

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. Hispanic Physics Radio Education Project, PI: J.A. Lopez, co-PI: Arturo Vazquez (Ixtilan Communications), American Physical Society, \$10,000, Feb. 2011.
2. Materials Characterization, PI: J.A. Lopez, UTEP's URI program, \$5,000, Sep. 2010.
3. 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.
4. Minorities in Radiation Oncology Physics, PIs: M. Manciu and R. Waggener (UTHSCSA), co-PIs: J. Lopez, NIH-RFA-CA05-020, \$535,000.
5. Student Sponsorship at the Fifth Latin American Symposium on Nuclear Physics, PIs: P. Cole and J. Lopez, , NSF-International Programs, \$18,000, submitted on 16/12/2003.
6. Modern Physics Simulations, utep MIE's Undergraduate Research Stipends Program, \$12,000 for the period of 1/1/02 to 12/31/03.
7. Nuclear fragmentation, utep MIE's Undergraduate Research Stipends Program, \$6,000 for the period of 1/1/02 to 12/31/03.
8. 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.
9. Assessing Virtual Experiments in High School and Preparatoria Students, \$1,705.60, UTEP CIABS, from 9/2000 to 8/2001.
10. Computer Simulations, submitted to UTEP CETAL for \$6,500, 4/2001 to 5/2002.
11. J.A. Lopez, "Physics 2000", UTEP Center for Border Studies, for \$1,750, 1/00 to 6/00.
12. 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.
13. Hands-on Physics Activities for K-6th Grade Dual Language Classes, \$12,000, Ysleta School District, Sept.. 1999.
14. 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.
15. 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.
16. 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.
17. 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.
18. Computer-Based Laboratory for Modern Physics \$88,574, The National Science Foundation DUE-ILI-LLD Program, funded in 9/1996.
19. 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.
20. 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.
21. Computer-Based Modern Physics Laboratory \$9,868, UTEP's Model Institution of Excellence, funded in 6/96.
22. 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.
23. "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.

24. 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.
25. 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.
26. 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.
27. 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.
28. Computational Physics, \$6,800, submitted to the College of Science, funded in 9/94.
29. 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.
30. 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.
31. 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.
32. 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.
33. 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.
34. 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.
35. 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.
36. 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.
37. 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

38. Isospin dependence of the nuclear equation of state, PI: J. Lopez, Department of Energy, \$225,188, submitted 9/29/2010, Pending.
39. Isospin dependence of the nuclear equation of state, PI: J. Lopez, National Science Foundation, \$225,188, submitted 9/17/2010, Pending.
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-Colín 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.