meeting of the Mexican Society of Physics, Morelia, Michoacan, Mexico, Oct. 2001.
20. "Development of pre-service teachers constructive pedagogical thinking", plenary talk presented by Arturo Pacheco, Mourat Tchoshanov, Sally Blake and Jorge Lopez at the International Conference on Intellectual Potential of a Society and Development of Students, Kazan, Russia, May 16-18, 2001.
21. "Teaching science using a field-based prospective", invited talk presented by Jorge Lopez at the Tatar State Institute for Professional Development of Educator (Leon Tolstoi's House) in the International Conference on Intellectual Potential of a Society and Development of Students, Kazan, Russia, May 16-18, 2001.
22. "Searching for criticality in nuclear fragmentation", invited talk, delivered at the XXIV Symposium on Nuclear Physics, Taxco, Mexico, Jan. 3-6, 2001.
23. "The caloric curve in collision", contributed talk, National Meeting of the American Physical Society, Long Beach, California, April 29 - May 2, 2000.
24. "Boiling Nuclei", invited Talk to be delivered at the meeting of the National Society of Hispanic Physicists, Portland, Oregon Oct. 1999.
25. "Preliminary Results of Latino", invited Talk to be delivered at the Third Latin-American Workshop on Nuclear and Heavy Ion Physics, San Andres, Colombia. Sept. 1999.

26. "Transition State Treatment of Nuclear Fragmentation", Invited Talk, Third Latin-American Workshop on Nuclear Physics, Ed. L. Sajo Bohus, San Andres, Colombia, Sept. 1999.
27. "Latino: a semi-classical model to study heavy ion reactions", XXII Symposium on Nuclear Physics, Oaxtepec, Mexico, January 4-9, 1999.
28. "Breaking Nuclei", invited talk, American Physical Society, Columbus, Ohio, during April 18-21, 1998.
29. "Fragmentation Landscapes", contributed talk, Meeting of the American Physical Society, Columbus, Ohio during April 18-21, 1998.
30. "Mapping the Nuclear Phase Diagram", invited talk, Symposium on the Nuclear Equation of State in the Meeting of the Canadian-American-Mexican Physics Societies, Washington, D.C. April 1997.
31. "Phase Diagram of Nuclear Matter", invited Talk, Second Latin-American Workshop on Nuclear and Heavy Ion Physics, Caracas, Venezuela. Sept. 1997.
32. "Potentials for the Hadron Gas", invited Talk, Second Latin-American Workshop on Nuclear and Heavy Ion Physics, Caracas, Venezuela. Sept. 1997.
33. "Busqueda de Ondas Gravitacionales", invited talk, Semana de Matemáticas y Astronomía, Univ. Autónoma de Ciudad Juárez, 4/7/97.
34. "Search for Gravity Waves using the Pioneer 1993 Tracking Data", invited talk, Pioneer Users Meeting, University of Chicago, Chicago, Il, July 24-25, 1996.
35. "Transition State Treatment of Nuclear Fragmentation", invited talk, First Latin-American Workshop on Nuclear Physics, Ed. L. Sajo Bohus, Universidad Simon Bolivar, Caracas, Venezuela. Sept. 1995.
36. "Fragmentation Volume", XVIII Symposium on Nuclear Physics, Oaxtepec, Mexico, January 4-7, 1995.
37. "Nuclear Fragmentation", invited talk, Meeting of the Assoc. of Black Physics Students, 2/94, Atlanta, GA.
38. "Hispanics in Physics", invited talk presented at the Forum on Education "Diversity at the Classroom", at the Joint Meeting of the American Physical Society and the American Association of Physics Teachers, April Meeting of APS, Crystal City VA, 4/94.
39. "Nuclear Fragmentation", invited talk, Joint Meeting of the American Physical Society and the American Association of Physics Teachers, 4/1993, Wash., DC.
40. "Physics Circus", presented at the 1993 SACNAS Conference, January 1993, Albuquerque, New Mexico.
41. "Breakup of Excited ^{16}O into Four at Intermediate Energies", contributed talk, Meeting of the Division of Nuclear Physics of the American Physical Society, October 14-16, 1992, Santa Fe, New Mexico.
42. "Breakup of Small Projectiles", invited talk, Argentinean Workshop on Nuclear Physics, September 14-18, 1992, Buenos Aires, Argentina.
43. "Nuclear Spinodal Decomposition", invited talk, XV Symposium on Nuclear Physics, 1/1992, Oaxtepec, Mexico.
44. "Cumulos Galacticos y la Materia Faltante", 4th. Annual Astronomy Week of the "Sociedad Astronomica Juarensis", May 28, 1991, Juarez, Mexico.
45. "Transition State Treatment of Nuclear Fragmentation", invited talk, XIV Symposium on Nuclear Physics, January 7-10, 1991, Cuernavaca, Mexico.
46. "Sequential Breakup of Small Nuclear Projectiles", invited talk, 6th Winter Meeting Workshop on Nuclear Dynamics, February 17-24, 1990, Jackson, Wyoming.
47. "From Fission to Multifragmentation", invited talk, Nuclear Chemistry Symposium of the 197th National Meeting of The American Chemical Society April 10-14, 1989, Dallas, Texas.
48. "Fission Versus Multifragmentation", Gordon Conference on Nuclear Structure, 7/1988, Tilton, New Hampshire.
49. "A Complete (?) Model for Heavy Ion Reactions", invited talk, Meeting of the CHIC Collaboration, April 1987, Bergen, Norway.
50. "Pions and Fragmentation", invited talk, Workshop on Nuclear Physics at Intermediate and High Energies, May 1986, Budapest, Hungary.
51. "Phase Transitions in Nuclear Matter", invited talk, 189th Meeting of the American Chemical Society, May 1985, Miami, Florida.
52. "The Quark Gluon Plasma", invited talk, VII Symposium on Nuclear Physics, January 1985, Oaxtepec, Mexico.
53. "Screening in the QCD Plasma", Gordon Conference on Nuclear Structure, August, 1984, Tilton, New Hampshire.
54. "Nuclear Fragmentation", invited talk, VI Symposium on Nuclear Physics, January, 1984, Oaxtepec, Mexico.

Regional Meetings

55. "Nuclear isoscaling and fair sampling", invited talk, 2008 Joint Fall Meeting of the Texas and Four Corners Sections of APS, AAPT, and Zones 13 and 16 of SPS, NSHP and SNBP, El Paso, Oct. 17, 2008, <http://meetings.aps.org/Meeting/TS4CF08/Event/92524>.

56. "Nuclear isoscaling ", in II Jornada de Física y Matemáticas, Univ. Autónoma de Ciudad Juárez, Apr. 25, 2008.
57. "La enseñanza de la física en pre-escolar ", talk presented at the "V Encuentro Estatal de Educación", organized by Dirección de Educación Elemental del Gobierno del Estado de Chihuahua, Ciudad Juarez, Mexico, 4/12/2003.
58. "Nuclear Reactions", talk presented at the Annual Meeting of the Zone 16 of the Society of Physics Students, University of Texas at El Paso, El Paso, Texas. Oct. 25-26, 2002.
59. Workshop "Computer Simulated Experiments for Modern Physics", Conference for the Advancement of Science teaching: CAST 2002, UTEP, Saturday, 9/11/2002.
60. Workshop "Computer Simulated Experiments for Modern Physics", Conference for the Advancement of Science teaching: CAST 2002, UTEP, Saturday, 9/11/2.
61. "Nuclear liquid-gas transformation", Plenary Talk. Meeting of the Texas Section of the American Physical Society, Rice University, Houston, Texas. Oct. 28-29, 2000.
62. "The caloric curve in collision", contributed talk, Meeting of the Texas Section of the American Physical Society, Rice University, Houston, Texas. Oct. 28-29, 2000.
63. "Computer Simulations for Modern Physics", Neat Networks '99 conference, held at the University of Texas at El Paso, El Paso, Texas, Apr. 29 to May 1, 1999.
64. "Nuclear Caloric Curve", contributed talk, Meeting of the Texas Section of the American Physical Society, in Austin, Texas. Oct. 28, 1999.
65. "Separable Potentials for the Hadronic Phase", contributed talk, Meeting of the Texas Section of the American Physical Society, in Denton, Texas. Oct. 10, 1997.
66. "Computer Simulations for Modern Physics", contributed talk, Meeting of the Texas Section of the American Physical Society, in Arlington, Texas. Oct. 11, 1996.
67. "Preferred Decays in Nuclear Fragmentation", contributed talk, Meeting of the Texas Section of the American Physical Society, in Arlington, Texas. Oct. 11, 1996.

COLLOQUIA AND SEMINARS

63. "From nuclei to nuclear pasta ... in stars!", Bradley U., Mar. 23, 2012.
64. "The new nuclear physics: nuclei with excess neutrons", Univ. California Riverside, 5/12/2011.
65. "Quantum Mechanics and consciousness", Philosophic Systems Institute, El Paso, TX, 4/22/2011, http://www.philosophicsystemsinsitute.com/http_www.godaddy.com_events/events.html.
66. "Recruitment and retention of Hispanics in physics", California State University Fresno, Mar. 18, 2011.
67. "Métodos matemáticos para datos electorales", Centro Universitario de Ciencias Exactas e Ingenierías, Universidad de Guadalajara, Guadalajara, México, Mar. 13, 2011.
68. "Métodos matemáticos para datos electorales", Centro Universitario de Ciencias Económico Administrativas, Universidad de Guadalajara, Guadalajara, México, Mar. 12, 2011.
69. "Physics and art", California State University San Marcos, San Marcos, CA, 9/30/2010. www.csusm.edu/news/articles/nr_FrontSciFall2010.html.
70. "Origin of Nuclear isoscaling", Univ. Autónoma de Colima, Colima, Colima, México, May 7, 2010.
71. "The new nuclear physics", Univ. North Carolina Wilmington, 4/9/2010. <http://appserv02.uncw.edu/news/atuncw/annview.aspx?id=5927>.
72. "Physics and art", Univ. North Carolina Wilmington, 4/9/2010, <http://appserv02.uncw.edu/news/atuncw/annview.aspx?id=5927>.
73. "Fraude Electoral", Physics Department, Universidad Autónoma de Zacatecas, Zacatecas, México, Mar 7, 2010.
74. "2006, Electoral Fraud?", University of Texas at Brownsville, Brownsville, TX, Feb. 19, 2010.
75. "The new nuclear physics and isoscaling", University of Texas at Brownsville, Brownsville, TX, Feb. 19, 2010. <http://www.phys.utb.edu/seminars/schedule.shtml>.
76. Lopez, J. A., Book Presentation in Chile, "Scientific studies of electoral data," Facultas de Ciencias Jurídicas y Sociales, Universidad de Concepción, Concepción, Chile. (December 17, 2009).
77. "2006, Electoral Fraud?", University of Texas at El Paso, El Paso, TX, Oct. 29, 2009.
78. Lopez, J. A., Book Presentation in Aguascalientes, México, "Scientific studies of electoral data", Facultad de Ciencias Políticas, Universidad Autónoma de Aguascalientes, Aguascalientes. México. (August 20, 2009).
79. Lopez, J. A., Colloquium at Valparaiso, Chile, "The use of Peer Leaders in science teaching", Universidad de Playa Ancha, Valparaiso, Chile. (August 20, 2009).
80. Lopez, J. A., Book Presentation in Cd. Juárez, México, "Scientific studies of electoral data", Facultad de Ciencias Políticas, Universidad Autónoma de Cd. Juárez, Cd. Juárez, México. (June 17, 2009).

81. Lopez, J. A., Colloquium at Texas Tech, "Physics and Art," Texas Tech, Lubbock, Texas. (May 2009).
82. "Física Electoral", delivered at the "Semana de Ingeniería", Universidad Autónoma de Ciudad Juárez, 9/25/2008.
83. "Nuclear isoscaling", Universidad Autónoma de Colima, Colima, Colima, México, May 7, 2008.
84. "Origin of isoscaling ", Michigan State University, Jan. 30, 2008.
85. " Origin of isoscaling ", Argonne National Lab., Argonne, Illinois, Jan. 28, 2008.
86. "Physics at UTEP", Bradley University, Peoria, Il, Nov. 17, 2007.
87. "Physics and Art", Bradley University, Peoria, Il, Nov. 16, 2007.
88. "Physics and Art", Southern Illinois University, Nov. 14, 2007.
89. "Physics at UTEP", Universidad Autónoma de Sinaloa, Culiacán, Sinaloa, Mexico, May 29, 2007.
90. "Física Nuclear ", delivered at the "Semana de Ingeniería", Universidad Autónoma de Ciudad Juárez, 9/19/2006.
91. "Nuclear Isoscaling", Universidad Autónoma de Colima, Colima, México, 5/3/2006.
92. "Physics at UTEP", Universidad Autónoma de Baja California, Ensenada, Mexico, 21/Nov/2005.
93. "Los Errores de Einstein", Universidad Autonoma de Colima, Colima, Mexico, 3/May/2005.
94. "Physics at UTEP", Universidad Autónoma de Sonora, Hermosillo, Sonora, Mexico, 23/Nov/2004.
95. "A classical MS model of heavy ion reactions ", Arkansas State University, Jonesboro, AR, Oct. 7, 2004.
96. "UTEP's Radio telescope ", Universidad Autonoma de Colima, Colima, Mexico, 4/15/2004.
97. "A model for nuclear matter ", Universidad Autonoma de Colima, Colima, Mexico, 7/10/2003.
98. "Termodinámica de Microsistemas", delivered at the "7a Semana de Ingeniería", Univ. Aut. Cd. Juárez, 9/17/2002.
99. "Critical exponents of nuclear fragmentation", Instituto de Fisica, Univ. Nac. Aut. Mexico, Mexico, 6/30/2002.
100. "Critical exponents of nuclear fragmentation", Inst. Nacional de Investigaciones Nucleares, Mexico 7/2/2002.
101. "Criticality in nuclear fragmentation ", Universidad de La República, Montevideo, Uruguay, Mar. 8, 2001.
102. "Nuclear liquid-gas transformation", Department of Physics, Western Kentucky University, Nov. 21, 2000.
103. "Search of gravity waves", Physics Dept., St. Edwards University, Austin, Texas, 10/5/2000.
104. "Aztec astronomy", School of Natural Sciences., St. Edwards University, Austin, Texas, 10/5/2000.
105. "Background radiation", delivered at the 6ta Semana de Ingeniería, Univ. Autónoma de Ciudad Juárez, 9/21/2000.
106. "Criticality in nuclear fragmentation", Instituto Nacional de Investigaciones Nucleares, Salazar, Mexico 8/24/2000.
107. " Criticality in nuclear fragmentation", Instituto de Fisica, Univ. Nac. Aut. Mexico, Mexico, 8/23/2000.
108. "Physics Education", Physics Dept., Southern Illinois University, Carbondale, Illinois, October 1, 1999.
109. "Ultrasound diagnostics for airplane fuselages", Univ. Aut. de Cd. Juarez, Cd. Juarez, Mexico, 9/24/1999.
110. "Computer simulations", to be delivered at Univ. Aut. Metropolitana, Mexico, November 23, 1999.
111. "Search of Gravity Waves", Physics Dept., University of Texas at Brownsville, Brownsville, Texas, 4/8/99.
112. "Caloric Curve in Nuclear Fragmentation", Universidad de Buenos Aires, Buenos Aires, Argentina, July, 1999.
113. "Gravity Waves", Physics Dept., Texas Tech University, Lubbock, Texas, Nov. 1998.
114. "Simulaciones de Fisica Moderna", 50th Anniversary, Inst. Tecnológico de Durango, 5/14/1998, Durango, Mexico.
115. "Nuclear Fragmentation", Physics Dept., Texas Christian University, Forth Worth, Texas, 4/16/97.
116. "Probability Landscapes in Nuclear Fragmentation", Tandem Accelerator, Buenos Aires, Argentina, 6/18/ 1997.
117. "Phase Changes in Nuclear Fragmentation", Universidad Nacional de Buenos Aires, Bogota, Colombia, 9/12/1997.
118. "Phase Diagram of Nuclear Matter", Physics Dept., University of Maryland, College Park, Maryland, 3/10/1996.
119. "Math Phys", Club Zero, Math. Department, Univ. Texas at El Paso, April 5, 1996.
120. "Computer simulations", delivered at Universidad Autónoma Metropolitana, Mexico City, Mexico, 11/23/1999.
121. "Exploding stars", Physics Department, Moorehead State University, Moorehead, Minnesota, Mar. 27-29, 1995.
122. "Mapping the nuclear phase diagram", Physics Dept., Hampton University, Hampton, Virginia, December 12, 1995.
123. "Nuclear fragmentation", Physics Dept., Sam Houston State University, 10/94, Huntsville, TX.
124. "Pre-transition particle emission in nuclear fragmentation", National Superconducting Cyclotron Lab., Michigan State University, East Lansing, Michigan, 6/1994.
125. "TST treatment of nuclear fragmentation", Physics Dept., Vanderbilt University, 2/94, Nashville, Tennessee.
126. "TST treatment of nuclear fragmentation", Physics Dept., Tennessee Tech., 2/94, Cookeville, Tennessee.
127. "Nuclear fragmentation", Physics Dept., Sam Houston State University, Huntsville, Texas, October, 1994.
128. "Self-similar expansion of nuclei", Nuclear Theory Group, Lawrence Berkeley Laboratory, 7/1993, Berkeley, CA.
129. "Nuclear fragmentation", Universidad Autonoma de Nuevo Leon, 5/1993, Monterrey, Mexico.
130. "Breakup of small nuclear projectiles", Physics Department, New Mexico State Univ., 4/1993, Las Cruces, NM.
131. "Breakup of small nuclei", Instituto de Fisica, Universidad Autonoma de Mexico, May 26, 1992, Mexico City.
132. "Hot zone formation in heavy ion collisions", Cyclotron Inst., Texas A&M Univ., 11/1991, College Station, TX.
133. "Transition state treatment of nuclear fragmentation", New Mexico State Univ., Feb. 14, 1991, Las Cruces, NM.
134. "Nuclear fragmentation", Physics Department, University of Texas at El Paso, March, 1990, El Paso, Texas.
135. "Nuclear multifragmentation", California State University - Hayward, February, 1989, Hayward, California.

136. "Nuclear multifragmentation", California Polytechnic State Univ., February, 1989, San Luis Obispo, California.
137. "Nuclear multifragmentation", Physics Department, California State University - San Jose, 3/1989, San Jose, CA.
138. "Recent developments in nuclear multifragmentation", Texas A&M University, April 1989, College Station, Texas.
139. "Nuclear Molecular Calculation for Disassembly of Nuclear Matter", Zentralinstitut für Kernforschung, October, 1986, Rossendorf, Former East Germany.
140. "Quark Gluon Plasma in Linear Response Theory", Technische Universität München, May 1986, Munich, Germany.
141. "Relativistic Heavy Ion Collisions", Università degli Studi di Milano, November 1985, Milano, Italy.
142. "The Quark Gluon Plasma", Physics Department, University of Texas at El Paso, February 1985, El Paso, Texas.

ORGANIZATION OF MEETINGS

Meetings organized

1. The IV Latin-American Symposium on Nuclear Physics, with Efraín Chávez and Marcos Moshinsky, held at El Colegio Nacional, Mexico City, Sept. 24-28, 2001. 112 attendants from 20 countries. Funded by NSF, Trieste (Italy), Conacyt (Mexico), Soc. Mex. Fis. (Mexico).
2. "From K-16 Partnership to the Classroom: Workshop on Planning and Implementing Field-Based Courses in Math and Science", with Arturo Pacheco, Tom Brady, Sally Blake, Mourat Tchoshanov, Art Duval, Steve Sanchez, Connie Kubo Della-Piana, Erandi Perez, UTEP, El Paso, Aug. 2001.
3. Meeting of the National Society of Hispanic Physicists, Portland, Oregon, October 7-10, 1999.
4. Member of Organizing Committee of the Texas Leadership Institute (TexLI) for K-8 Science Education, a program of the Teacher-Scientist Alliance Institute of the American Physical Society, Austin, Texas, 4/30 to 5/5, 1999.
5. Joint Meeting of the Texas Sections of the American Physical Society, The American Association of Physics Teachers, and The Society of Physics Students. Held at UTEP from Oct. 15-17, 1998. Attendance 204 plus many unregistered local high school teachers.
6. I Semana de Ciencia Y Tecnología, by Sociedad Mexicana para el Progreso de la Ciencia y la Tecnología, at the Universidad Autónoma de Ciudad Juárez, Apr. 20-24, 1998, Juárez, México.
7. Corporate Scholars Workshop, Committee on Minorities of the American Physical Society, 10/1-3/1993, Hampton, VA.

Chairmanship

1. Chair, Nuclear Physics Session, 2011 Joint NSHP-NSBP meeting, Austin TX, Sep. 21-24, 2011.
2. Chair, Session H5 High Energy Physics: Experimental, 2008 Joint Fall Meeting of the Texas and Four Corners Sections of APS, AAPT, and Zones 13 and 16 of SPS, and the Societies of Hispanic & Black Physicists, held at The University of Texas at El Paso, Oct. 18, 2008.
3. Chair, Session "Nuclear Thermodynamics and Dynamics", VI Latin American Symposium on Nuclear Physics, Iguazú, Argentina, 10/6/2005. http://www.tandar.cnea.gov.ar/misc/SLAFNAP6.php?action=show_section§ion=Main.
4. Chair, Friday Morning session, V Latin American Symposium on Nuclear Physics, Santos, Brazil, Sept. 5, 2003, <http://www.sbf1.if.usp.br/eventos/rtfnb/xxvii/>.
5. Chair, session A3, meeting of the Texas Section of the American Physical Society, held at University of Texas at Brownsville, Brownsville, Texas, Oct. 10-12, 2002.
6. Chair, High Energy Physics Session, meeting of the Texas Section of the American Physical Society, held at Stephen F. Austin State University, Nacogdoches, Texas, Mar. 7-9, 2002.
7. Chair, plenary session, meeting of the Texas Section of the American Physical Society, held at Texas Christian University, Fort Worth, Texas, Oct., 2001.
8. Chair of Session 3, XXIV Symposium on Nuclear Physics", Taxco, Mexico, Jan. 3-6, 2001.
9. Chair, nuclear physics II session, XLIV Annual Meeting of the Mexican Soc. Physics, Morelia, Mexico, 10/2000.
10. Chair, "Session 2: Nuclear Structure", Third Latin-American Workshop on Nuclear and Heavy Ion Physics, Universidad Nacional de Colombia, San Andrés, Colombia, Sept. 13, 1999.
11. Chair, "IV LWNHIP and Beyond", Third Latin-American Workshop on Nuclear and Heavy Ion Physics, Universidad Nacional de Colombia, San Andrés, Colombia, Sept. 17, 1999.
12. Chair, session "Physics in Mexico", Meeting of the Texas Section of the American Physical Society, to be held at UTEP, October 15-17, 1998.

13. Chair, Session CC on High Energy/Particle Physics II, Meeting of the Texas Section of the American Physical Society, Denton, Texas, Oct. 10, 1997.
14. Chair, Invited Symposium on Nuclear Physics, Joint Meeting of the Canadian-American and Mexican Physics Societies, Washington, D.C., in April, 18-21, 1997.
15. Chair, Invited Symposium on "Physics of Reduced Dimensionality", Meeting of The American Physical Society, San Jose, CA, Mar. 21, 1995.
16. Chair of Symposium, Meeting of the American Physical Society, Crystal City, VA, 4/94.
17. Chair, Invited Symposium "Researchers at the Leading Edge", Meeting of the American Physical Society, Crystal City, VA, 4/94.
18. Chair of Symposium, Meeting of the American Physical Society, Pittsburgh, PA, 3/94.

Advisory Boards

1. Member, International Advisory Committee, Symposium on Nuclear Physics, Cocoyoc, Mexico, 1995 and from 2001 to date. <http://www.smf.mx/~dfn-smf/Cocoyoc2011/announcements.php.html>
2. Member, External Advisory Board, Center for Gravitational Wave Astronomy, University of Texas at Brownsville, Mar. 1, 2011.
3. Member, Int. Advisory Committee, Symposium on Radiation Physics, 2003 to date, www.smf.mx/~fr-smf/.
4. Member, International Advisory Committee, Pan-American Advanced Study Institute on Rare Nuclear Isotopes, held in Joao Pessoa, Brazil, October 2010. <http://meetings.nscl.msu.edu/pasi2010/>
5. Member, Advisory Board, San Diego Science Festival, San Diego, 2009.
6. Member, International Advisory Committee, Latin-American Symposium on Nuclear Physics, 1997, 1999, 2003, 2005, 2009. <http://servicios3.ing.uchile.cl/slafna/index.php>.
7. Member, Advisory Board of book "Early Childhood Education and Socialization: Developmental Applications and Methodologies", Eds. S. Blake and S. Taylor, IGI Global Publishing, Hershey PA, 2009.
8. Member, Advisory Board, Scientific Partnership for International Research on Inquiry Thinking (SPIRIT), 008-2010, <http://inquirythinking.googlepages.com/>.
10. Member, Cuerpo Consultivo Internacional, Revista de Orientación Educacional, Universidad de Playa Ancha, Valparaiso, Chile, from 2008 to date. <http://educacion.upla.cl/orientacion/revistaorientacion.htm>.
11. Member, International Advisory Committee, Varenna Conference on Nuclear Reaction Mechanisms, 6/ 9-13/2003.
12. Member of The International Scientific Advisory Committee, Pan-American Advanced Studies Institute on Computational Materials Science, Pontificia Universidad Católica de Chile, Santiago, Chile, 1/8-19/2001 www.iitap.iastate.edu/iitap/pasi.html.
13. Member, Board of Advisors, Project ASTRO "El universo en sus manos", Astronomical Soc. Pacific, 4/2001 – 4/2002
14. Member, Organizing Committee of the Texas Leadership Institute (TexLI) for K-8 Science Education, a program of the Teacher-Scientist Alliance Institute of the American Physical Society, Austin, Texas, Apr. 30 to May 5, 1999.
15. Member, Texas Leadership Institute (TexLI) for K-8 Science Education, 1998 (Austin), 1999 (Austin).
16. Member, Educational Task Force, NASA's Office of Space Science, 1995 (Washington, D.C.), 1996 (Annapolis, VA), 1996 (Las Cruces).

DEVELOPMENT OF RESEARCH FACILITIES

1. Acquisition of portable XRF, Fall 2008.
2. Acquisition of 150 MeV electron accelerator, Fall 2007, from Texas Christian, with Miguel Castro-Colin.
3. Reconstruction of the Physics Computer Laboratory, acquisition of twelve new computers, with R. Ravelo, Spring 2006
4. Reconstruction of the Advanced Laboratory, with M. Castro Colin, Fall 2005 – date
5. Radio Astronomy. Construction of a radio telescope for PHYS 3243, with Luis Basurto, spring 2005 to date.
6. Reconstruction of a Laboratory For Surface Studies, with W. Durrer, 2002-2003, funded with \$119,000 from DOD grant.

7. PIXE with Alpha from Americium, development of experimental setup with UG students Mario Borunda and Manuel Antonio Ramos, Fall 2001 and Fall 2003.
8. X-ray detector, a multichannel analyzer and power supply, 1997.
9. Computational Physics. Equipment used in research in computational physics acquired with funding from many sources and donations. Equipment includes:
 - IBM workstation RS/6000 model 370, obtained with funding from UTEP's College of Science. 1995.
 - IBM Donation composed of an IBM workstation RS/6000 model 320 and four X-terminals, 1995.
 - Four X-Terminals, added to IBM RS/6000 system, from the Jet Propulsion Laboratory, 1994.
 - Power Macintosh 7600/132, obtained with funding from UTEP's MIE. Fall 1996.
 - Six Sun workstations (model LC II), NASA Network Resource and Training Sites grant, 1996.
 - IBM F50 workstation, (cost over \$24,000), NSF funding, 5/1997.
 - Sparc Sun workstations (model Ultra 5), with funding from the NASA Network Resource and Training grant, 1997.
 - 3 IBM P43 workstations, transferred from UTEP UGLC's UNIX lab to physics, 9/99.

GRANTS

Dr. Lopez has been the PI and co-PI in 105 grant proposals for research, education and outreach activities; 37 proposals have been funded for a total of over \$3,700,000.

FUNDED PROJECTS

1. Isospin dependence of the nuclear equation of state, PI: J. Lopez, National Science Foundation, \$186,000, Awarded for period 8/1/2011-7/30/2014.
2. Hispanic Physics Radio Education Project, PI: J.A. Lopez, co-PI: Arturo Vazquez (Ixtilan Communications), American Physical Society, \$10,000, Feb. 2011.
3. Materials Characterization, PI: J.A. Lopez, UTEP's URI program, \$5,000, Sep. 2010.
4. An Integrative Science Success, Teaching and Retention Program for STEM Education, PI: B. Flores, co-PIs: J. Becvar, H. Knaust, J. Lopez and J. Tinajero, NSF-DUE, \$1,964,912, awarded for period 9/15/2007 to 9/14/2012.
5. Minorities in Radiation Oncology Physics, Pls: M. Manciu and R. Waggner (UTHSCSA), co-PIs: J. Lopez, NIH-RFA-CA05-020, \$535,000.
6. Student Sponsorship at the Fifth Latin American Symposium on Nuclear Physics, Pls: P. Cole and J. Lopez, , NSF-International Programs, \$18,000, submitted on 16/12/2003.
7. Modern Physics Simulations, utep MIE's Undergraduate Research Stipends Program, \$12,000 for the period of 1/1/02 to 12/31/03.
8. Nuclear fragmentation, utep MIE's Undergraduate Research Stipends Program, \$6,000 for the period of 1/1/02 to 12/31/03.
9. Development of a Laboratory for Research and Graduate and Undergraduate Education in Surface Studies, with W. Durrer, DoD program, \$119,000, 9/1/2002-8/31/2003.
10. Assessing Virtual Experiments in High School and Preparatoria Students, \$1,705.60, UTEP CIABS, from 9/2000 to 8/2001.
11. Computer Simulations, submitted to UTEP CETAL for \$6,500, 4/2001 to 5/2002.
12. J.A. Lopez, "Physics 2000", UTEP Center for Border Studies, for \$1,750, 1/00 to 6/00.
13. J.A. Lopez, "Web Physics Rendezvous", submitted to NASA-MUSPIN Internet-Based Education/Research Program, on 9/30/98, for \$10,000 for the period of 11/99 to 5/99.
14. Hands-on Physics Activities for K-6th Grade Dual Language Classes. \$12,000, Ysleta School District, Sept.. 1999.
15. J.A. Lopez, "Support for Hispanic Faculty", submitted to the Committee on Minorities of the American Physical Society, for \$2,000 to support travel expenses for the attendance to the TSAPS-El Paso meeting, Oct., 1998.
16. Cooperative Research Program to Study Heavy Ion Reactions, The National Science Foundation and Argentina's CONICET (with C. Dorso), \$32,780 for the period of 6/97 to 4/2001.
17. J.A. Lopez, "Visit to South American Institutions", submitted to UTEP's College of Science and Graduate College, for \$800 for the period of 9/1 to 9/14, 1997.
18. RUI: A Study of Heavy Ion Reactions, The National Science Foundation, requesting \$161,002 for a total project cost of \$182,702, funded with \$90,000, for the period of 6/96 to 4/2001.
19. Computer-Based Laboratory for Modern Physics \$88,574, The National Science Foundation DUE-ILI-LLD Program, funded in 9/1996.
20. J.A. Lopez, "Detection of Gravity Waves by Autocorrelation Techniques", submitted to the Jet Propulsion Laboratory, requesting \$52,439 for a total project cost of \$66,439 for the period of June 1994 to May 1996. Funded with \$21,600.
21. Physics Workshop for Teachers from Durango Mexico proposal submitted in collaboration with C.H. Cooper to CIABS for \$300 to support Mexican teacher to come to UTEP for a laboratory workshop. Awarded by UTEP's Center for Inter-American and Border Studies in 6/1996.
22. Computer-Based Modern Physics Laboratory \$9,868, UTEP's Model Institution of Excellence, funded in 6/96.
23. Computer-Based Laboratory for Modern Physics \$88,574, The National Science Foundation DUE-ILI-LLD Program, funded in 9/96 for the period 9/96 – 8/99.

24. "PAPF: Society of Hispanic Physicists", Sloan Foundation award of \$29,200 given by to J.D. Ernst, J.A. Lopez, and C. Ordonez for the formation of a Society of Hispanic Physicists for the period of 9/95 to 5/97.
25. D. Shapira, J. Gomez del Campo, J. McConnell, and J.A. Lopez, "Studies of Heavy Ion Collision Dynamics", submitted to The National Science Foundation in collaboration with Oak Ridge National Laboratory, requesting \$20,000 for the period of 9/94 to 8/96.
26. J.A. Lopez, "AWU Faculty Fellowship", requested to Associated Western Universities (sponsored by the US Department of Energy) on February 1992, \$10,000 for the period of July 1, 1993 to August 31, 1993.
27. J.A. Lopez, "Transition State Treatment of Nuclear Fragmentation", submitted to The National Science Foundation, requesting \$77,394 for a total project cost of \$89,374, for the period of June 1, 1993 to May 31, 1995. Funded for \$54,000.
28. Excellence in Technology, Engineering, and Science Grant NASA PACE/MSET Grant, in collaboration with J. M. Herrera, S. Stafford, W. Fisher, and L. Diaz-Rios, \$300,000. Funded for the period 9/95 to 8/98.
29. Computational Physics, \$6,800, submitted to the College of Science, funded in 9/94.
30. NASA Physics Centers, \$84,000, funded by NASA Johnson Space Center, from 9/94 to 1997. To do outreach activities, including math and physics tutoring at five high schools through the "NASA Physics Centers" established at each of the selected high schools.
31. J.A. Lopez, "AWU Faculty Fellowship", requested to Associated Western Universities (sponsored by the US Department of Energy) on February 1992, \$9,000 for the period of June 1, 1992 to July 31, 1992.
32. J.A. Lopez, "Nuclear Projectile Breakup", submitted to The Center for Environmental Resource Management - UTEP, requesting \$5,850 for the period of October 1991 to May 1992.
33. J.A. Lopez, "Nuclear Disassembly", submitted to The University Research Institute -UTEP, requesting \$1,450 for the period of November 1991 to August 1992. Funded for \$1,250.
34. J.A. Lopez, "JPL's Minority Initiative", submitted to The Office of Sponsored Projects - UTEP, requesting \$347 for the period of January 22, 1991 to January 25, 1991.
35. El Paso Physics Link, J.A. Lopez and C.H. Cooper, submitted on March 1993 to UTEP's MRCE, requesting \$10,000 for additional funding for the summer program of the GTE funded project, for the period of June 1, 1993 to June 30, 1993.
36. El Paso Physics Link, \$30,000, submitted to GTE, in collaboration with Clarence Cooper, from 1993 to 1995. To do outreach activities and summer research experiences with high school students and physics teachers.
37. J.A. Lopez, "Disassembly of Nuclear Drops", submitted to The Center for Environmental Resource Management - UTEP, \$9,000 for the period of October 1990 to May 1991.
38. J.A. Lopez, "Transition State Treatment of Nuclear Fragmentation", submitted to The University Research Institute - UTEP, for the period of November 1990 to August 1991. Funded for \$2,600.

PROPOSALS PENDING AND NOT FUNDED

39. Isospin dependence of the nuclear equation of state, PI: J. Lopez, Department of Energy, \$225,188, submitted 9/29/2010, Not funded.
40. Determination of the Equation of State of Asymmetric Nuclear Matter, PI: B. Tsang (Michigan State U), co-PI: S. Yennello (Texas A&M U), J. Lopez, NSF - PIRE, \$766,063, 2/2009.
41. The learning community for modern physics, PI: J.A. Lopez, co-PIs: M. Castro-Colin and B. Flores, NSF - CCLI, \$252,654, 5/21/2009.
42. Trends in Early Science, PI: S. Blake (U of Memphis), Senior Personnel: D. Windsor, D. Franceschetti, S. Taylor, Y. Hsueh, L. Allen, K. Spencer-Cotter, J. Lopez, G. Della Pianna, T. Brady and S. Starks, NSF Solicitation 08-609, Discovery Research K-12, \$1,235,650, 2/2009.
43. ARI-MA: Detection of concealed dilute special nuclear material in simulated cargo containers using a neutron generator, PI: M. Castro, co-PI: J. Lopez, ECCS - NSF/DHS ACADEMIC RES INITIAT, \$766,063, 4/11/2008.
44. Investigation of Naturalistic Quiddity of Inquiry Reasoning in Education (INQUIRE), PI: S. Blake, co-PIs: Donald R Franceschetti, Satomi Taylor, Hsiang-te Kung, J. Lopez, Beverly Cross, and Gabe Della-Piana, NSF-ESI, white paper submitted on 23/Jan./2008. Not invited to apply.
45. Informal Science Education through Interactive Theatrical Plays, PI: J. Ferret, co-PIs: J. Lopez and L.G. Valdez-Sanchez, NSF - DRL - INFORMAL SCIENCE EDUCATION, \$701,229, 9/13/2007.
46. ARI-SA: Fissile material identification threshold via 2.5 MeV neutrons for domestic nuclear detection, PI: M. Castro, co-PI: J. Lopez, NSF - CBET - EXPLOSIVES & RLTD THREATS EXP, \$361,765, 5/2/2007.

47. Identification of hardness enhancement factors of pulsed-laser deposited a-CN and TiN superhard coatings, PI: M. Castro, co-PI: J. Lopez, NSF - CMMI - MATERIALS AND SURFACE ENG, \$230,350, 2/21/2007.
48. Increasing the Retention and Success of STEM Students through the Middle Years, PI: B. Flores, Co-PIs: R. Osegueda, J. A. Lopez, M. Khamsi, J. Becvar, J. Noveron, Nat. Science Foundation Proposal No.0622575, \$1,997,103.00, Feb. 09, 2006.
49. An Integrative Science Success, Teaching and Retention Program for STEM Education, PI: B. Flores, co-PIs: J. Becvar, H. Knaust, J. Lopez and J. Tinajero, NSF-DUE, \$1,964,912, submitted on 26/Sep./2006.
50. PhysTec: Physics Teacher Education Coalition, letter of interest submitted on 1/Nov./2006, J. Lopez, E. Hagedorn, and M. Suskavcevic, American Physical Society, \$300,000, not invited to apply.
51. Increasing the retention and success of STEM students through the middle years, PI: B. Flores, co-PIs: J. Becvar, M. Khamsi, J. Lopez and J. Noveron, NSF-DUE, \$1,997,103, 9/Feb./2006.
52. Isoscaling: a proposal to APS Travel Grant Award Program, PI: J. A. Lopez, Co-PI: C. O. Dorso, American Physical Society - Forum of International Physics, \$2,000, May, 2006.
53. Minorities in Radiation Oncology Physics, PIs: J. Lopez and R. Waggener (UTHSCSA), co-PIs: M. Manciu and Carlos Esquivel (UTHSCSA), NIH-RFA-CA05-020, \$510,245, submitted on 2/21/2005.
54. High-Resolution Scanning Probe Microscopy: Enhancing the Interdisciplinary Collaborations at UTEP, PIs: Marian Manciu, Co-PIs: S. Das, R. Chianelli, J. Gardea-Torresday, J. Lopez, R. Wicker, W. Durrer, F. Manciu, T. Primm, C. Botez, M. Castro-Colin, J. Noveron and E. Hagedorn, for DoD's Instrumentation and Research Support for Hispanic-Serving Institutions, program W911NF-05-R-0005, for a total request of \$193,700.
55. Alliance of early education in physical science, PI: S. Blake, co-PI: J. Lopez, NSF-ESI No. 0607120, \$1,349,542, submitted on 14/Nov./2005. This was a research and education proposal.
56. Increasing Hispanic participation in medical physics, PI: R. Waggener (UT Health Sciences Center at San Antonio, co-PIs: J. Lopez and M. Manciu, Texas Higher Education Board, \$149,300, Sep./2005.
57. CREST: Center for Computational Science and Engineering, PI: J. Lopez, co-PIs: D. Doser, R. Ravelo, B. Usevitch, and D. Williams, NSF-CREST program, \$4,948,000, submitted on 1/21/2004.
58. The Texas EXTensive Air-shower-array Network (TEXAN), Pre-Proposal 010366-0199-2003 submitted by R. Webb, A. White, D. Judd, K. Lang, J. Lopez, N. Akchurin, D. Suson, W. Leeson, and F. Olness' to ATP program on 8/2003.
59. Proposal to UTTeleCampus for Physics MS Core Courses, PI: J. Lopez, UT TeleCampus Program, requesting \$64,980 from agency for a project total of \$115,254, submitted on 3/14/2003.
60. Proposal for a Joint Program on Physics Instrumentation, PI: G. Sewell, co-PIs: M. Mechetti (Univ. de Tucuman, Argentina) and J. Lopez, Fulbright Alumni Initiative Awards Program, \$24,592, submitted on 2/12/2003.
61. CREST: Center for Computational Science and Engineering, PI: J. Lopez, co-PIs: C. Chiu, D. Doser, H. Nazeran, R. Ravelo, and B. Usevitch, NSF-CREST program, \$4,918,105, submitted on 14/1/03.
62. The Texas EXTensive Air-shower-array Network (TEXAN), Pre-Proposal 010366-0199-2003, R. Webb, A. White, D. Judd, K. Lang, J. Lopez, N. Akchurin, D. Suson, W. Leeson, and F. Olness' to ATP program on 8/2003. Not invited to apply.
63. CREST: Center for Computational Science and Engineering, PI: J. Lopez, co-PIs: C. Chiu, D. Doser, H. Nazeran, R. Ravelo, and B. Usevitch, NSF-CREST program, \$4,918,105, 14/1/03.
64. Development of a Laboratory for Research and Graduate and Undergraduate Education in Surface Studies, PIs: J. Lopez and W. Durrer, NSF-DMR-IMR, \$70,000, submitted on January 25, 2002.
65. Laboratory for Undergraduate Education in Surface Studies, PIs: J. Lopez and W. Durrer, NSF-CCLI-DUE, \$199,984, submitted on December 4, 2002.
66. Development of a Laboratory for Research and Graduate and Undergraduate Education in Surface Studies, PIs: J. Lopez and W. Durrer, NSF-DMR-IMR, \$70,000, submitted on January 25, 2002.
67. Middle School Victory Project (Visual Calculus: Teaching of Rigorous Youngsters), with Sally Blake, submitted to NSF's REC-Educational Research Initiative program, \$4,687,022, 2/2/2001.
68. Search of Gravitational Radiation, submitted to NASA OSS/DEOP MUERPIS program, \$500,000, 9/5/2000.
69. Search for Evidence of Low-Frequency Gravitational Radiation in Archived Radio Doppler Data from Pioneer 10, with John Anderson, Jet Propulsion Lab., for \$30,560, submitted to NASA'S OSS program "Education and Research Partnership Initiative in Space Science - 2000", May 2000.
70. J. A. Lopez, "The JPL Gravity Centers", submitted in 1/21/97 in collaboration with UT Brownsville and the Jet Propulsion Laboratory to NASA's MUREP program, requesting \$516,736.
71. R. Ravelo, J.A. Lopez, William Herndon, Jeff Drucker, James Salvador, and Rosa Fitzgerald, "Acquisition of Parallel Computer For Large Scale Numerical Simulations in Physics and Chemistry", for \$113,596 submitted in 2/97 to the ARI Instrumentation Program/OSTI of the National Science Foundation.
72. Reforma a la Educacion de la Ciencia: El Constructivismo en la Ensenanza de la Fisica, for \$12,000, submitted to University Autonoma of Chihuahua - Campus Juarez on 10/97.

73. Physics Projects for Upper-Level Math Courses, for approximately \$15,000, submitted to UTEP's Model Institution of Excellence on 10/1997 in collaboration with Luis Valdez Sanchez.
74. Demonstration and Manipulative Equipment for the Upper-Level Physics and Chemistry Courses, \$30,749 submitted to UTEP's Model Institution of Excellence in collaboration with Jorge Gardea Torresdey, 11/1997
75. Proposal to Improve the Upper-Level Physics Courses, \$4,500, UTEP's Model Institution of Excellence on 12/1997.
76. Computational Physics, \$7,000, submitted to the Teaching Effectiveness Committee, in collaboration with R. Ravelo, 1996.
77. Computational Physics Course with R. Ravelo, \$12,000, submitted to Texas Instruments in December 1996.
78. Hands-on Physics Activities for K-6th Grade Dual Language Classes, \$35,617, Eisenhower Program, Texas Higher Educ. Coord. Board, Mar. 1996.
79. Calculator Based Physics Courses with L. G. Valdez, \$25,000, submitted to Texas Instruments in October 1996.
80. J.A. Lopez, "A Study of Heavy Ions", submitted to The Department of Energy, \$161,002 for a total project cost of \$182,702.
81. R. Ravelo, J.A. Lopez, William Herndon, Jeff Drucker, and James Salvador, "Acquisition of Parallel Computer For Large Scale Numerical Simulations in Physics and Chemistry", submitted in 2/96 to the ARI Instrumentation Program/OSTI of the National Science Foundation for the amount of \$76,225 for a total project cost of \$112,734.
82. J.A. Lopez, "Atomic Nuclei Under Extreme Conditions of Temperature Density and Angular Momentum", The Advanced Research Program, in collaboration with Texas A&M University, \$138,977 for a total project cost of \$223,977.
83. Hands-on Physics Activities for K-6th Grade Dual Language Classes, \$35,617, Texas Higher Educ. Coord. Board, 3/1996.
84. Calculator Based Physics Courses with L. G. Valdez, \$25,000, submitted to Texas Instruments in October 1996.
85. Computational Physics Course with R. Ravelo, \$12,000, submitted to Texas Instruments in December 1996.
86. J.A. Lopez, "Energy, Mass and Momentum Flow in Heavy Ion Reactions", submitted to the Welch Foundation, requesting \$72,146 for the period of June 1994 to May 1996.
87. J.H. Pierluissi, R.A. Osegueda, and J.A. Lopez, "Frequencies and Modes in Dielectric Resonators at Millimeter Waves", submitted to the NASA's Jet Propulsion Laboratory, \$369,061 for the period of September 1, 1993 to August 31, 1996.
88. In-Service Workshops in Chemistry & Physics for grades K-8 \$77,133, Eisenhower Program, Texas Coordinating Board, submitted in March 1995 in collaboration of Dr. J. Becvar.
89. Research Career for Minority Scholars, National Science Foundation with Dr. Arturo Bronson, for \$1,389,301, 2/1995.
90. J.A. Lopez and S. Shlomo, "Energy, Matter, and Momentum Flow and Fragmentation in Heavy-Ion Collisions", submitted on July 14, 1993 to the Texas Higher Education Coordinating Board - Advanced Research Program, requesting \$117,954 for a total project cost of \$188,399 for the period of November 1993 to October 1995.
91. J.A. Lopez, "Detection of Gravity Waves by Autocorrelation Techniques", submitted on July 14, 1993 to the Texas Higher Education Coordinating Board - Advanced Research Program, requesting \$49,272.
92. J.A. Lopez, "A Molecular Dynamics Study of Nuclear Projectile Breakup", submitted on May 10, 1993 to Research Corporation, requesting \$23,099 for a total project cost of \$30,828 for the period of January 1994 to December 1995.
93. J.A. Lopez, "Transition State Treatment of Nuclear Fragmentation", submitted on December 2, 1992 to The Department of Energy, requesting \$77,394 for a total project cost of \$89,394, for the period of June 1, 1993 to May 31, 1995.
94. J.A. Lopez, "Detection of Gravity Waves by Autocorrelation Techniques", June, 1992 to the Minority Initiative Program of the Jet Propulsion Laboratory, requesting \$52,439 for a total project cost of \$66,439.
95. J.A. Lopez, "Transition State Treatment of Nuclear Fragmentation", submitted on October 29, 1992 to the 1993 University Research and Development Grant Program of Cray Research, Inc, requesting \$40,000 for a total project cost of \$58,800, for the period of January 1, 1993 to December 31, 1993.
96. Binational Review of Siting Studies for the Low-Level Radiation Sierra Blanca Facilities, application sent on 5/92, in collaboration with C. Ferragut (Civil Eng.), to The Texas Low-Level Radiation Waste Disposal Authority for \$120,500.
97. C.A. Ordonez and J.A. Lopez, "Investigation of Nuclear Reactions During Ion Implantation", submitted on January 31, 1991 to The National Science Foundation, requesting \$11,729 for a total project cost of \$13,549.
98. J.A. Lopez, "The Mass-to-Light Ratio in the Core of Galaxy Clusters", submitted on July 10, 1991 to the Texas Higher Education Coordinating Board - Advanced Research Program, \$46,906.
99. J.A. Lopez, "The Mass-to-Light Ratio in the Core of Galaxy Clusters", submitted on June, 1991 to the Minority Initiative Program of the Jet Propulsion Laboratory, requesting \$47,847 for the period of January 1, 1992 to December 31, 1993.
100. "The Annie Casey Foundation Physics Centers", J.A. Lopez and C.H. Cooper, proposal submitted on July 1, 1993 to The Annie Casey Foundation, proposal for \$50,000 for a two year period submitted in November, 1993.
101. "Research on the Teaching of Computational Physics", J.A. Lopez, submitted on June 14, 1993 to The University Research Institute - UTEP, requesting \$2,800 for the period of November 1993 to August 1994.

102. "The America West Airlines Physics Center", J.A. Lopez and C.H. Cooper, July 1, 1993 to America West Airlines Foundation, requesting \$5,000 for a total project cost of \$9,829, for the period of November 1, 1993 to October 31, 1994.
103. "Microcomputers in Education - Software for Teaching Mathematics to Bilingual College Students", M. Calderon, J.A. Lopez, G. Shaw, and H. Herrera, submitted on April 1992 to The Teaching Effectiveness Committee - UTEP, requesting \$7,500 for the period of September 1992 to August 1993.
104. J.A. Lopez, "Faculty Development Award", submitted on November 29, 1990 to The General Electric Foundation, requesting \$12,500 for the period of January 1, 1991 to December 31, 1991.
105. J.A. Lopez, "Transition State Treatment of Nuclear Fragmentation", submitted on August 21, 1990 to The National Science Foundation, requesting \$71,221 for a total project cost of \$83,221, for the period of January 1, 1991 to December 31, 1992.

AWARDS AND HONORS

Dr. Lopez has been recognized by The American Physical Society, Society of Mexican American Engineers and Scientists, University of Texas at El Paso, Texas A&M University, Universidad Nacional Autónoma de México, Juárez Municipal Government and other institutions; he is also proud of the recognitions received by his students while under his supervision.

RESEARCH AWARDS

- Elected as Corresponding Member of the Mexican Academy of Sciences, 4/12/2012.
- 2009 Hyer Award, for research with undergraduate student Jorge Muñoz (now at CalTech), Texas Section of American Physical Society, 10/2009, www.aps.org/units/tsaps/awards/hyer/recipients-09.cfm.
- Fellow, elected by the American Physical Society, Nov. 2007, co-nominated by Div. Nuclear Physics and Forum of International Physics. Research Citation: "For contributions to nuclear physics, in particular for the understanding of the liquid-gas nuclear phase transition", www.aps.org/programs/honors/fellowships/archive-all.cfm?initial=L&year=2007&nom_unit=&institution=University+of+Texas
- Cátedra Ángel Dacal Alonso, awarded by the Instituto de Física, Universidad Nacional Autónoma de México, to visit IF-UNAM from 6/15 to 7/14, 2002, MX\$20,000.
- CUESTA Faculty Fellowship, UTEP-NASA (Jet propulsion Lab), 1996.
- Graduate Student Award, given by the Association of Former Students of Texas A&M University for the Best Doctoral dissertation in the 85-86 academic year.

EDUCATIONAL AWARDS

- 2011 Educator of the year, for academic achievements, Society of Hispanic Professional Engineers, Oct. 26, 2011, <http://conference.shpe.org/shpe2011/awards-show-graduate>.
- 2010 Outstanding MAESTro Award, for academic achievements, Society of Mexican American Engineers and Scientists, Oct. 1, 2010, <http://www.maes-natl.org/docs/pressreleases/2010-12A.pdf>.
- Rho-Sigma-Tau Schumaker Professor, UTEP, since 2001 to date.
- Meritorious Performance and Professional Promise Award, California Polytechnic State Univ., 1990.
- Affirmative Action Faculty Development Program Award, given by The Graduate Studies, Research and Faculty Development Office of California Polytechnic State University, February 1990.

OTHER AWARDS

- Reconocimiento, awarded by the H. Ayuntamiento de Juárez, 12/2003, Cd. Juárez, Chihuahua, México.
- APS Centennial Speaker, named by the American Physical Society, to deliver talks at three Universities. 1998-1999. Talks given at Texas Tech University in Lubbock, Texas, Dec. 1998, Southern Illinois University in Carbondale, Illinois, Oct. 99, and St. Edwards University, Austin, TX.
- Reconocimiento, awarded by the H. Ayuntamiento de Juárez, 12/99, Cd. Juárez, Chihuahua, México.
- 1997 Parental Involvement in Science, awarded by Eastwood Heights Elementary School, El Paso, Texas.

- 1996 Parental Involvement in Science, awarded by Eastwood Heights Elementary School, El Paso, Texas.
- 1995 Parental Involvement in Science, awarded by Eastwood Heights Elementary School, El Paso, Texas.

AWARDS OF STUDENTS

- Commencement Presentation, BS student Juan Garcia, May, 2010.
- Commencement Presentation, BS student Jorge Muñoz, May, 2009.
- 2008 UTEP's Science & Engineering Award for Outstanding Graduate Thesis, MS student Christian Escudero.
- Banner Bearer, Commencement, BS student Alan Davila, May, 2008.
- NSF GRF Recognition, BS student Mario Borunda, 1998.
- Best Undergraduate Presentation, Texas Section of Am. Physical Society, BS student Jorge Muñoz, 2006.
- UTEP nominee for 2005 USA Today's US Academic Team, my BS student Alan Davila, December, 2005.
- 2004 UTEP's Science & Engineering Award for Outstanding Graduate Thesis, MS student Jesus Escamilla Roa.
- Best Undergraduate Presentation, Texas Section of Am. Physical Society, BS student Martha Navarro, 1999.
- NSF Graduate Research Fellowship, BS student Jaime Morales, 1998.
- Best Undergraduate Presentation, Texas Section of Am. Physical Society, BS student Alfredo Aranda, 1996.
- NSF Graduate Research Fellowship, BS student Richard Coronado, 1996.
- Best Undergraduate Presentation, Texas Section of Am. Physical Society, BS student Richard Coronado, 1996.
- Best Undergraduate Presentation, Texas Section of Am. Physical Society, BS student Alfredo Aranda, 1994.

References

ABOUT ACADEMIC SERVICE

- Dr. Diana Natalicio, President, University of Texas at El Paso, dnatalicio@utep.edu, tel. 915-747-5555, <http://www.utep.edu/aboututep/presidentstaff.aspx>. Dr. Natalicio has been acquainted with Dr. Lopez throughout his career and has been very supportive of many of Dr. Lopez's initiatives.
- Dr. Thomas Brady, Dean, College of Life Sciences and Agriculture, University of New Hampshire, tom.brady@unh.edu, tel. 603-862-1453, <http://www.colsa.unh.edu/deans-office>. Dr. Brady was the Dean of the College of Science while Dr. Lopez was Assistant Dean and during his first two years as Chair of the Physics Department; he can provide information about his performance as administrator.
- Dr. Benjamin Flores, Acting Dean, Graduate School, University of Texas at El Paso, bflores@utep.edu, tel. 915-747-5961, <http://ee.utep.edu/facultyflores.htm>. Dr. Flores has played a central role in the development of recruitment and retention programs for STEM students at UTEP, and has been aware of Dr. Lopez efforts in this area.
- Dr. Jorge Gardea, Chair, Chemistry Department, University of Texas at El Paso, jgardea@utep.edu, tel. 915-747-5359, <http://gardea.nfshost.com/gardea/Home.htm>. Dr. Gardea was Chair while Dr. Lopez was Assistant Dean and Chair, and can provide valuable information about his performance from the perspective of a fellow Chair.

ABOUT PROFESSIONAL SERVICE AND OUTREACH

- Dr. David Ernst, Professor, Physics Department, Vanderbilt University, david.j.ernst@vanderbilt.edu, tel. 615-343-0483, <http://sitemason.vanderbilt.edu/ernstdj>. Dr. Ernst was a professor of Dr. Lopez and was the leader in the creation of the National Society of Hispanic Physicists. He can provide information about the roles Dr. Lopez has had at various professional societies and outreach at a national and international level.
- Dr. Mario Diaz, Director, Center for Gravitational Wave Astronomy, University of Texas at Brownsville, mario@phys.utb.edu, tel. 956-882-6690, <http://www.phys.utb.edu/people/diaz.shtml>. Dr. Diaz has known Dr. Lopez for over 15 years, and knows of his efforts in establishing educational opportunities for minority students.

ABOUT RESEARCH

- Dr. Claudio Dorso, Professor, Universidad de Buenos Aires, codorso@df.uba.ar; claudio_dorso@hotmail.com, tel. 011-54-4576-3390 (Ext. 826), http://www.df.uba.ar/profesores_lista/user.php?username=codorso. Dr. Dorso is a lifelong collaborator of Dr. Lopez in the area of nuclear physics, and can provide information about his research career.
- Dr. Samuel Schmidt, Vice President for Academic Affairs, Universidad de Guadalajara Foundation – Los Angeles, shmil50@hotmail.com, tel. 213-471-3061. Dr. Schmidt is a political scientist collaborator and co-author of Dr. Lopez in the area of scientific studies of electoral data, and can provide information about the value of his research in this area.