Curriculum Vitae

Jorge A. López Physics Department University of Texas at El Paso 500 W. University Ave., El Paso, TX 79968

GRAND SUMMARY

• TEACHING

- o Courses
 - Has taught fifteen different physics courses at all levels.
- Student supervision
 - Has directed thesis work of one Ph.D. student
 - 19 MS students,
 - one BS student.
 - Additionally has supervised 28 students in research projects.
 - Has been a member in 25 MS thesis committees and four Ph.D. dissertation committees.
- o Design
 - Has designed improvements to the curricula of 15 courses.
 - Has produced 19 items of teaching material
- Education proposals
 - Has been a PI or co-PI in 45 grant proposals and contracts related to education, out of which 17 were funded for a total of over \$600,000.
- **RESEARCH**
 - PUBLICATIONS
 - Has written one book, one chapter in a book, edited two books, and written two articles included in books.
 - Has 63 articles published in 48 journal publications and in 15 conference proceedings, as well as 10 web and unpublished articles, and 83 abstracts.
 - o Presentations:
 - 40 national and international meetings
 - I1 Regional Meetings
 - 46 Seminars
 - o Meetings
 - Has organized 7 national, regional and local conferences.
 - Has chaired 15 sessions in national, regional and local conferences.
 - Has been in 15 international advisory boards of conferences
 - o Reviewer
 - Has been a reviewer for The Physical Review, The Physical Review Letters, Brazilian Physics Journal, and Revista Mexicana de Fisica
 - Has been a reviewer for NSF (GFP, RIMI, DUE-ILI), ACS-PRF and Pacific Norwest Lab.
 - Proposals
 - Has submitted 43 research proposals out of which 19 have been funded for a total of over \$300,000
 - Recognition
 - Has been recognized with the Rho-Sigma-Tau Shumaker Professor bu UTEP
 - Was named APS Centennieal Speaker by the American Physical Society
 - has been nominated for two service awards at UTEP

- Received the Graduate Student Award from the Association of Former Students of Texas A&M University for the Best Doctoral dissertation.
- SERVICE
 - Has served as the chair of the Physics Department from 6/2001 to date. Was assistant dean of the College of Science from 1999 to 2001. Has been in 32 service committees and in 13 other official duties
 - Has 50 publications and radio and TV interviews related to service activity.
 - Has been a consulter (panelist, reviewer, editor, etc.) 16 times
 - Has participated and organized 73 outreach activities.
 - Has been the chair of the Texas Section of the American Physical Society, president of the National Society of Hispanic Physicists. And has been in 32 professional committees.
 - His service activities have been recognized by the Juarez Municipality, Universidad Nacional Autonoma de Mexico, and UTEP, and Eastwood Heights Elementary School, among others.
 - Has brought 27 research guests to UTEP, and has made 41 trips to other institutions, and has attended 10 schools and conferences

BACKGROUND

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, from 10/19985 to 9/1987.
- Lawrence Berkeley National Laboratory, Nuclear Science Division, Berkeley, California. USA, 10/1987 to 8/1989.

ACADEMIC APPOINTMENTS

- Niels Bohr Institute, Copenhagen Denmark, Physics, Postdoctoral Researcher, advisor: Dr. Jakob Bondorf, 9/1985-8/1987
- Lawrence Berkeley Lab., Berkeley, California, Postdoctoral Researcher, advisor: Dr. Jørgen Randrup, 9/1987-8/1989
- California Polytechnic State University, San Luis Obispo, CA, Assistant Professor, 9/89 to 8/90.
- 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.
- Assistant Dean, College of Science, Univ. of Texas at El Paso, 9/1999-7/2001.
- Shumaker Professor, Physics Department, Univ. of Texas at El Paso, 2/2001-present.
- Chair, Physics Department, Univ. of Texas at El Paso, 7/2001-present.

TEACHING

1. COURSES TAUGHT

<u>SEMESTER</u>		COURSE	NO. OF STUDENTS
FALL 2006	15992	PHYS 5195 Graduate Seminar	11
FALL 2005	15995	PHYS 5365 Advanced Statistical Physics	5
FALL 2006	18962	PHYS 5393 Sp. Topics. (Luis Pinales)	1
FALL 2006	18792	PHYS 4377 Sp. Topics. (Carlos Hernandez, Jorge Muí	ňoz) 2
FALL 2006	18971	PHYS 5396 Grad. Res. (Rodrigo Gamboa Goñi)	1
FALL 2006	18972	PHYS 5398 Thesis (R. Gamboa Goñi)	1
FALL 2006	19128	PHYS 5399 Thesis (C. Escudero, R. Gamboa Goñi)	2
SPRING 2006	25461	PHYS 5195 Graduate Seminar	5
SPRING 2006	21446	PHYS 5341 Electrodynamics	10
SPRING 2006	21858	PHYS 5396 Grad. Res. (Rodrigo Gamboa Goñi)	1
SPRING 2006	21850		1
SPRING 2006	28761	PHYS 5399 Thesis (Karen Castrejon, Jesus Saenz)	2
FALL 2005	16177		4
FALL 2005	18342	PHYS 5365 Advanced Statistical Physics	12
FALL 2005	11786		
FALL 2005		PHYS 5398 Thesis (Jesus Saenz)	1
FALL 2005	19385	PHYS 5399 Thesis (Carlos Martinez)	1
SUMMER 2005	34301	PHYS 5391 Research Problems in Physics (Luis Sando	
SUMMER 2005		PHYS 5391 Research Problems in Physics (Luis Pinale	
SUMMER 2005	33087	PHYS 5393 Research Problems in Physics (Andrade, H	Pinales) 2
SUMMER 2005	33675	PHYS 5393 Special Topics in Physics (Luis Basurto)	1
SUMMER 2005	34274	PHYS 5398 Thesis (Carlos Martinez)	1
SUMMER 2005	34157	PHYS 5399 Thesis (Jose Valadez)	1
SPRING 2005	28767	PHYS 4357 Relativity Nuclear and Particles	1
		as an overload to allow student Luis Pinales to graduate	e)
SPRING 2005	22775		1
SPRING 2005	26890	PHYS 5195 Graduate Seminar	10
SPRING 2005	22188	PHYS 5341 Electrodynamics	5
SPRING 2005	28514	PHYS 5393 Special Topics in Physics (Luis Pinales)	1
SPRING 2005	22764	PHYS 5396 Grad. Res. (Jose Valadez, Gilberto Palafor	x) 2
SPRING 2005	22753	PHYS 5398 Thesis (Jose Valadez, John Hernandez)	2
FALL 2004		PHYS 4355 Intro to Quantum Mechanics	3
		(Taught as an overload to allow students Luis Pinales,	
		Adrian Flores and Adrian Flores to graduate)	
FALL 2004		PHYS 3325 Survey of Modern Physics	27
FALL 2004		PHYS 5195 Graduate Seminar	16
FALL 2004		PHYS 5196 Graduate Research in Physics (Hoffmaster	
FALL 2004		PHYS 5393 Special Topics in Physics (Standard Mode	
FALL 2004		PHYS 5396 Graduate Research in Physics (Valadez)	1
FALL 2004		PHYS 5399 Thesis (Luis Basurto)	1
SUMMER 2004		PHYS 5393 Special topics in Physics (Standard model) 6
SUMMER 2004		PHYS 5398 Thesis (Luis Basurto)	1
SUMMER 2004		PHYS 5399 Thesis (Federico Lopez and Sergio Rodrig	guez) 2
SPRING 2004		PHYS 5195 Graduate Seminar	5
SPRING 2004		PHYS 5365 Advanced Statistical Physics	8

SPRING 2004 SPRING 2004	PHYS 5396 Grad. Res. (Basurto, DelaO, Ramos, Rodriguez) PHYS 5398 Thesis (Federico Lopez and Sergio Rodriguez)	4 2
SFRING 2004	FRITS 5598 Thesis (Federico Lopez and Sergio Rodriguez)	2
FALL 2003	PHYS 3325 Survey of Modern Physics	41
FALL 2003	PHYS 4177 UGrad. Res. Prob. (Escudero, Ramos)	2
FALL 2003	PHYS 4341 Electromagnetics I	1
	(Taught as an overload to allow geology student Alejandro de la Peña	to graduate)
FALL 2003	PHYS 4356 Atoms, Molecules and Solids	1
	(Taught as an overload to allow student Manuel Ramos to graduate)	
FALL 2003	PHYS 5195 Graduate Seminar	9
FALL 2003	PHYS 5396 Grad. Res. (DelaO, Rodriguez, Sandoval)	3
FALL 2003	PHYS 5398 Thesis (Federico Lopez and Sergio Rodriguez)	2
FALL 2003	PHYS 5399 Thesis (Luis Sandoval)	1
SUMMER 2003	PHYS 5399 Thesis (Escamilla)	1
SPRING 2003	PHYS 5365 Advanced Statistical Physics (new course)	13
SPRING 2003	PHYS 5195 Graduate Seminar	9
SPRING 2003	PHYS 5398 Thesis (Escamilla, Lopez, Rodriguez)	3
FALL 2002	PHYS 3325 (reformed)	38
FALL 2002	PHYS 5195	9
SPRING 2002	PSCI 2303, PHYSICAL SCIENCE II	28
SPRING 2002	PHYS 5393	3
SPRING 2002	PHYS 5195	12
SPRING 2002	PHYS 4177	3
FALL 2001	PSCI 2303, PHYSICAL SCIENCE II	28
FALL 2001	PSCI 2303, PHYSICAL SCIENCE II (new course)	29
FALL 2000	PSCI 3304, PHYSICAL SCIENCE II (UTEP)	80
FALL 2000	PSCI 3304, PHYSICAL SCIENCE II (Marion Manor)	28
SPRING 2000	PSCI 3304, PHYSICAL SCIENCE II	90
FALL 99	PHYS 3525, MATH PHYSICS	11
SPRING 99	PSCI 3304, PHYSICAL SCIENCE II	24
FALL 98	PHYS 3525, MATH PHYSICS	2
FALL 98 FALL 98	PSCI 3304, PHYSICAL SCIENCE II	12
SPRING 98	PSCI 3304, PHYS SCIENCE II (new course)	16
SPRING 98	PSCI 3304, PHYS SCIENCE II	12
FALL 97	PHYS 3325, MOD PHYSICS	40
FALL 97	PHYS 3525, MATH PHYSICS	6
SPRING 97	PHYS. 4211, FIELD AND WAVES	46
FALL 96	PHYS 3525, MATH PHYSICS	6
SPRING 96	PHYS 3325, MOD PHYSICS	20
SPRING 96	PHYS 4211, FIELDS & WAVES	35
FALL 95	PHYS 3525, MATH PHYSICS	4
FALL 95	PHYS 4211, FIELDS & WAVES	23
SPRING 95	PHYS 4211, FIELDS & WAVES	33
SPRING 95	PHYS 3457, NUC. PART. & REL. (new course)	5
		-
	PHYS 3525, MATH PHYSICS	9
FALL 94 FALL 94	PHYS 2477, INTRO TO PHYSICS (new course, overload)	9

FALL 94 SPRING 94 SPRING 94	PHYS 4211, FIELD AND WAVES PHYS 3325, MOD PHYSICS (new course) PHYS 4211, E&M	46 20 35
FALL 93	PHYS 3525, MATH PHYSICS	6
FALL 93	PHYS 4211, FIELDS & WAVES	42
SPRING 93	PHYS 4104 LABS (6 Sections)	113
SPRING 93	PHYS 4211, FIELDS & WAVES	47
FALL 92	PHYS 3525, MATH PHYSICS	6
FALL 92	PHYS 4103, LAB (5 SECTIONS)	130
SPRING 92	PHYS 4104, LAB (5 SECTIONS)	100
SPRING 92	PHYS 3521, MECHANICS	5
FALL 91	PHYS 4103 LAB (5 SECTIONS)	100
FALL 91	PHYS 4211, FIELDS & WAVES	60
SPRING 91	PHYS 4104, LAB (5 SECTIONS)	120
SPRING 91	PHYS 3541, ELECTRODYNAMICS I	5
FALL 90	PHYS 4103 LAB (5 SECTIONS)	110
FALL 90	PHYS 4210, MECHANICS AND THERMAL PHYSICS	76

2. EVALUATION OF TEACHING EFFECTIVENESS

<u>SEMESTER</u>	<u>COURSE</u>	EVALUATION
SPRING 2005	22188 PHYS 5341	Rates for B4-B11: 4.4/4.6/4.6/5.0/4.6/4.0/3.6/4.6
		Rates for C12-C16: NA/NA/4.4/4.4/4.8
SPRING 2004	22188 PHYS 5341	Rates for B4-B11: 4.4/4.6/4.6/5.0/4.6/4.0/3.6/4.6
EALT 2004	16571 DING 2225	Rates for C12-C16: NA/NA/4.4/4.4/4.8
FALL 2004	16571 PHYS 3325	Rates for B4-B11: 4.3/4.6/4.3/4.3/4.4/4.4/4.6/4.3 Rates for C12-C16: NA/NA/4.0/4.4/4.2
SPRING 2004	PHYS 5365	Rates for B4-B11: $4.5/4.5/4.5/4.6/4.6/4.6/4.6/4.7$
51 KING 2004	11115 5505	Rates for C12-C16: NA/NA/4.6/4.5/4.5
FALL 2003	PHYS 3325 (using powerpoint)	Rates for B4-B11: $4.4/4.5/4.4/4.5/4.5/4.3/4.3/4.3/4.5$
111111 2000		Rates for C12-C16: NA/NA/4.0/4.4/4.2
SPRING 2003	PHYS 5365 (new course) Rates for	or B4-B11: 4.5/4.5/4.5/4.6/4.5/4.6/4.6/4.7
	× / /	Rates for C12-C16: NA/NA/4.6/4.5/4.5
FALL 2002	PHYS 3325 (reformed)	4.3/4.1/4.2/4.2/4.2/4.2/4.2/4.4
FALL 2002	PHYS 3325 (reformed)	4.3/4.1/4.2/4.2/4.2/4.2/4.2/4.4
SPRING 00	PSCI 3304, PHYSICAL SCIENC	E II See separate evaluation from PETE office
	(at Marion Manor Elementary)	
SPRING 00	PSCI 3304, PHYSICAL SCIENC	E II See separate evaluation from PETE office
	(at UTEP)	
FALL 99	PHYS. 3525, MATH PHYSICS	not available
SPRING 99	PSCI 3304, PHYSICAL SCIENCE	
FALL 98	PSCI 3304, PHYSICAL SCIENCE	
FALL 98	PHYS. 3525, MATH PHYSICS	100/100/100/100/100/100/100/100
SPRING 98 FALL 97	PSCI 3304, PHYSICAL SCIENCE	E II 85/90/67/75/89/79/81/77 1.63
FALL 97 FALL 97	PHYS. 3525, MATH PHYSICS PHYS. 3325, MOD PHYSICS	2.45
SPRING 97	PHYS. 4211, FIELDS & WAVES	
FALL 95	PHYS. 3525, MATH PHYSICS	1.34
FALL 95	PHYS 4211, FIELDS & WAVES	2.14
SPRING 95	PHYS. 4211, FIELDS & WAVES	
SPRING 95	PHYS. 3457, NUC. PART. & REL	
	w ite , i i e e i i i i i i e u i i i i	

SPRING 94	PHYS. 4211, FIELDS & WAVES	2.24
FALL 94	PHYS 4211, FIELDS & WAVES	1.75

3. DIRECTION OF GRADUATE AND UNDERGRADUATE THESES Ph.D. Students

 Mario Borunda, Ph.D. at Mexico's Instituto Politecnico Nacional, defended on Nov. 26, 1997. One publication: M. Borunda and J.A. Lopez, "<u>On the Formation of Hollow Configurations in Heavy-Ion</u> <u>Collisions</u>", Il Nuovo Cimento 107A, 2773, 1994.

M.S. Students

- 1. Rodrigo Gamboa Goñi, "The nuclear symmetry term", August. 2007.
- 2. Christian Escudero, "Nuclear Isoscaling", two publications, May 2007. Best Thesis Award..
- 3. Carlos Martínez, Dec. 2006, co-supervised by Dr. W. Durrer.
- 4. Karen Castrejón, May 2006, Report: "Distribution of Charges in a Wire".
- 5. Jesus Saenz, May 2006, "The Fermi Integral".
- 6. Armando Barrañon, graduated with M.S. degree in physics from Instituto Politecnico Nacional de Mexico, in May 2005, co-supervised with IPN's Dr. Fray de Landa.
- 7. Luis Martin Sandoval, Aug. 2005, "The Linear Delta Expansion", now in Physics Ph.D. studies at New Mexico State U.
- 8. Jose Filadelfo Aguilar Andrade, Aug. 2005, now in Geology Ph.D. studies at UTEP.
- 9. <u>Olienka de la O Fernández</u>, 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 since Fall 2005.
- Sergio Yanuén Rodríguez, graduated in August 2004, in co-supervision with W. Durrer. One poster presented at TS-APS at Lubbock, TX and one paper published. Now in Ph.D. studies at Texas A&M University.
- 11. <u>Federico López</u>, graduated in August 2004, in co-supervision with W. Durrer. One poster presented at TS-APS at Lubbock, TX and one paper published. Now in Ph.D. studies at Texas A&M University.
- <u>Olienka de la O Fernández</u>, Summer, 2005. Attended summer school in biophysics in Montreal, Canada in the summer of 2004, started Ph.D. studies in biophysics in Spain in Fall 2004, returned to UTEP to ESE Ph.D. program in Fall 2005.
- 13. <u>Luis Basurto</u>, graduated in December 2004, one oral presentation at the meeting of the Mexican Society of Physics in 10/2004. Enrolled at UTEP's MASE.
- 14. Federico López, M.S. August 2004, in co-supervision with W. Durrer. One poster presented at TS-APS at Lubbock, TX, now in Ph.D. studies at Texas A&M U.
- 15. Sergio Yanuén Rodríguez, M.S. August 2004, in co-supervision with W. Durrer. One poster presented at TS-APS at Lubbock, TX, now in Ph.D. studies at Texas A&M U.
- 16. **Jesús Escamilla Roa**, M.S. degree obtained in May 2003. Two publications, student presented his work at the <u>V Latin American Symposia in Santos</u>, Brazil (poster, 9/2003). Now a Ph.D. candidate at Texas Christian U.
- 17. Rafael Cárdenas, M.S. Degree obtained in May 2002. Co-op with Fabens High School in 01-02 AY, one publication, acknowledgement in a publication, one abstract published. Funded by my NSF grant from 1/1 to 4/1. Student presented his work at: APS meeting Forth Worth, TX (poster, 10/2001), Latin American Symposia in Mexico City (poster, 9/2001), and attended the two-week long 2nd Mexican Nuclear Physics School in Mexico city (4/2001). Completed Ph.D. studies at Texas Christian U. in december 2007.
- 18. Miguel Castro Colin, M.S. May 1998. Completed Ph.D. studies at U. Houston in 2004.
- 19. Milijana Sukavcevic, M.S. May 1998. Completed EDD studies at UTEP, 2003.
- **20. Batu Batu,** M.S. May 1998. Employed by the State of Minneapolis
- 21. Xiaofang Mu, M.S. May 1998. Continued with Ph.D. studies in Computer Engineering at UTEP.
- 22. Xiaoyu Wang, M.S. Aug. 1996, went for Ph.D. studies in Canada.
- 23. **Tim Robinson**, M.S. May 1996, "Breakup of Small Nuclei". Went for Ph.D. studies to Texas A&M University, now employed In Tahiti.
- 24. Zehua Wu, M.S. May 1996, went for M.S. in computer science at U. Houston.
- 25. **Raul Armendariz**, M.S. August 1996, "The Search for Gravity Waves". Selected as best physics thesis of the year. Mr. Armendariz was a JPL Cuesta Fellow from the Fall 1994 until the Summer of 1996. Now in Ph.D. studies at New Mexico State University of Washington.

- 26. Ganesh Thondikulam, M.S. August 1995, "Phase shifts of NN scatterings", now employed in Minneapolis.
- 27. **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". Earned Ph.D. at University of Washington, Seattle on march 2004.

B.S. Students

1. <u>Manuel Antonio Ramos</u>, research assistant from the Fall of 2001 to date, in the projects "Nuclear Fragmentation" and "Surface studies", two papers submitted, two presentations at TS-APS meetings, funded in the Fall 2001 by indirect cost funds and in 2002 by MIE, thesis defended on 11/2003, B.S. degree awarded in 12/2003. Now a M.S. student at UTEP.

4./5. STUDENT ADVISEMENT, MENTORING AND RESEARCH SUPERVISION

Student Research Supervision

- 1. <u>Jorge Muñoz</u>, undergraduate physics student, from the Fall of 2005 to date, in the project "Probabilistic Aspects of Isoscaling". Best Prese
- <u>Alán Dávila</u>, undergraduate physics student, from Spring of 2002 to May 2006, in the projects "Daylight Saving Time" and "Percolation". Funded by MIE. In 2005 he gave an oral presentation at the Texas Section- APS meeting in Houston on 10/2005, One publication in Physica A in 2006, and one submitted to Rev. Mex. Ciencias Políticas y Sociales, on 11/2005, presented posters at the Texas Section- APS meeting at Baylor U on 10/2004 and at the meeting of the Mexican Society of Physics in 10/2004, one publication to be submitted.
- **3.** Christian Escudero, undergraduate physics student, from Spring of 2000 to Dec. 2005, project "Nuclear Fragmentation", in 2005 he gave an oral presentation at the Texas Section- APS meeting in Houston on 10/2005, two publications
- **4. Antonio Ramos**, undergraduate physics student, from the Fall of 2001 to date, in the project "Nuclear Fragmentation". Funded in the Fall 2001 by indirect cost funds and in 2002 by MIE
- 5. Manuela Ortiz, undergraduate physics student, from the Fall of 2001 to date, in the project "Computer Simulations". Funded in the Fall 2001 by my CETAL grant and in 2002 by MIE.
- 6. Yazmín Domínguez, undergraduate physics student, from the Fall of 2001 to date, in the project "Computer Simulations". Funded in the Fall 2001 by my CETAL grant and in 2002 by MIE.
- Azael Ávalos, undergraduate physics student, from the Spring of 2000 to Fall 2002, in the project "Nuclear Fragmentation". Mr. Ávalos was acknowledged in one publication in 1999 and in my book in 2000.
- 8. Martha Navarro, undergraduate physics student, received a fellowship from the Alliance for Minority Participation. Attended IBM-San Jose Summer Program, from Fall 1998 spring 2000. Earned MS in Optics at U. of New Mexico.
- **9. Fabian Botello**, undergraduate physics during the summer of 1998, was an AMP Summer Bridge student.
- **10. Miguel Cortez**, undergraduate Psychology student, from the fall of 1997 to spring 1998. Continued in Ph.D. studies in Psychology in Washington.
- **11. Karina Apodaca**, undergraduate physics student, from the spring of 1997 spring 1998. Continued in Ph.D. studies at Hampton University.
- **12.** Jose Ricardo Correa, undergraduate physics student, from the spring of 1997 to date. Received a MIE fellowship. Transferred to U. North Texas.
- **13.** Mario F. Borunda, undergraduate physics student, from fall 1997 to Spring 2003, project: "Pixe with alphas from Americium; Spring 2003, project: "Surface Studies" supported by AMP, one publication. Continued in Ph.D. studies at Texas A&M University.
- **14.** Carlos Velasco, undergraduate physics student, from the spring of 1995 to 9/1996. Continued in Ph.D. studies at Hampton University.
- **15.** Rocio Gisel Olave, undergraduate physics student, from the Summer of 1995 to May, 1998. Continued in Ph.D. studies at Old Dominon University.
- 16. Richard Coronado, from fall 1995 to 1997. AMP/MIE undergraduate EE student <u>Richard Coronado</u>, since the Fall 1995. Awards: Best undergraduate presentation in TSAPS meeting in Fall 1996; 1st Place AMP Research Conference, July 1995; MIE Research Award 1995-1996; 2nd Place Engineering in UTEP's 1996 EXPO. Went to UT Austin for graduate studies in EE.

- 17. Jaime Morales, from summer 1995 to 1998. Awards: 1995-1996 APS-Corporate Sponsored Scholarship for Minority Undergraduate Students; AMP Research Award 1995-1996; 1st Place Physical Sciences in UTEP's 1996 EXPO. Recipient of GTE Scholarship from 9/96-5/1997. Continued with Ph.D. studies at U. Illinois at Urbana/Champaign.
- **18.** Mike Carroll, graduate physics student, from 11/94 to 5/95.
- **19. Raul Medellin**, undergraduate physics student, from the Fall of 1994 until 8/1996, one publication. Went to New Mexico State University for Ph.D. in Business Administration.
- 20. Francis C. Hoyt, LIFT-OFF student, summer 1994.
- **21. Veronica Alvarado**, RCMS undergraduate physics student, from Fall 1993 Spring 1994. Finished BS in Mechanical Engineering.
- **22.** Alfredo Aranda, undergraduate physics student, from the Fall 1993 until his graduation in 1996. Awards: Best undergraduate presentation in TSAPS meetings in Spring 1995 and Spring 1996, 1995-1996 SPS-Senior Award. Earned a Ph.D. at College of William and Mary in 2000, now employed as a professor at Universidad de Colima, in Mexico.
- **23.** Mario Borunda, MRCE graduate math student, during spring 1992 to summer 1994. Earned Ph.D. in physics at Mexico's Polytechnic Institute and is presently a professor at Juarez Autonomous University.
- 24. A. Guarnero, "Fermi-Dirac integrals", undergraduate student supported by MRCE UTEP, fall 1991.
- 25. F. D. Guzman, "Advanced Mathematica", undergraduate student, Summer 1991.
- **26.** Arturo Revilla, "Nuclear Projectile Breakup", undergraduate student, supported by The Center for Environmental Resource Management UTEP, for the period of October 1991 to May 1992. One acknowledgement in a conference proceedings, now a Ph.D. student in Materials Science and Engineering.
- **27.** Jose Ramirez, "Disassembly of Nuclear Drops", undergraduate student, supported by The Center for Environmental Resource Management UTEP, for the period of October 1990 to May 1991.
- **28.** Jose Lozano, MS physics student, fall 1990. Earned MS and Ph.D. in materials at UTEP. Currently a professor at Bradley University.

Thesis Committees

- 1. Matías Ison, Ph.D. Physics, defense 4/26/2006, Dr. Claudio Dorso, Universidad de Buenos Aires, Buenos Aires, Argentina.
- 2. John Olgin, MS Physics, Dr. P. Mason, defense 5/2006
- **3.** Hector Garcés, Member of EE Ph.D. Dissertation Committee, Dr. B. Flores, dissertation proposed on 2/2006
- 4. José Valadez, Member of Physics MS thesis Committee, Dr. A. Aranda, 5/2/2005.
- 5. Osvaldo Rodriguez, Member of MASE Ph.D. Dissertation Committee, Dr. C. Dirk, dissertation proposed on 11/2005.
- 6. Leticia Sifuentes, MS Computer Science (A. Gates), defense 8/2003
- 7. Hector Gonzalez Huizar, MS Physics (V. Smith), defense 8/2003
- 8. Roberto Arceo, MS Physics (R. Lopez), defense 5/2003
- 9. Alejandro Lugo, MS Physics (R. Lopez), defense 5/2003
- **10.** Pablo Balenzuela, Ph.D. Physics, defense 11/2002, Dr. Claudio Dorso, Universidad de Buenos Aires, Buenos Aires, Argentina.
- 11. Gopi Krishna Manne, MS ECE (Cabrera), Thesis defense 12/2002.
- 12. Miguel Delgado, MS Geology (Goodell), Thesis defense 12/2002.
- 13. Hector Garcés, MS ECE (Usevitch), Thesis defense 10/2002.
- 14. Miguel Angel Sagarnaga, MS ECE (Dirk), Thesis defense 9/26/2002.
- 15. Albert Peralez, MS Chemistry (Williams), Thesis defense 9/26/2002.
- 16. Alejandro Puga, MS Physics (Phil Cole). Thesis defense 11/2001.
- 17. Charlie Torres, MS Physics (M. Díaz, UT Brownsville). Defense 11/2001.
- 18. Leandro Trevino, Ph.D. Geology, Dissertation proposal 12/2001.
- 19. Shu Chan, MS Elec. Eng., 11/99.
- 20. Gabriel Thomas, Ph.D. Dissertation Committee, Elec. and Comp. Eng., 12/1998.
- 21. Jae Sok Son, Elec. Ph.D. Dissertation Committee, Comp. Eng., 12/1998.
- 22. Roberto Gabaldon, MS Elec. Eng., completed 12/98.
- 23. Anthony Smith, MS Physics, completed 8/1998
- 24. Rodrigo Mendoza, MS Elec. Eng., 12/97.

- 25. Javier Vega-Pineda, Ph.D. Elec. Eng., completed in 12/1997.
- 26. Gabriel Osorio, MS Elec. Eng., 7/97.
- 27. Raymundo Olague, Exam Committee, MS Mech. & Ind. Eng., completed 12/96.
- **28.** Jesus Del Villar, MS Elec. Eng., completed 12/96.
- 29. Jose de la Rosa, MS Elec. Eng., completed 12/96.
- 30. Aldo Lucero, MS Elec. Eng., completed 5/95.
- **31.** Chiouguey Joyce Chen, MS Elec. Eng., completed 12/1994.
- 32. Sergio A. Chaparro, MS Physics (Jeff Drucker) Phys. Dept., completed 12/1994.
- 33. Rajendra Kumar, MS Mech. & Ind. Eng., completed 12/1993.
- 34. Gabriel Thomas, MS, Elec. Eng. (Ben Flores), completed 8/1993.

6. INNOVATION IN CURRICULUM DESIGN, TEACHING-RELATED PROPOSALS, GRANTS AND CONTRACTS

Curriculum Design

- 1. **PHYS 3441 Electromagnetism**. Modification of content and development of teaching material in support to Dr. Harold Slusher, Summer 2006.
- 2. <u>PHYS 3331 Thermal Physics</u>. Modification of content and development of teaching material of PHYS 3331 in support to new faculty Dr. Tunna Baruah, Fall 2005.
- 3. <u>PHYS 3243: Radio Astronomy</u>. A radio telescope designed and constructed for PHYS 3243, with Luis Basurto, Spring 2005.
- 4. <u>PHYS 3325: Modern Physics</u>. Co-development of an in-class demo "Bohr Model Spectroscopy", with elaboration of pre- and post-exams, in collaboration with lecturer Jaime Morales. Fall 2004. Testing occurred in two Modern Physics Courses in the Fall of 2004.
- 5. <u>Survey of Modern Physics</u>. Introduction of web and powerpoint material for the teaching of PHYS 3325, Fall 2003.
- 6. <u>Alpha PIXE Spectroscopy</u>. Development of an in-class demo for modern physics, with pre- and postexams. With the help of physics student Mario Borunda and lecturer Jaime Morales. Fall 2002. Testing occurred in two Modern Physics Courses in the Fall of 2002.
- <u>Modern Physics</u>. Testing of three computer simulations of a set of eleven to add an interactive component to the course Phys 3325. With the help of physics students Manuela Ortiz and Jazmin Dominguez. Fall 2001 funded by CETAL. Testing occurred in two Modern Physics Courses in the Fall of 2001, Spring of 2002 and Fall of 2002.
- 8. <u>PHYS 5325</u>. Design of distance-learning course and web-based material for UT Brownsville students, Fall 1999.
- <u>UTEP-UT Brownsville Distance Learning Masters Program</u>. Proposer, designer and director of the program. Memorandum of understanding reviewed in 2000, first graduate in 2002, second one in 2004.
- <u>Termodinámica Nuclear</u>. Preparation of a two-week course in Spanish which was delivered to the 2nd Mexican Nuclear Physics School at Universidad Nacional Autónoma de México, Mexico City, 4/2001. Funded by UNAM and Soc. Mex. Física. Lecture notes published as a chapter in a book.
- 11. <u>PSCI 3304</u>. Design of course team-taught to education majors at Marion Manor Elementary in conjunction to ELED 3311. Fall 2000.
- 12. Physical Science, introduction of science kits for elementary school in the class Psci 3304, Fall 1998.
- 13. <u>Modern Physics</u>. Development of two computer simulations of a set of eleven to add an interactive component to the course Phys 3325. Since Fall 1995 to date.
- <u>Nuclear, Particles and Relativity</u>. 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.
- 15. <u>**Computational Physics**</u>. To develop a computer laboratory with funding from the College of Science and from an IBM donation to the Physics Department, 1994.
- 16. <u>Introduction to Physics</u>. 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.

Grant Proposals and Contracts

- 1. An Integrative Science Success, Teaching and Retention Program for STEM Education, PI: B. Flores, co-PIs; J. Becvar, H. Knaust, J. López and J. Tinajero, NSF-DUE, \$1,964,912, submitted on 26/Sep./2006. Pending.
- 2. PhysTec: Physics Teacher Education Coalition, letter of interest submitted on 1/Nov./2006, J. López, E. Hagedorn, and M. Suskavcevic, American Physical Society, \$300,000, not invited to apply.
- 3. Increasing minority representation in radiation oncology physics, PI: M. Manciu, co-PI: J. López, NIH-NCI, \$508,461, 19/Sep./2006. This is a research and education proposal. Awarded.
- Increasing the retention and success of STEM students through the middle years, PI: B. Flores, co-4. PIs: J. Becvar, M. Khamsi, J. López and J. Noveron, NSF-DUE, \$1,997,103, submitted on 9/Feb./2006. Denied.

2005

- Alliance of early education in physical science, PI: S. Blake, co-PI: J. López, NSF-ESI, \$1,349,542, 5. submitted on 14/Nov./2005. This was a research and education proposal. Denied.
- Increasing Hispanic participation in medical physics, PI: R. Waggener (UT Health Sciences Center at 6. San Antonio, co-PIs: J. López and M. Manciu, Texas Higher Education Board, \$149,300, Sep./2005. Denied.
- 7. Minorities in radiation oncology physics, PI: J. López, co-PI: M. Manciu, NIH-NCI, \$344,760, submitted on Feb./2005. This was a research and education proposal. Denied.

2004

CREST: Center for Computational Science and Engineering, PI: J. López, co-PIs: D. Doser, R. 8. Ravelo, B. Usevitch, and D. Williams, NSF-CREST program, \$4,948,000, submitted on 1/21/2004. Denied.

2003

- 9. 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. Not invited to apply.
- 10. Proposal to UTTeleCampus for Physics MS Core Courses, PI: J. López, UT TeleCampus Program, requesting \$64,980 from agency for a project total of \$115,254, submitted on 3/14/2003. Not funded.
- 11. Proposal for a Joint Program on Physics Instrumentation, PI: G. Sewell, co-PIs: M. Mechetti (Univ. de Tucuman, Argentina) and J. López, Fulbright Alumni Initiative Awards Program, \$24,592, submitted on 2/12/2003. Not funded.
- 12. CREST: Center for Computational Science and Engineering, PI: J. López, co-PIs: C. Chiu, D. Doser, H. Nazeran, R. Ravelo, and B. Usevitch, NSF-CREST program, \$4,918,105, submitted on 14/1/03. Denied.
- 13. Student Sponsorship at the Fifth Latin American Symposium on Nuclear Physics, PIs: P. Cole and J. López, NSF-International Programs, \$18,000, submitted on 16/12/2003. Funded.

2002

- 14. Laboratory for Undergraduate Education in Surface Studies, PIs: J. López and W. Durrer, NSF-CCLI-DUE, \$199,984, submitted on December 4, 2002. Denied.
- 15. Development of a Laboratory for Research and Graduate and Undergraduate Education in Surface Studies, PIs: J. López and W. Durrer, NSF-DMR-IMR, \$70,000, submitted on January 25, 2002. Denied.
- 16. Review of book "Modern Physics" by Mark Edwards, McGraw-Hill, \$150, 7/2002.
- 17. 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. Funded. 2001

- 18. Computer Simulations, submitted to CETAL for \$6,500, from 4/2001 to 5/2002. Funded.
- 19. 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. Not funded.

- 20. Search of Gravitational Radiation, submitted to NASA OSS/DEOP MUERPISS program, \$500,000, 9/5/2000. Not funded.
- 21. Review of book "Concept of Modern Physics" by Beiser, McGraw-Hill, \$275, 7/2000.
- 22. Assessing Virtual Experiments in High School and Preparatoria Students, \$1,705.60, CIABS, UTEP, from 9/2000 to 8/2001, funded.

- 23. <u>Computational Physics</u>, \$7,000, submitted to the Teaching Effectiveness Committee, in collaboration with Ramon Ravelo, 1996, not funded.
- 24. <u>Computational Physics Course</u> with R. Ravelo, for approximately \$12,000, submitted to Texas Instruments in December 1996. Not funded.
- **25.** <u>Computer-Based Laboratory for Modern Physics</u> \$88,574, The National Science Foundation DUE-ILI-LLD Program, funded in 9/1996.
- 26. <u>Hands-on Physics Activities for K-6th Grade Dual Language Classes</u>. \$35,617, Eisenhower Program, Texas Higher Educ. Coord. Board, Mar. 1996, not funded.
- 27. <u>Computer-Based Modern Physics Laboratory</u> \$9,868, UTEP's Model Institution of Excellence, funded in 6/1996.
- 28. <u>Hands-on Physics Activities for K-6th Grade Dual Language Classes</u>. \$12,000, Ysleta School District, Sept.. 1999, funded
- **29.** <u>Calculator Based Physics Courses</u> with L. G. Valdez, for approximately \$25,000, submitted to Texas Instruments in October 1996. Not funded.

1997

- **30.** <u>Reforma a la Educacion de la Ciencia: El Constructivismo en la Ensenanza de la Fisica</u>, for approximately \$12,000, submitted to University Autonoma of Chihuahua Campus Juarez on 10/97. Not funded.
- **31.** <u>Physics Projects for Upper-Level Math Courses</u>, for approximately \$15,000, submitted to UTEP's Model Institution of Excellence on 10/1997 in collaboration with Luis Valdez Sanchez. Not funded.
- 32. 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, not funded, 11/1997
- **33.** <u>Proposal to Improve the Upper-Level Physics Courses</u>, approximately \$4,500, submitted to UTEP's Model Institution of Excellence on 12/1997. Not funded.

1996

- 34. <u>Physics Workshop for Teachers from Durango Mexico</u> 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. Funded.
- **35.** <u>Hands-on Physics Activities for K-6th Grade Dual Language Classes</u>. \$35,617, Eisenhower Program, Texas Higher Educ. Coord. Board, Mar. 1996, not funded.
- **36.** <u>Computer-Based Modern Physics Laboratory</u> \$9,868, UTEP's Model Institution of Excellence, funded in 6/96.
- 37. <u>Computer-Based Laboratory for Modern Physics</u> \$88,574, The National Science Foundation DUE-ILI-LLD Program, funded in 9/96 for the period 9/96 – 8/99. Funded.
- **38.** <u>Calculator Based Physics Courses</u> with L. G. Valdez, for approximately \$25,000, submitted to Texas Instruments in October 1996. Not funded.
- **39.** <u>Computational Physics Course</u> with R. Ravelo, for approximately \$12,000, submitted to Texas Instruments in December 1996. Not funded.

1995

- 40. <u>Excellence in Technology, Engineering, and Science Grant</u> 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.
- **41.** <u>In-Service Workshops in Chemistry & Physics for grades K-8</u> \$77,133, Eisenhower Program, Texas Coordinating Board, submitted in March 1995 in collaboration of Dr. J. Becvar, not funded.
- **42.** <u>Research Career for Minority Scholars</u>, grant proposal submitted to the National Science Foundation with Dr. Arturo Bronson, for \$1,389,301, 2/1995. Not funded.

- 43. <u>Computational Physics</u>, \$6,800, submitted to the College of Science, funded in 9/94.
- 44. <u>NASA Physics Centers</u>, \$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.

- <u>Subcontracted by UT Austin</u> (McDonald Observatory) as the technical editor for the production of Spanish radio show "Universo" used in high schools throughout the United States. Funded by grants from the National Science Foundation, Ford, Honda, etc. to UT-Austin. Since 9/94 to date.
 1993
- 46. <u>El Paso Physics Link</u>, 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. Funded.
- 47. <u>El Paso Physics Link</u>, \$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, funded.
- **48.** "<u>The Annie Casey Foundation Physics Centers</u>", J.A. López and C.H. Cooper, proposal submitted on July 1, 1993 to <u>The Annie Casey Foundation</u>, proposal for \$50,000 for a two year period submitted in November, 1993. Not funded.
- **49.** "<u>Research on the Teaching of Computational Physics</u>", J.A. López, submitted on June 14, 1993 to <u>The University Research Institute UTEP</u>, requesting \$2,800 for the period of November 1993 to August 1994. Not funded.
- 50. "<u>The America West Airlines Physics Center</u>", J.A. López and C.H. Cooper, submitted on July 1, 1993 to <u>America West Airlines Foundation</u>, requesting \$5,000 for a total project cost of \$9,829, for the period of November 1, 1993 to October 31, 1994. Not Funded.

51. "<u>Microcomputers in Education - Software for Teaching Mathematics to Bilingual College</u> <u>Students</u>", M. Calderon, J.A. López, G. Shaw, and H. Herrera, submitted on April 1992 to The TeachingEffectiveness Committee - UTEP, requesting \$7,500 for the period of September 1992 to August 1993. Not Funded.

7. PRODUCTION OF TEACHING MATERIAL

2006

- 1. <u>Physics 4341 Electromagnetism</u>, co-development of lecture notes and powerpoint presentations to teach Phys 4341 with Dr. Harold Slusher, summer 2006.
- 2. <u>Electromagnetism</u>, lecture notes and powerpoint material for PHYS 5341, 52 pages, Spring 2006.

2005

- 3. <u>Physics 3331 Thermal Physics</u>, Co-development of lecture notes and powerpoint presentations to teach Phys 3331 in support to new faculty Dr. Tunna Baruah, Fall 2005.
- 4. <u>Middle School Physics</u>, Powerpoint material for a two-day workshop for UTEP's MSP Staff Developers, Dec. 2005.
- 5. <u>Advanced Statistical Mechanics</u>, lecture notes and powerpoint material for PHYS 5361, 71 pages, Fall 2005.
- <u>Lecture Notes: "Reacciones de Iones Pesados</u>", prepared for a workshop for graduate physics majors held at The Universidad Nacional Autónoma de México, on June 27-8, 2005, published in "Notas, IV Escuela Mexicana de Física Nuclear", Eds. A.F. Aguilera, E. Hernandez, and J. Hirsch, Universidad Nacional Autónoma de México, 2005, Pp. 1-13, <u>http://www.teorica.fisica.unam.mx/escuela-2005/</u>.
- 7. <u>Deepening Science Knowledge for High School Physics Teachers</u>. Printed and Powerpoint material for a two-day bilingual workshop for teachers, 20 pages, July, 2005.
- 8. <u>Physics for Pre-K and K Students Bilingual Seminar for Teachers</u>. Printed and Powerpoint material for a bilingual seminar for teachers, 80 pages, June, 2005.

2003

1. <u>Survey of Modern Physics</u>. Web and Powerpoint material for PHYS 3325. See <u>http://physics.utep.edu/Physics/Personnel/Professors/JLopez1.html. Fall 2003</u>.

2002

2. "<u>Alpha-Pixe</u>: In-class demonstration for PHYS 3325, Modern Physics, with Pre- and Post-Exams and Activity Guide", J. A. López, J. Morales, and M. Borunda, Fall 2002.

- 3. "Planck's constant: Revision of Pre- and Post-Exams and Activity Guide", J. A. López, Fall 2001.
- 4. <u>"PHOTOELECTRIC EFFECT</u>: Pre- and Post-Examinations and Activity Guide", J. A. López, Spring 1999.
- 5. "Compton scattering: Revision of Pre- and Post-Exams and Activity Guide", J. A. López, Spring 2001.

6. "<u>Termodinámica nuclear</u>", J. A. López, Universidad Nacional Autónoma de México Press, Mexico City, April, 2001. Chapter two in a book for senior level course on nuclear physics.

2000

7. "Lecture notes on phase transitions in nuclear matter", J. A. López and C. O. Dorso, World Scientific Publishing Co., Singapore, October, 2000, ISBN 981-02-4007-4. Book for graduate level course on nuclear physics, was in World Scientific's Best Seller list in year 2001, and was adopted in the Spring of 2001 as a textbook in Caen, France.

1998

- 8. "ZEEMAN EFFECT: Pre- and Post-Examinations and Activity Guide", J. A. López, Fall 1998.
- **9.** "<u>BLACK-BODY RADIATION</u>: Pre- and Post-Examinations and Activity Guide", J. A. López, Fall 1998.
- **10.** "<u>COMPTON SCATTERING</u>: Pre- and Post-Examinations and Activity Guide", J. A. López, Spring 1998.

1997

- 11. "<u>THE RUTHERFORD/COMPTON EXPERIMENT</u>: Pre- and Post-Examinations and Activity Guide", J. A. López, Spring 1997, tested in Fall 97.
- 12. "<u>THE STERN GERLACK EXPERIMENT</u>: Pre- and Post-Examinations and Activity Guide", J. A. López, Fall 1997.
- **13.** "<u>THE DAVISSON GERMER EXPERIMENT</u>: Pre- and Post-Examinations and Activity Guide", J. A. López, Fall 1997.

1996

- 14. "<u>THE FRANK-HERTZ EXPERIMENT</u>: Pre- and Post-Examinations and Activity Guide", J. A. L—pez, Fall 1996.
- **15.** "<u>Universo Almanaque Celestial 1996</u>", published by McDonald Observatory of the University of Texas, 1/1/96. Contributed as technical editor.
- "<u>Universo Almanaque Celestial 1997</u>", published by McDonald Observatory of the University of Texas, 1/1/96. Contributed as technical editor.

1994

- **17.** "<u>Universo" Compact Disks</u> 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 date.
- **18.** "<u>EXPERIMENTS FOR GENERAL PHYSICS 4104</u>", J. A. López, Published by Burgess International Group, 1994.

1993

19. "<u>EXPERIMENTS FOR GENERAL PHYSICS 4103</u>", J. A. López, Published by Burgess International Group, 1993.

8. AWARDS AND HONORS FOR TEACHING

- 1. <u>2008 UTEP's Science and Engineering Award for Outstanding Graduate Thesis</u>, to my MS student Christian Escudero, 2008.
- 2. <u>2004 UTEP's Science and Engineering Award for Outstanding Graduate Thesis</u>, to my MS student Jesus Escamilla Roa, 2004.
- 3. "<u>Meritorious Performance and Professional Promise Award</u>", given by California Polytechnic State University, March 1990.
- 4. "<u>Affirmative Action Faculty Development Program Award</u>", given by The Graduate Studies, Research and Faculty Development Office of California Polytechnic State University, February 1990.

RESEARCH (2001 TO 2003)

1. PUBLICATIONS

Books and articles published in books

- J. A. López, "<u>Reacciones de Iones Pesados</u>", published as chapter 1 in "Notas, IV Escuela Mexicana de Física Nuclear", Eds. A. F. Aguilera, E. Hernandez, and J. Hirsch, Universidad Nacional Autónoma de México, 2005, Pp. 1-13.
- J. A. López, A. Duarte-Moller, M. L. López, W. Durrer, F. López, 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.
- J. A. López, A. Barrañón, R. Cárdenas, and C. O. Dorso, "<u>Critical Fragmentation</u>", 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.
- 4. J.A. López E. Chavez, M. Moshinsky, and M.E. Borunda, Eds., Heavy Ion Physics, Vol. 16, No. 1-4, 2002.
- J.A. López E. Chavez, M. Moshinsky, and M.E. Borunda, Eds., "Proceedings of the IV Latin <u>American Symposium on Nuclear Physics</u>", published by UACJ Press, ISBN 968-7845-36-8, September, 2001.
- 6. J. A. López, "<u>Termodinámica Nuclear</u>", in II Escuela Mexicana de Fisica Nuclear, Aguilera, Chavez, Hess, Eds., Universidad Nacional Autonoma de Mexico Press, Mexico City, April, 2001. Chapter two in a book for a graduate level course on nuclear physics.
- 7. J.A. López and C. O. Dorso, "Lecture Notes on Phase Transitions in Nuclear Matter", published by World Scientific, ISBN 981-02-4007-4, October, 2000.

Refereed Publications

2007

- 1. C. O. Dorso and J. A. López, "<u>Nonequilibrium effects in Isoscaling</u>", to be published in "Sixth Latin American Symposium on Nuclear Physics and Applications", Eds. Civitarese, Dorso, García Bermúdez, Kreiner, Pacheco, and Scoccola, American Institute of Physics, 2007.
- C. R. Escudero, J. A. López and C. O. Dorso, "<u>Thermal Symmetry in Isoscaling</u>", to be published in "Sixth Latin American Symposium on Nuclear Physics and Applications", Eds. Civitarese, Dorso, García Bermúdez, Kreiner, Pacheco, and Scoccola, American Institute of Physics, 2007.
- 3. A. Dávila and J. A. López, <u>"Daylight Savings Time"</u>, submitted to Rev. Mex. Ciencias Políticas y Sociales, <u>http://www.politicas.posgrado.unam.mx/Revistas/revista.htm</u>.
- 4. M. Castro-Colín, J.A. López, and R. Osegueda, "Laser-induced lamb waves in Al plates", submitted to Rev. Mex. Fis.
- A. Dávila, C. R. Escudero, J. A. López and C. O. Dorso, "<u>Geometrical aspects of isoscaling</u>", Physica A374, Pp. 663-668, 2007, <u>http://lanl.arxiv.org/PS_cache/nucl-th/pdf/0504/0504037.pdf</u>.

- P. Amore, A. de Pace and J. A. López, "<u>Analytical approximations to the spectra of quark-antiquark potentials</u>", Journal of Physics G32, 1061-1071, 2006, <u>http://arxiv.org/PS_cache/hep-ph/pdf/0602/0602114.pdf</u>.
- A. Barrañón, J. A. López, F. L. Castillo-Alvarado, "Nuclear Matter Critical Temperature and Charge Balance", in "Advances in Systems, Computing Sciences and Software Engineering", Proceedings of SCSS 2005, <u>http://www.cisse2005.org/eiae.aspx</u>, Sobh, Tarek; Elleithy, Khaled (Eds.) 2006, XIV, 437 p., Hardcover. ISBN: 1-4020-5262-6, 2006, <u>http://www.springer.com/west/home/generic/search/results?SGWID=4-40109-22-173666731-0</u>
- C. O. Dorso, C. R. Escudero, M. Ison and J. A. López, "<u>Dynamical aspects of isoscaling</u>", Phys. Rev. C73, 044601, 2006. http://lanl.arxiv.org/PS_cache/nucl-th/pdf/0504/0504036.pdf.
- A. Barrañón and J. A. López, "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

- C. O. Dorso and J. A. López, "<u>Nonequilibrium effects in Isoscaling</u>", submitted to Heavy Ion Physics on 12/2005.
- 2. C. R. Escudero, J. A. López and C. O. Dorso, "<u>Thermal Symmetry in Isoscaling</u>", submitted to Heavy Ion Physics on 12/2005.
- 3. P. Amore and J. A. López, "<u>The spectrum of a quantum potential</u>", **quant-ph/0405090**, submitted to Phys Lett. A, 12/2004, <u>http://xxx.lanl.gov/PS_cache/quant-ph/pdf/0405/0405090.pdf</u>.
- 4. A. Dávila and J. A. López, "<u>Daylight Savings Time</u>", submitted to Rev. Mex. Ciencias Políticas y Sociales, on 11/2005, <u>http://www.politicas.posgrado.unam.mx/Revistas/revista.htm</u>.
- A. Dávila, C. R. Escudero, J. A. López and C. O. Dorso, "<u>Geometrical aspects of isoscaling</u>", submitted to Physica A, on 11/2005, <u>http://lanl.arxiv.org/PS_cache/nucl-th/pdf/0504/0504037.pdf</u>.
- 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. López, J. L. Gardea-Torresdey. Rn-222 air concentrations in Chihuahua state (México) dwellings and in the U.S./Mexico border, Microchemical Journal. Vol 81. pp. 28-34, 2005.
- A. Barranón and J.A. López. "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.
- 11. A. Barranón and J.A. López. "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.
- A. Barrañón, J. A. López, and F. L. Castillo-Alvarado, "Estudio teórico del cambio de fase líquidogas en la materia nuclear", in "AppliedMath - Memorias, 1er Taller de matemáticas Aplicadas, Eds. F. J. Búlnes Aguirre, P.A. Tamayo Mesa, and E. Cauich Soriano, Instituto Politécnico Nacional, ISBN 970-36-0290-8, D.F., Mexico, Pp. 57-66, 2005.
- A. Barrañón and J. A. López 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.
- Armando Barrañón, J.A. López 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.
- A. Barranón and J. A. López, "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.

- A. Barrañón, J. Escamilla Roa, and J. A. López, "Entropy in the nuclear caloric curve", Phys. Rev. C69, 014601, pp. 1-6, 2004.
- P. Amore, A. Aranda, A. de Pace and J. A. López, "<u>A Comparative Study of Quantum Anharmonic Potentials</u>", Phys. Lett. A 329, 451-458, 2004, <u>http://arxiv.org/PS_cache/quant-ph/pdf/0310/0310079.pdf</u>.
- A. Barrañón, J. Escamilla Roa and J. A. López, "<u>The Transition Temperature of the Nuclear caloric Curve</u>", Brazilian Journal of Physics, **34-3A**, Pp. 904-906, 2004.

2003

- L. Colmenero Sujo, M. E. Montero Cabrera, L. Villalba, S. de la Cruz Gandara, J. Saenz Peinado, M. Rentería Villalobos, E. F. Herrera Peraza, J.L. Gardea-Torresdey, J. Lopez, "<u>Rn-222 Air</u> <u>Concentration in Dwellings at Chihuahua State and the Border United States</u>", submitted to Journal of Radio Analytical Chemistry, 2003.
- 20. A. Barrañón, J. Escamilla Roa, and J. A. López, "Entropy in the nuclear caloric curve", in print, Phys. Rev C 69, 0146xx, six pages, 2003.
- 21. Armando Barrañón, Claudio O. Dorso, y Jorge A. López, <u>Enfriamiento de Curvas Caloríficas en las</u> <u>Colisiones de Iones Pesados</u>, Información Tecnológica, Vol. **14**, No. 5, pp. 31-34, 2003.
- 22. A. Barrañón, R. Cárdenas, C. O. Dorso, and J. A. López, "<u>The Critical Exponent of Nuclear Fragmentation</u>", Heavy Ion Physics **17**, 1, 2003.

- 23. C. O. Dorso, and J. A. López, "<u>Selection of critical events in nuclear fragmentation</u>", Phys. Rev. C64, 027602, 2001.
- A. Chernomoretz, C. O. Dorso, and J. A. López, "<u>Obtaining the caloric curve from collisions</u>", Phys. Rev. C64, 044605, 1/2001.

- J. A. López, "La Nueva termodinamica: termodinamica de sistemas finites y tiempos cortos", Rev. Mex. Phys. 47, 5, 2001.
- S. Blake, T. Brady, C. Della-Piana, A. Duval, J. Lopez, A. Pacheco, M. Tchoshanov, "<u>The Clinical</u> <u>Model: Innovative experience of teacher preparation</u>", Direktor Shkoly (Moscow), 5, 73-81, 2001.
- 27. S. Blake, T. Brady, C. Della-Piana, A. Duval, J. Lopez, A. Pacheco, M. Tchoshanov, "Инновационный опыт подготовки учителя в Техасском университете" (Clinical Model: How do they prepare teachers in Texas?), Sto Druzei (Uchitel'skaya Gazeta, Moscow), May 17, 2001.
- A. Barrañón, C. O. Dorso, J. A. López, "<u>Searching for criticality in nuclear fragmentation</u>", Rev. Mex. Phys. 47-S.2, 93-97, 2001.

- 29. C. O. Dorso, J. A. López and R. Medellin, "Criticality in nucleation", Heavy Ion Physics, **11**, 279, 2000.
- A. Chernomoretz, C. O. Dorso, and J. A. López, "<u>The caloric curve in collisions</u>", Heavy Ion Physics, 11, 333, 2000.

1998

- T.-S. H. Lee, J. A. López, J. Morales and G. Thondikulam, "Separable Potentials for the Hadronic Phase", Heavy Ion Physics 7, 263, 1998.
- 32. C. O. Dorso, J. A. Lopez and X. Wang, "Probability Distribution in nuclear fragmentation", Phys Rev C58, 2986, 1998.

1997

- 33. Y. Larochelle, L. Gingras, L. Beaulieu, X. Qian, Z. Saddiki, B. Djerroud, D. DorŽ, R. Laforest, R. Roy, M. Samri, C. St-Pierre, J. A. Lopez and T. Robinson, "Formation of a Neck-like Structure in 35Cl + C and 197Au Reactions at 43 MeV/Nucleon", Phys. Rev. C55, 1869 1997.
- A. Aranda, J. A. Lopez, and Z. Wu, "<u>Preferred Modes of Decay in Nuclear Fragmentation</u>", Phys. Rev. C55, 788 1997.

1996

- 35. Y. Larochelle, L. Gingras, L. Beaulieu, X. Qian, Z. Saddiki, B. Djerroud, D. Doré, R. Laforest, R. Roy, M. Samri, C. St-Pierre and J. A. Lopez, "Formation of an Intermediate Velocity Remnant in <u>35Cl + C, ²⁴Mg and ¹⁹⁷Au Preferred Modes of Decay in Nuclear Fragmentation</u>", Phys. Rev. C, 1996.
- 36. J. A. Lopez, "TST: Summary of Results", J. Heavy Ions 3, 141, 1996.

1995

- 37. A. Aranda, C. Dorso, V. Furci and J. A. Lopez, "<u>Fluctuations in Nuclear Fragmentation</u>", Phys. Rev. C 52, 3217, 1995.
- A. Aranda and J. A. Lopez, "<u>On the Breakup-Volume of Nuclear Fragmentation</u>", Rev. Mex. Fis. 41, 90, 1995.

1994

- M. Borunda and J.A. Lopez, "<u>On the Formation of Hollow Configurations in Heavy-Ion Collisions</u>", Il Nuovo Cimento **107A**, 2773, 1994.
- 40. J.A. Lopez and J. Randrup, "<u>Theory of Nuclear Fragmentation III: Pretransition Particle Emission</u>", Nuclear Physics **A571**, 379, 1994.
- 41. A. Aranda, C. Dorso, and J.A. Lopez, "<u>The Onset of Fragmentation</u>", Rev. Mex. Fis., **40**, 191, 1994. **3**
- 1993
 42. J. Pouliot, L. Beaulieu, B. Djerroud, D. Dore, R. Laforest, R. Roy, C. St-Pierre, and J.A. Lopez, "Evidence for the Statistical and Sequential Nature of ¹⁶O Breakup Into Four Alphas", Physical Review, C48, 2514, 1993.
 - 43. R. Donangelo, J.A. Lopez and J. Randrup, "Energy Dependence of Massive-Fragment Multiplicity", Physical Review, C48, pp. 465-467, 1993.
 - 44. J. Poliout, D. Dore, R. Laforest, R. Roy, C. St-Pierre, and J.A. Lopez, "<u>On the Breakup of Excited</u> <u>160 Into Four Alphas at Intermediate Energies</u>", Physics Letters, **B299**, pp. 210-213, 1993.

1992

- 45. J.A. López and J. Randrup, "<u>SOS: Sequential or Simultaneous Nuclear Multifragmentation</u>", Computer Physics Communications, **70**, pp. 92-96, 1992.
- 46. J.A. López, "Nuclear Spinodal Decomposition", Rev. Mex. Fis., 38, pp. 95-101, 1992.

- B.J.T. Jones, J.A. López, V.J. Martinez and E. Saar, "<u>Mean-field Correlations in the Center of Rich Galaxy Clusters</u>", Il Nuovo Cimento, **B106**, pp. 933-940, 1991.
- B. Jakobsson, L. Karlsson, and J. López, "<u>Hot-Zone Evolution and Pre-Equilibrium Emission in</u> <u>Interactions Between Nuclei</u>", Nuclear Physics, A531, pp. 143-163, 1991.
- C. Dorso and J.A. López, "<u>Deformation and Interaction Energies in Statistical Multifragmentation</u>", Il Nuovo Cimento, A104, pp. 135-138, 1991.

- 50. J.A. López and J. Randrup, "<u>Theory of Nuclear Fragmentation: II Post-Transition Dynamics</u>", Nuclear Physics **A512**, p. 345, 1990.
- B.A. Harmon, J. Pouliot, J.A. López, J. Suro, R. Knop, Y. Chan, D.E. DiGregorio, and R.G. Stokstad, "<u>Kinematical Signatures of the Projectile Breakup Process at 32.5 MeV/Nucleon</u>", Physics Letters, **B235**, p. 234, 1990.

1989

- 52. J.A. López and J. Randrup, "<u>Theory of Nuclear Fragmentation: ITransition State Treatment of the</u> <u>Breakup Process</u>", Nuclear Physics **A503**, pp. 183-222, 1989.
- 53. J.A. López and G. Lubeck, "<u>Nuclear Spinodal Decomposition</u>", Physics Letters **B219**, pp. 215-221, 1989.
- R.F. Alvarez-Estrada and J.A. López, "<u>Hot Gluon Plasma at Large Distances</u>", Journal of Physics, G15, pp. 1185-1202, 1989.
- 55. J.A. López and J. Randrup, "<u>Multifragmentation Versus Sequential Fission: Observable Differences?</u>", Nuclear Physics, **A491**, pp. 477-491, 1989, cited 38 times.
- 56. J.C. Parikh, P.J. Siemens, and J.A. López, "Instability of the Plasma Oscillations in Finite Temperature Perturbative QCD", Pramana, **32**, pp. 555-561, 1989.

1988

- 57. H. Barz, H. Schulz, J. Bondorf, J. López, and K. Sneppen, "<u>On Isotopic Yield Ratios of Complex</u> <u>Fragments From Heavy Ion Induced Reactions</u>", Physics Letters, **B211**, pp. 10-13, 1988.
- H. Barz, J. Bondorf, J.A. López, and H. Schulz, "<u>Emission Temperature and Source Radii Inferred</u> <u>From Two-Particle Correlation Measurements in Nuclear Collisions</u>", Physical Review, C37, pp. 2910-2912, 1988.

1987

- 59. H. Barz, J. Bondorf, R. Donangelo, J.A. López, and H. Schulz, "<u>Ternary Versus Binary</u> <u>Fragmentation Processes</u>", Physics Letters, **B194**, pp. 459-462, 1987.
- 60. H. Barz, J. Bondorf, C. Guet, J. López, and H. Schulz, "<u>Subtreshold Pion Production and Statistical</u> <u>Multifragmentation in Nucleus-Nucleus Collisions</u>", Europhysics Letters, **4**, pp. 997-1001, 1987.

1984

- 61. J.A. López, J.C. Parikh and P.J. Siemens, "<u>Testing QCD Plasma Formation by Pion Correlations in</u> <u>Relativistic Nuclear Collisions</u>", Physical Review Letters, **53**, pp. 1216-1218, 1984.
- 62. J.A. López and P. Siemens, "<u>Nuclear Fragmentation</u>", Nuclear Physics, A431, p. 728, 1984, cited 71 times.

1983

63. E.A. Dean and J.A. López, "<u>Empirical Dependence of Elastic Moduli on Porosity for Ceramic Materials</u>", Journal of The American Ceramic Society, **66**, p. 366, 1983.

Web publications and unpblished manuscripts

2003

- 1. Barrañón, A. and J. A. López, "Dynamical study of spinodal decomposition in heavy ion collisions", Mar. 2005, 5 pages., <u>http://lanl.arxiv.org/PS_cache/nucl-th/pdf/0503/0503077.pdf</u>.
- 2. Barrañón, A. and J. A. López, "A HIC primitive spinodal decomposition signature", Mar. 2005, 5 pages., <u>http://lanl.arxiv.org/PS_cache/nucl-th/pdf/0503/0503070.pdf</u>.

- González-Valenzuela C., A. Duarte-Möller, A. Hernández, M. A. Ramos, J. A. López, F. Castillón Barraza, W. de la Cruz, L. Cota Araiza, "Influence of N at different partial pressures during growing <u>TiN by PLD</u>", posted in Chemweb on 11/27/2003: www.chemweb.com/preprint?url=/physchem/0311007/.
- 4. J. Escamilla Roa and J. A. López, "<u>A Model for Nuclear Matter</u>", six pages, 2003.

- Jorge A. López, O. Arcaraz, A. Duarte Moller, W. Durrer, J. L. Gardea Torresdey, F. López, M. A. Ramos, S. Y. Rodríguez and D. Zubia, "<u>Radiation studies in engineering, environmental science and industry at UTE</u>P", unpublished, 2003.
- A.Duarte-Moller,, M. L. López, J. A. López, William Durrer, M. A. Ramos, P. Sánchez-Santiago and J. L. Gardea-Torresdey, "Growth and characterization of gold nanoparticles, produced by esterified Hop biomass deposited on Si substrates", posted in Chemweb on 12/2003: www.chemweb.com/preprint?url=/physchem/0312004/.
- Armando Barrañón, Jorge A. López, C. O. Dorso, y Fr. De Landa Castillo, "<u>Critical Nucleation in Colossal Magnetoresistence</u>", 13 pages, posted on 1/5/2003 on <u>http://arxiv.org/PS_cache/cond-mat/pdf/0301/0301043.pdf</u>.

- 8. J. A. López, M. Suskavcevic, and C. Velasco, "<u>Modern Physics Simulations</u>", unpublished, 2001. 1998
 - 9. J.D. Anderson, R. Armendariz, R. Coronado, E. Lau, and J.A. Lopez, "Search of Gravity Waves", unpublished, 1998.

1992

10. J.A. López and J. Lozano, "Electrostatics of Scratched Electrodes", 1992.

1985

- **11.** J.A. López, J.C. Parikh and P.J. Siemens, "<u>The Quark-Gluon Plasma in Linear Response</u>", Texas A&M report, 1985, unpublished, cited 13 times.
- **12.** J.A. López, J.C. Parikh and P.J. Siemens, "<u>Instability of the QCD Plasma</u>", Texas A&M report, 1985, unpublished, cited 11 times.

Publications in conference proceedings

2006

- R. Gamboa, C. Dorso, C. Escudero and J. López, "Dependence of isoscaling on the nuclear equation of state", published in The Bulletin of The American Physical Society, Oct. 2006, Abstract P1.00022, <u>http://meetings.aps.org/Meeting/TSF06/Event/56045</u>.
- C. Escudero, C. Dorso, A. Dávila, M. Ison and J. López, "Dynamical and geometrical aspects of isoscaling", published in The Bulletin of The American Physical Society, Oct. 2006, Abstract HEP1.00007, <u>meetings.aps.org/Meeting/TSF06/Event/55955</u>.
- J. Muñoz, J. López, C. Dorso and C. Hernández, "Probabilistic aspects of isoscaling", published in The Bulletin of The American Physical Society, October 2006, Abstract OT1.00006, <u>http://meetings.aps.org/Meeting/TSF06/Event/56016</u>.
- <u>A. Barrañón</u>, C. Dorso, J. A. López Gallardo, "Equilibrio local y dependencia temporal de la temperature isotópica en colisiones de iones pesados", published in the Memorias of the XLIX Congreso Nacional de la Sociedad Mexicana de Física, Oct. 16-20, 2006, San Luis Potosí, SLP, México, abstract 1SB06, <u>http://www.smf.mx/CNF-2006/Programa/memorias_ind.pdf</u>.
- L. Sandoval and J. López, "Using linear delta expansion for the solution of the Schrödinger equation", published in The Bulletin of The American Physical Society, October 2006, Abstract F1.00014, <u>http://meetings.aps.org/Meeting/4CF06/Event/55800</u>.
- <u>A. Barrañón</u>, J. A. López Gallardo, F. De L. Castillo, "Termómetros isotópicos y termalización rápida en las colisiones de iones pesados", published in program of the XXI Congreso Nacional de termodinámica, Colima, Colima, Mexico, 5 Sept., 2006, Session VI "Statistical Thermodynamics", <u>http://www.imp.mx/smt/xxi/</u>.
- <u>A. Barrañón</u>, J. A. López Gallardo, F. De L. Castillo, "Dynamical Instablities and Entropy in Heavy Ion Colisions Spinodal Decomposition Limit Temperatures", published in program of the Ninth Pan American Congress Of Applied Mechanics -Pacam IX, Merida, Yucatan, Mexico, Jan. 2-6, 2006, Session Dynamics IV, <u>http://www.mae.ncsu.edu/pacamix/</u>.

2005

 <u>Armando Barrañón</u>, Jorge Alberto López Gallardo, F. De L. Castillo, "Nuclear matter, critical temperature and charged balance" published in program of the International Joint Conferences on Computer, Information, and Systems Sciences, and Engineering (CIS²E 05), December 10-20, 2005, abstract SCSS 05, <u>http://cisse2005.org/</u>.

- <u>Armando Barrañón</u>, Jorge Alberto López Gallardo, F. De L. Castillo, "Producción de fragmentos ligeros y termalización rápida en las colisiones de iones pesados", published in the Memorias of the Congreso Nacional de la Sociedad Mexicana de Física, Oct. 17-21, 2005, Guadalajara, Jal, México, abstract 1SB6, p. 39, <u>http://www.smf.mx/CNF-2005/Memorias/CNF/memorias.pdf</u>.
- Armando Barrañón, J.A. López, C.O. Dorso. "Ajuste chi-cuadrado de los coeficientes isobaricos", Congreso Nacional de la Sociedad Matemática Mexicana, IPN-Zacatenco, Octubre de 2005.
- Armando Barrañón, J.A. López, C.O. Dorso, "Algoritmo genético para obtener núcleos esféricos", Congreso Nacional de la Sociedad Matemática Mexicana, IPN-Zacatenco, Octubre de 2005.
- A. Barranón, J.A. López. "Efecto del isospin en la temperatura crítica de las colisiones de iones pesados", IX Reunión Nacional de Física y Matemáticas, ESFM-IPN Mayo 2005.
- A. Barranón, J.A. López. "Parámetros isobáricos y modos de emisión en las colisiones de iones pesados", IX Reunión Nacional de Física y Matemáticas, ESFM-IPN Mayo 2005.
- <u>Armando Barrañón</u>, Jorge Alberto López Gallardo, F. De L. Castillo, "Escalamiento Del isospin en la temperatura critica de la materia nuclear", published in the Memorias of the Congreso Nacional de la Sociedad Mexicana de Física, Oct. 17-21, 2005, Guadalajara, Jal, México, abstract 2MG2, p. 67, <u>http://www.smf.mx/CNF-</u> 2005/Memorias/CNF/memorias.pdf.
- <u>Armando Barrañón</u>, J. A. López Gallardo y F. de L. Castillo, "Estudio Teórico del cambio de fase líquido-gas en la materia nuclear", Applied Math Workshop, ESIME-IPN, Sep. 21-23, 2005. <u>http://www.appliedmath.ipn.mx/Calendario.htm</u>.
- <u>A. Barranón</u> y J. A. López, "Efecto del balance de carga en la temperatura crítica de la materia nuclear, Congreso CINDET05, IIE-Cuernavaca Sept. 21- 23, 2005. http://www.ewh.ieee.org/soc/pes/morelos/Actividades2005.html
- <u>Armando Barrañón</u>, Jorge López Gallardo, "Influencia del isospin en la temperatura crítica de la materia crítica nuclear", XX Congreso Nacional de Termodinámica. Sociedad Mexicana de Termodinámica, Tecnológico de Apizaco, Sep. 5-9, 2005. <u>http://www.itapizaco.edu.mx/termodinamica/Programa.pdf</u>.
- Armando Barrañón and Jorge López, "Isoscaling parameters for light projectile and heavy target central HIC", published in The Bulletin of The American Physical Society, Abstract BA.00004, April 2005, <u>http://meetings.aps.org/Meeting/TSS05/Event/31036</u>.
- Armando Barrañón and Jorge López, "Isoscaling in central HIC", XXVIII Symposium on Nuclear Physics Cocoyoc 2005, Jan. 4-7 2005, http://www.smf.mx/~dfn/SNP2005/posters/AB.htm.
- <u>Armando Barrañón</u>, Jorge Alberto López Gallardo, F. De L. Castillo, "Isospin and Limit Temperatures in Heavy Ion Collisions" published in The Bulletin of The American Physical Society, October 2005, abstract E1.6, p.45 <u>http://tsaps.phys.uh.edu/index_files/Program_Complete.pdf</u>.
- 21. Milijana Suskavcevic, J. Morales, and Jorge López, "Modern Physics Simulations Revisited", published in The Bulletin of The American Physical Society, October 2005, Abstract C3.4, p.37, http://tsaps.phys.uh.edu/index_files/Program_Complete.pdf.
- 22. <u>Alán Dávila</u>, Christian Escudero, Jorge López and Claudio Dorso, "Geometrical aspects of isoscaling", published in The Bulletin of The American Physical Society, October 2005, abstract D3.1, p.41 <u>http://tsaps.phys.uh.edu/index_files/Program_Complete.pdf</u>.
- Claudio Dorso, <u>Christian Escudero</u> and Jorge López, "Dynamical aspects of isoscaling", published in The Bulletin of The American Physical Society, October 2005, abstract D3.2, p.41 <u>http://tsaps.phys.uh.edu/index_files/Program_Complete.pdf</u>.
- 24. Jorge A. López, C. Escudero and C. O. Dorso, "A Classical Mechanics Study of Isoscaling", Abstract NTD-4, p. 37, Book of Abstracts, VI Latin American Symposium on Nuclear Physics and Applications, Iguazú, Argentina, Oct. 3-7, 2005. <u>http://www.tandar.cnea.gov.ar/misc/SLAFNAP6.php?action=show_section§ion=BookOfAbstra</u> cts.
- <u>Claudio O. Dorso</u> and Jorge A. López, "Isoscaling Geometry and Correlations ", Abstract NTD-6, p. 37, Book of Abstracts, VI Latin American Symposium on Nuclear Physics and Applications, Iguazú, Argentina, Oct. 3-7, 2005.

http://www.tandar.cnea.gov.ar/misc/SLAFNAP6.php?action=show_section§ion=BookOfAbstra cts.

- 26. A. Davila, C. Escudero, <u>C. O. Dorso</u> and Jorge A. López, "Geometrical aspects of isoscaling ", Abstract P-NTD-2, p. 62, Book of Abstracts, VI Latin American Symposium on Nuclear Physics and Applications, Iguazú, Argentina, Oct. 3-7, 2005. <u>http://www.tandar.cnea.gov.ar/misc/SLAFNAP6.php?action=show_section§ion=BookOfAbstra cts.</u>
- 27. Jorge López, "Evolution of isoscaling", published in The Bulletin of The American Physical Society, April 2005, Abstract R12.00005, <u>http://meetings.aps.org/Meeting/APR05/Event/29881</u>.
- Jorge López, "Mentoring minorities in physics", published in The Bulletin of The American Physical Society, Abstract H2.00001, April 2005, <u>http://meetings.aps.org/Meeting/APR05/Event/29001</u>.

2004

 A.Duarte-Moller, M. L. López, J. A. López, William Durrer, M. A. Ramos, P. Sánchez-Santiago and J. L. Gardea-Torresdey, "<u>EXELFS characterization of Gold nanoparticles</u>, produced by esterified Hop biomass, deposited on Si substrates by the spray pyrolysis technique", in "El Encanto de la Física de Radiaciones", Ed. G. Espinoza, UNAM, 2004. Refereed.

2003

- 30. J. A. López, M. Borunda, and J. Morales, "<u>Alpha-Particle Induced X Ray Emission in the Classroom</u>", in "Applications of Accelerators in Research and Industry", J.L. Duggan and I.L. Morgan, Eds., AIP Conference proceedings 680, ISBN 0-7354-0149-7, 2003, Pp. 865-867, refereed.
- 31. Armando Barrañón, Jorge A. López, C. O. Dorso, y Fr. De Landa Castillo, "<u>Deformaciones y</u> <u>Termalización en las Colisiones de Iones Pesados</u>", in "Proceedings of the XVIII Congreso Nacional de Termodinámica", Celaya, GTO, México, September 12, 2003, Pp. 402-407.

2002

32. A. Barrañón, J. A. López, C. Dorso, Fr.de L. Castillo, "<u>Critical Nucleation in Colossal Magnetoresistance</u>", published in the proceedings of the National Congress of the Sociedad Mexicana de Fisica at Leon (Mexico), Oct. 28- Oct.31, 2002, 13 pages.

2001

- 33. Armando Barrañón, Jorge A. López and C. O. Dorso, "<u>Neck Production in Ni+Ni semi-peripheral collisions</u>", in "Proceedings of the IV Latin American Symposium on Nuclear Physics", J.A. López E. Chavez, M. Moshinsky, and M.E. Borunda, Eds., published by UACJ Press, ISBN 968-7845-36-8, September, 2001, Pp. 89-94.
- 34. C. Kubo Della-Piana, S. Blake, Jorge López, and Hurley, Sandra, "<u>Uncle Sam Wants You: Looking for a Few Good Teachers</u>", Paper presented at the Annual Meeting of the American Association of Colleges for Teacher Education (53rd, Dallas, TX, March 1-4, 2001). Report available from the Educational Resources Information Center: ERIC Document Reproduction Service No. ED 451173 in ERIC Issue RIEAUG2001; CLEARINGHOUSE NO: SP039851.

1999

35. A. Barrañon and J. A. López, "<u>Parameter Dependence of Schroedinger Equation Energy Surfaces</u>", published in the Proceedings of the XXXI Congreso Nacional de la Sociedad Matematica Mexicana. Aportaciones Matematicas, Serie Comunicaciones **25**, 191-197, 1999.

1997

36. J. A. Lopez, "<u>Potentials for the Hadronic Gas</u>", Second Latin-American Workshop on Nuclear Physics, Ed. L. Sajo Bohus, Universidad Simon Bolivar, Caracas, Venezuela. Sept. 1997.

1995

 J. A. Lopez, "<u>Transition State Treatment of Nuclear Fragmentation</u>", First Latin-American Workshop on Nuclear Physics, Ed. L. Sajo Bohus, Universidad Simon Bolivar, Caracas, Venezuela, Sept. 1995.

1993

38. J.A. Lopez, "Break<u>up of Small Nuclear Projectiles</u>", in "Nuclear Physics", Proc. of the XV Workshop, Buenos Aires, Argentina, 1993, World Scientific, Teaneck, New Jersey.

39. J.A. López, "<u>Transition State Treatment of Nuclear Fragmentation</u>", Proc. of the XIV Symposium on Nuclear Physics, edited by M.E. Brandan, pp. 133-138, 1991, World Scientific, Teaneck, New Jersey.

1990

40. J.A. López, "<u>Sequential Binary Decay and Multifragmentation in Light Particle Breakup</u>", in "Workshop on Nuclear Dynamics VI", Proc. of the 6th Winter Workshop on Nuclear Dynamics, edited by J. Randrup, pp. 25-28, 1990, Lawrence Berkeley Laboratory report LBL-28709.

1989

41. J.A. López and J. Randrup, "<u>From Fission to Multifragmentation</u>", in "Nuclear Dynamics and Nuclear Disassembly", Proc. of the Symposium, edited by J.B. Natowitz, pp. 400-411, 1989, World Scientific, Teaneck, New Jersey.

1985

42. J.A. López and P.J. Siemens, "<u>The Quark Gluon Plasma</u>", in "Notas de Fisica", Proc. of the VII Oaxtepec Symposium on Nuclear Physics, edited by A. Dacal, Vol. 8, 1985, IFUNAM, Mexico.

1984

43. J.A. López and P.J. Siemens, "<u>Nuclear Fragmentation</u>", in "Notas de Fisica", Proc. of the VI Oaxtepec Symposium on Nuclear Physics, edited by M.E. Ortiz and J. Lomnitz, Vol. 7, pp. 12-13, 1984, IFUNAM, Mexico.

Abstracts of papers at symposia and meetings (presenter is underlined) 2003

- 1. <u>Jorge A. López</u>, A. Barrañón and Jesus Escamilla Roa, "Entropy and the Nuclear Caloric Curve", program of the V Latin American Symposium on Nuclear Physics, Santos, Brazil, Sept. 1-5, 2003. <u>http://www.sbf1.if.usp.br/eventos/rtfnb/xxvi/sys/resumos/R0249-1.pdf</u>.
- 2. <u>M. Ramos</u> and Jorge A. López, "Characterization of thin films by XPS, Auger and SIMS techniques ", program of the meeting of the Texas Section of the American Physical Society, Texas Tech University, Lubbock, Texas. October, 2003.
- <u>A. Duarte-Moller</u>, C. González-Valenzuela, J. Hernández, M. A. Ramos, J. A. López, W. G. Durrer and O. Chimal, "Parallel Eels Characterization Of Tic And Tin Thin Films", program of the First International Meeting of Applied Physics, Badajoz, Spain, October 13-18, 2003. <u>http://www.formatex.org/aphys2003/acceptedabstracts.htm</u>.
- Jorge A. Lopez, Armando Barranon, and Claudio O. Dorso, "Size dependence of nuclear caloric curve", program of the 10th International Conference on Nuclear Reaction Mechanisims, Varenna, Italy, June 9-13, 2003, <u>http://www.mi.infn.it/~gadioli/abstracts/lopez.doc</u>.
- 5. <u>Jesús Escamilla</u> and Jorge A. López, "A Model for Nuclear Matter", program of the V Latin American Symposium on Nuclear Physics, Santos, Brazil, Sept. 1-5, 2003.
- 6. <u>A. Barrañón</u>, J.A. López and C. Dorso, "Nuclear Matter and Fisher Law", program of the XII International Materials Research Congress, Cancun, Mexico, Ago 17-21, 2003.
- 7. <u>Armando Barrañón</u>, Jorge A. Lopez, Claudio O. Dorso, "<u>Relaxation Times</u>, <u>Residual Sizes and Limit</u> <u>Temperatures for Ni+Ni HIC</u>", program of the APS March 06, 2003 meeting, Austin, TX.

- <u>A. Barrañón</u>, Jorge A. López and C. O. Dorso, "<u>Residual size dependency on caloric curves</u>", program of the meeting of the Southwest Theoretical Chemistry Conference, University of Houston, Houston, Texas. Nov. 14-16, 2002.
- <u>A. Barrañón</u>, Jorge A. López and C. O. Dorso, "Participant Region Limit Temperature dependency on Residual Size for Ni+Ni HIC", p. 12, program of the meeting of the Texas Section of the American Physical Society, University of Texas at Brownsville, Brownsville, Texas. Oct. 10-12, 2002.
- M. Ramos, C. Escudero, A. Avalos, J. Escamilla and Jorge A. López, "Critical Phenomena in Nuclear Reactions", p. 14, program of the meeting of the Texas Section of the American Physical Society, University of Texas at Brownsville, Brownsville, Texas. Oct. 10-12, 2002.
- <u>A. Barrañón</u>, J. A. López, and C. O. Dorso, "Fragmentación Nuclear Crítica y el Modelo de la Gota Líquida de Fisher ", programa del IX Congreso de la Division de Dínamica de Fluidos, Soc. Mex. Fis. Inst. Mex. Petróleo, Mexico City, Mexico, 11/17-19, 2002.
- 12. <u>A. Barrañón Cedillo</u>, J. A. López, and C. O. Dorso, "Critical States and a Rise-Plateau Caloric Curve for Ni+Ag Central HIC", Bulletin of the American Physical Society, **47**, No. 2, 72, 2002.

- M. Ramos, C. Escudero, A. Avalos and Jorge A. López, "Critical Phenomena in Nuclear Reactions", p. 58, program of the UTEP Student research Expo 2002, University of Texas at El Paso, El Paso, Texas. Apr. 18, 2002.
- 14. <u>Y. Dominguez, Manuela Ortiz</u>, and Jorge A. López, "Modern Physics Simulations", p. 71, program of the UTEP Student research Expo 2002, University of Texas at El Paso, El Paso, Texas. Apr. 18, 2002.
- <u>Armando Barrañón</u>, Jorge A. López and C. O. Dorso, "Critical states and a rise plateau caloric curve for Ni+Ag central HIC ", Bulletin of the American Physical Society 47, 2002, p. 72.

- <u>Armando Barranon</u>, Jorge A. Lopez, C.O. Dorso, "Caloric curves and heavy ion collision stages", program of the APS-Four Corners Section, Las cruces, New Mexico, Nov. 2-3, 2001. <u>http://hero.nmsu.edu/~4cs/stracts/</u>.
- Jorge A. López, "La nueva termodinámica: La termodinámica de sistemas finitos y tiempos cortos", in "Programas y Resúmenes del XLIV Congreso Nacional de Física", Sociedad Mexicana de Física, October, 15-19, 2001, p. XLV.
- <u>Armando Barrañón</u>, Jorge A. López and C. O. Dorso, "Curvas calorificas y criticidad en HIC", in "Programas y Resúmenes del XLIV Congreso Nacional de Física", Sociedad Mexicana de Física, October, 15-19, 2001, p. 47.
- **19.** <u>Armando Barrañón</u>, Jorge A. López and C. O. Dorso, "Ondas de choque y formación de fragmentos en HIC", in "Programas y Resúmenes del XLIV Congreso Nacional de Física", Sociedad Mexicana de Física, October, 15-19, 2001, p. 47.
- 20. <u>Armando Barrañón</u>, Jorge A. López and C. O. Dorso, "Escalamiento térmico y emisión estocástica en HIC", in "Programas y Resúmenes del XLIV Congreso Nacional de Física", Sociedad Mexicana de Física, October, 15-19, 2001, p. 48.
- <u>Rafael Cárdenas</u>, A. Chernomoretz, C. O. Dorso, and Jorge A. López, "Criticality in nuclear fragmentation", in "Proceedings of the IV Latin American Symposium on Nuclear Physics", J.A. López E. Chavez, M. Moshinsky, and M.E. Borunda, Eds., published by UACJ Press, ISBN 968-7845-36-8, September, 2001, p. 12.
- 22. <u>Armando Barrañón</u>, Jorge A. López and C. O. Dorso, "<u>Neck Production in Ni+Ni semi-peripheral collisions</u>", in "Proceedings of the IV Latin American Symposium on Nuclear Physics", J.A. López E. Chavez, M. Moshinsky, and M.E. Borunda, Eds., published by UACJ Press, ISBN 968-7845-36-8, September, 2001, Pp. 89-94.
- 23. <u>C. O. Dorso</u>, A. Chernomoretz and Jorge A. López, "Equilibrium and non equilibrium fragmentation", in "Proceedings of the IV Latin American Symposium on Nuclear Physics", J.A. López E. Chavez, M. Moshinsky, and M.E. Borunda, Eds., published by UACJ Press, ISBN 968-7845-36-8, 9/2001, p. 17.
- 24. <u>Rafael Cárdenas</u>, A. Barrañón, C. O. Dorso, and Jorge A. López, "A study of τ, the critical exponent of nuclear fragmentation", program of the meeting of the Texas Section of the American Physical Society, Texas Christian U., Forth Worth, Texas. Oct. 28-29, 2001.
- 25. <u>Sally Blake</u>, Jorge López, Arturo Pacheco, Steve Sanchez, Connie Kubo Della-Piana, and Erandi Perez, "<u>Next Steps: Piloting a Field-Based Set of Linked Courses in Science Education Connecting with K-12</u>", program of the CEPT 2001 annual meeting, Washington, D.C., April 1-4, 2001.
- 26. <u>Sally Blake</u> and Jorge López, "<u>Students perceptions of cross-disciplinary team teaching on site at a PDS</u>", program of the 2001 annual meeting of The American Association of Colleges for Teacher Education, Dallas, Texas, March 4, 2001.
- 27. <u>C. Kubo Della Pianna</u>, Arturo Pacheco, Jorge López, Tom Brady and Sally Blake, "<u>Keeping the whole village together</u>", program of the 2001 annual meeting of The American Association of Colleges for Teacher Education, Dallas, Texas, March 3, 2001.

- <u>A. Barrañón</u>, J.A. López, C. Dorso and A. Chernomoretz, "Critical Behavior and Liquid-Gas Phase Transition in Ni+Ni HIC", program of the International Materials Research Congress, Cancun'2000, Ago 27-31, 2000, <u>http://cuca.mda.cinvestav.mx/cancun/abs_barra3.html</u>.
- 29. <u>A. Barrañón</u>, J.A. López, C. Dorso and A. Chernomoretz, "Excitation Temperature and Projectile Energy Dependence of Liquid-Gas Phase Transition in He+Ag HIC", program of the International Materials Research Congress, Cancun'2000, Ago 27-31, 2000, http://cuca.mda.cinvestav.mx/cancun/abs_barra2.html.
- **30.** <u>Armando Barranon-Cedillo</u>, Jorge A. López, R. Cardenas, Claudio Dorso, Ariel, Ni+Ni IMF Invariant rapidity cross sections analysis, program of the APS Boston meeting, November 1, 2000.

- **31.** <u>Armando Barranon-Cedillo</u>, Jorge A. López, R. Cardenas, Claudio Dorso, Ariel Chernomoretz, Moment and Parallel velocity fragment distribution reconstructions in a Participant-Spectator scenario, program of the APS Boston meeting, October 29, 2000.
- **32.** <u>Jorge A. López</u>, Claudio Dorso, and Ariel Chernomoretz, "Caloric Curve in Collisions", program of the APS meeting, April, 2000. <u>http://www.eps.org/aps/meet/APR00/baps/abs/S5430.html#SP14.011</u>.
- **33.** <u>Armando Barranon-Cedillo</u>, Jorge A. López, Claudio Dorso, Ariel Chernomoretz, "Evidence of a Phase Transition for He+Ag IMF Collision", program of the APS meeting, April, 2000. http://www.eps.org/aps/meet/APR00/baps/abs/S5430.html#SP14.007.
- **34.** Jorge A. López and <u>Ricardo Correa</u>, "Modern physics simulations", program of the meeting of the Texas Section of the American Physical Society, Rice U., Houston, Texas. Oct. 28-29, 2000.
- **35.** <u>Martha Navarro</u>, A. Chernomoretz, C. O. Dorso, and Jorge A. López, "Semi classical model to study nuclear fragmentation", program of the meeting of the Texas Section of the American Physical Society, Rice U., Houston, Texas. Oct. 28-29, 2000.
- **36.** <u>Jorge A. López</u>, A. Chernomoretz and C. O. Dorso, "The caloric curve in collisions", program of the meeting of the Texas Section of the American Physical Society, Rice U., Houston, Texas. Oct. 28-29, 2000.
- J. A. López, A. Barrañón Cedillo, C.O. Dorso, "Searching for criticality in nuclear fragmentation", Conference Handbook of XXV Symposium on Nuclear Physics, Ed. A. Menchaca Rocha. p. 10, January 3-6, 2000.
- **38.** <u>A. Barrañón Cedillo</u>, J. A. López, R. Cardenas, C. Dorso, A. Chernomoretz, "Moment and Parallel velocity fragment distribution reconstructions in a Participant-Spectator scenario", Program of the 2000 Fall Meeting of The Texas Section of the American Physical Society, p., 2000.
- <u>A. Barrañón Cedillo</u>, J. A. López, and M. Navarro, "Testing Campi statistics in HIC", Bulletin of the American Physical Society, 45, 117, 2000.
- **40.** <u>A. Barrañón Cedillo</u>, J. A. López, C. O. Dorso, and A. Chernomóretz, "Evidence of a phase transition for He+Ag IMF collisions", Bulletin of the American Physical Society, **45**, 116, 2000.
- **41.** J. A. López, C. O. Dorso, and A. Chernomóretz, "The caloric curve in collisions", Bulletin of the American Physical Society, **45**, 117, 2000.
- <u>A. Barrañón Cedillo</u>, J. A. López, M. Navarro, and C. O. Dorso, "Asymptotic Behavior of the He-Ag IMF Collision", Conference Handbook of XXIII Symposium on Nuclear Physics, Ed. R. Bijker, January 10-13, 2000.

- **43.** A. Chernomoretz, C. O. Dorso, and J. A. López, "The Caloric Curve in Nuclear Fragmentation", Conference Handbook of III Latin American Workshop on Nuclear Physics, Ed. F. Cristancho, Sep., 1999.
- 44. <u>A. Barrañon</u> and J. A. López, "<u>Parameter Dependence of Schroedinger Equation Energy</u> <u>Surfaces</u>", published in the Proceedings of the XXXI Congreso Nacional de la Sociedad Matematica Mexicana. Aportaciones Matematicas, Serie Comunicaciones 25, 191-197, 1999.
- 45. A. Barrañón, A. Chernomoretz, C. O. Dorso, J. A. López, J. Morales, "A Semi-Classical Model to Study Nuclear Fragmentation", Conference Handbook of XXII Symposium on Nuclear Physics, Ed. R. Bijker, Jan., 1999.

- **46.** J.A. Lopez, X. Wang, and C.O. Dorso, "Fragmentation Landscapes", Bulletin of the Meeting of the American Physical Society, Columbus, Ohio, April 18-21, 1998.
- **47.** J. Morales, J. A. Lopez, and J. Gardea-Torresdey, "Using AIXE to Search for Heavy Metals in Vegetation", Bulletin of the Meeting of the American Physical Society, Columbus, Ohio, April 18-21, 1998.
- **48.** C.O. Dorso, <u>J.A. Lopez</u>, and J. Morales, "Excitation Energy in 3He on 107Ag at 4.8 GeV/A", Bulletin of the Meeting of the American Physical Society, Columbus, Ohio, April 18-21, 1998.
- **49.** <u>J.A. Lopez</u>, "Breaking Nuclei", Bulletin of the Meeting of the American Physical Society, Columbus, Ohio, April 18-21, 1998.
- **50.** <u>M. Suskavcevic</u>, J. López and C. Velasco, "Modern Physics Simulations", Program of the 1998 Meeting of The Texas Section of the American Physical Society, p. 17, 1998.
- **51.** <u>M. Castro-Colín</u>, J. López and R. Osegueda, "Identification of Laser-Induced Lamb Waves in Al Plates", Program of the 1998 Meeting of the Texas Section of The American Physical Society, p. 15, 1998.

- **52.** C.O. Dorso, <u>J.A. Lopez</u>, X. Wang, and M. Castro Colin, "Selected Decays in Fragmentation", Conference Handbook of XXI Symposium on Nuclear Physics, Ed. J. Besprosvany, held in Oaxtepec, Mexico, Jan. 5-8, 1998.
- **53.** <u>J.A. Lopez</u>, and J. Morales, "Computer Simulations of 3He on 107Ag at 4.8 GeV/A", Conference Handbook of XXI Symposium on Nuclear Physics, Ed. J. Besprosvany, held in Oaxtepec, Mexico, Jan. 5-8, 1998.
- 1997
- 54. <u>R. Coronado</u> and J.A. Lopez, "Search of Gravity Waves", Bulletin of the NCUR-97 Conference, to be held in Austin, Texas, April 24-26, 1997.
- **55.** J.A. Lopez and <u>J. Morales</u>, "Hadron Gas", Bulletin of the NCUR-97 Conference, Austin, Texas, April 24-26, 1997.
- **56.** J.A. Lopez and <u>R. Medellin</u>, "Criticality in Nuclear Fragmentation", Bulletin of the NCUR-97 Conference, Austin, Texas, April 24-26, 1997.
- 57. <u>A. Aranda</u>, J.A. Lopez and Z. Wu, "Preferred Decays in Nuclear Fragmentation", Bulletin of the Meeting of the Canadian-American-Mexican Physics Societies, Washington, D.C., April 18-21, 1997.
- **58.** <u>J.A. Lopez</u> "Mapping the Phase Diagram of Nuclear Matter", Bulletin of the Meeting of the Canadian-American-Mexican Physics Societies, Washington, D.C., April 18-21, 1997.
- **59.** J.A. Lopez, A. Aranda, C.O. Dorso, V. Furci, "Mapping the Phase Diagram of Nuclear Matter", Bulletin of the Meet. of the Canadian-American-Mexican Physics Societies, Washington, D.C., April 18-21, 1997.
- **60.** J. A. Lopez, "Potentials for the Hadron Gas", Second Latin-American Workshop on Nuclear and Heavy Ion Physics, Eds. L. Sajo Bohus, Jacinto Liendo, and Rafael Martin, Universidad Simon Bolivar, Caracas, Venezuela, Sept. 1997.
- M. Castro Colin, J.A. López, and R. Osegueda, "Characterization of Laser-Based Ultrasonic Modes Induced in an Aluminum Plate", Bull. of the Texas Section of the American Physical Society, Oct. 1997.
- 1996
- **62.** <u>R. Coronado</u> and J.A. Lopez, "Signal Analysis Techniques for Gravity Wave Detection in Spacecraft Tracking Data", Bull. Texas Section of the Am. Phys. Soc., Mar. 1996.
- **63.** <u>R. Armendariz</u> and J.A. Lopez, "Searching Spacecraft Tracking Data for Gravity Wave Signatures", Bull. Texas Section of the Am. Phys. Soc., March 1996.
- **64.** <u>T. Robinson</u> and J.A. Lopez, "Features of the Collision of Heavy Ions at Low Energies", Bull. Texas Section of the Am. Phys. Soc., March 1996.
- **65.** <u>A. Aranda</u> and J.A. Lopez, "Phase Space Correlations in Nuclear Fragmentation", Bulletin of the Texas Section of the American Physical Society, March 1996.
- **66.** J.D. Anderson, R. Armendariz, <u>R. Coronado</u>, J.A. Lopez and J. Morales, "Signal Analysis Techniques for Gravity Wave Detection and Verification in Spacecraft Tracking Data", Bulletin of the Texas Section of the American Physical Society, Oct. 1996.
- 67. J. A. Lopez and C. Velasco, "Computer Simulations for Modern Physics", Bulletin of the Texas Section of the American Physical Society, Oct. 1996.
- **68.** A. Aranda, J.A. Lopez and Z. Wu, "Preferred Decays in Nuclear Fragmentation", Bulletin of the Texas Section of the American Physical Society, Oct. 1996.
- **69.** J.A. Lopez and <u>R. Medellin</u>, "Boiling Drops of Argon", Bulletin of the Texas Section of the American Physical Society, Oct. 1996.
- J.D. Anderson, R. Armendariz, R. Coronado, J.A. Lopez and <u>J. Morales</u>, "The Search for Gravity Waves in Spacecraft Tracking Data", Bulletin of the Texas Section of the American Physical Society, Oct. 1996.
 1995
- 71. <u>R. Coronado</u> and J.A. Lopez, "Gravity Wave Signatures in Satellite Tracking Data", in Abstracts of 3rd Annual NSF AMP Research Conference. July 30-Aug. 1, 1995, UC Irvine, California.
- 72. <u>R. Coronado</u>, J.A. Lopez, and J.D. Anderson, "Missing Data in Spacecraft Signals, Detection of a Gravity Wave?", Bull. Texas Section of the Am. Phys. Soc., Oct. 1995.
- **73.** R. Coronado and <u>J.A. Lopez</u>, and J.D. Anderson, "Gravitational Wave Detection and Verification in Spacecraft Tracking Data", Bull. Texas Section of the Am. Phys. Soc., Oct. 1995.
- 74. <u>A. Aranda</u>, J.A. Lopez, C.O. Dorso, and V. Furci, "A Study of Fluctuations in Nuclear Fragmentation", Bulletin of the Texas Section of the American Physical Society, Oct. 1995.
- **75.** J. Morales, J.A. Lopez and J.D. Anderson, "Gravitational Wave Detection in Spacecraft Tracking Data", Bulletin of the Texas Section of the American Physical Society, Oct. 1995.
- 1994

- **76.** <u>A. Aranda</u>, C. Dorso, and J.A. Lopez, "The Onset of Nuclear Fragmentation", Abstract published in the Bulletin of the American Physical Society, Mar. 11, 1994.
- 77. <u>G. Rivas</u>, J. Anderson, and J.A. Lopez, "Search of Gravity Waves by Autocorrelation Techniques", Bulletin of the Texas Section of the American Physical Society, Mar. 11, 1994.
- **78.** M. Borunda, and <u>J.A. Lopez</u>, "On the Formation of Hollow Configurations", Abstract published in the Bulletin of the American Physical Society, Mar. 11, 1994.

- **79.** J.A. Lopez, "Nuclear Fragmentation", Abstract published in the Bulletin of the American Physical Society, **38**, p. 955, 1993.
- 1992
- **80.** J.A. López, "<u>Breakup of Excited 16-0 Into Four at Intermediate Energies</u>", Bulletin of the American Physical Society, **37**, p. 1274, 1992.

- **81.** J.A. López and J. Randrup, "<u>Transition State Treatment of Nuclear Fragmentation</u>", Bulletin of the American Physical Society, **35**, 1990.
- 82. B.A. Harmon, J. Pouliot, J.A. López, J. Suro, R. Knop, Y. Chan, D.E.DiGregorio, and R.G. Stokstad, "<u>Kinematical Signatures of the Projectile Breakup Process at 32.5 MeV/Nucleon</u>", Bulletin of the American Physical Society, 35, 1990.

1985

83. J.A. López and P. Siemens, "Phase Transitions in Nuclear Matter", Bulletin of the American Chemical Society, 1985.

2. PRESENTATIONS

In national and international meetings 2006

1. <u>"Nuclear Isoscaling "</u>, invited talk, delivered at the II Symposium of the Division of Radiations of The Mexican Physics Society, Chihuahua, Feb 26-Mar 2, 2006.

2005

- "A Classical Mechanics Study of Isoscaling", invited talk, delivered at the VI Latin American Symposium on Nuclear Physics, Iguazú, Argentina, Oct. 3-7, 2005.<u>http://www.tandar.cnea.gov.ar/misc/SLAFNAP6.php?action=show_section§ion=M</u> <u>ain</u>.
- Mentoring minorities in physics, invited talk delivered at the 2005 APS April Meeting, Session H2: Mentoring in Physics education, Sunday, April 17, 2005, Marriott Tampa Waterside – Grand Salon F, <u>http://meetings.aps.org/Meeting/APR05/Event/29001</u>.
- Evolution of isoscaling, contributed talk delivered at the 2005 APS April Meeting, Session R12: Nuclear Reactions, Monday, April 18, 2005, Marriott Tampa Waterside - Room 11, <u>http://meetings.aps.org/Meeting/APR05/Event/29881</u>.
- Reacciones de Iones Pesados, series of lectures presented at the IV Escuela Mexicana de Física Nuclear held at The Universidad Nacional Autónoma de México, on June 27 - July 8, 2005, <u>http://www.teorica.física.unam.mx/escuela-2005/</u>

2004

6. <u>Entropy and the caloric curve</u>, 2004 Gordon Research Conference on Nuclear Chemistry: Nuclear Reactions, Flavors across Energies, June 13 to 18, 2004 at Colby-Sawyer College, New London, New Hampshire.

- 7. <u>Alpha Particle Induced X-Ray Emission in the Classroom</u>, invited talk delivered at the "I Workshop on Radiation Physics in Industry and Education", held in UNAM, Mexico City, Dec. 4-5, 2003.
- 2. <u>Analytical facilities at The University of Texas at El Paso</u>, invited talk delivered at the "I International Symposium on Radiation Physics", held in ININ/UNAM Mexico City, Dec. 1-3, 2003.
- 3. "<u>Entropy and Size in the Nuclear Caloric Curve</u>", 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/rtfnb/xxvi/.

¹⁹⁹³

 <u>Alpha Particle Induced X-Ray Emission in the Classroom</u>, 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.

- 5. "<u>La nueva termodinámica</u>", plenary talk delivered at the XLIV National Meeting of the Mexican Society of Physics, Morelia, Michoacan, Mexico, Oct. 2001.
- 6. "<u>Development of pre-service teachers constructive pedagogical thinking</u>", plenary talk presented by Arturo Pacheco, Mourat Tchoshanov, Sally Blake and Jorge López at the International Conference on Intellectual Potential of a Society and Development of Students, Kazan, Russia, May 16-18, 2001.
- 7. "<u>Teaching science using a field-based prospective</u>", invited talk presented by Jorge López at the Tatar State Institute for Professional Development of Educator (Leon Toltoi's House) in the International Conference on Intellectual Potential of a Society and Development of Students, Kazan, Russia, May 16-18, 2001.
- 8. "Searching for criticality in nuclear fragmentation", invited talk, delivered at the XXIV Symposium on Nuclear Physics, Taxco, Mexico, Jan. 3-6, 2001.

2000

9. "<u>The caloric curve in collision</u>", contributed talk, National Meeting of the American Physical Society, Long Beach, California, April 29 - May 2, 2000.

1999

- **10.** "<u>Boiling Nuclei</u>", invited Talk to be delivered at the meeting of the National Society of Hispanic Physicists, Portland, Oregon Oct. 1999.
- 11. "<u>Preliminary Results of Latino</u>", invited Talk to be delivered at the Third Latin-American Workshop on Nuclear and Heavy Ion Physics, San Andres, Colombia. Sept. 1999.
- 12. "<u>Transition State Treatment of Nuclear Fragmentation</u>", Invited Talk, Third Latin-American Workshop on Nuclear Physics, Ed. L. Sajo Bohus, San Andres, Colombia, Sept. 1999.
- **13.** "Latino: a semi-classical model to study heavy ion reactions", XXII Symposium on Nuclear Physics, Oaxtepec, Mexico, January 4-9, 1999.

1998

- 14. "Breaking Nuclei", invited talk, Meeting of the American Physical Society, Columbus, Ohio, during April 18-21, 1998.
- **15.** "<u>Fragmentation Landscapes</u>", contributed talk, Meeting of the American Physical Society, Columbus, Ohio during April 18-21, 1998.

1997

- 16. "<u>Mapping the Nuclear Phase Diagram</u>", invited talk, Symposium on the Nuclear Equation of State in the Meeting of the Canadian-American-Mexican Physics Societies, Washington, D.C. April 1997.
- 17. "<u>Phase Diagram of Nuclear Matter</u>", invited Talk, Second Latin-American Workshop on Nuclear and Heavy Ion Physics, Caracas, Venezuela. Sept. 1997.
- 18. "Potentials for the Hadron Gas", invited Talk, Second Latin-American Workshop on Nuclear and Heavy Ion Physics, Caracas, Venezuela. Sept. 1997.
- **19.** "<u>Busqueda de Ondas Gravitacionales</u>", invited talk, Semana de Matemáticas y Astronomía, Univ. Autónoma de Ciudad Juárez, 4/7/97.

1996

20. "Search for Gravity Waves using the Pioneer 1993 Tracking Data", invited talk, Pioneer Users Meeting, University of Chicago, Chicago, Il, July 24-25, 1996.

1995

- 21. "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.
- 22. "Fragmentation Volume", XVIII Symposium on Nuclear Physics, Oaxtepec, Mexico, January 4-7, 1995. 1994
- **23.** "<u>Nuclear Fragmentation</u>", invited talk, Meeting of the Association of Black Physics Students, 2/94, Atlanta, GA.
- 24. "<u>Hispanics in Physics</u>", 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.

²⁰⁰¹

- **25.** *<u>Nuclear Fragmentation</u>", invited talk, Joint Meeting of the American Physical Society and the American Association of Physics Teachers, 4/1993, Wash., DC.
- 26. "<u>Physics Circus</u>", presented at the 1993 SACNAS Conference, January 1993, Albuquerque, New Mexico.

- 27. "Breakup of Excited 16-0 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.
- **28.** "B<u>reakup of Small Projectiles</u>", invited talk, Argentinean Workshop on Nuclear Physics, September 14-18, 1992, Buenos Aires, Argentina.
- **29.** "<u>Nuclear Spinodal Decomposition</u>", invited talk, XV Symposium on Nuclear Physics, January 1992, Oaxtepec, Mexico.

- **30.** "<u>Cumulos Galacticos y la Materia Faltante</u>", 4th. Annual Astronomy Week of the "Sociedad Astronomica Juarense", May 28, 1991, Juarez, Mexico.
- **31.** "<u>Transition State Treatment of Nuclear Fragmentation</u>", invited talk, XIV Symposium on Nuclear Physics, January 7-10, 1991, Cuernavaca, Mexico.

1990

32. "<u>Sequential Breakup of Small Nuclear Projectiles</u>", invited talk, 6th Winter Meeting Workshop on Nuclear Dynamics, February 17-24, 1990, Jackson, Wyoming.

1989

33. "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.

1988

34. "<u>Fission Versus Multifragmentation</u>", short contribution, Gordon Conference on Nuclear Structure, July 1988, Tilton, New Hampshire.

1987

35. "<u>A Complete (?) Model for Heavy Ion Reactions</u>", invited talk, Meeting of the CHIC Collaboration, April 1987, Bergen, Norway.

1986

36. "<u>Pions and Fragmentation</u>", invited talk, Workshop on Nuclear Physics at Intermediate and High Energies, May 1986, Budapest, Hungary.

1985

- **37.** "<u>Phase Transitions in Nuclear Matter</u>", invited talk, 189th Meeting of the American Chemical Society, May 1985, Miami, Florida.
- **38.** "The Quark Gluon Plasma", invited talk, VII Symposium on Nuclear Physics, January 1985, Oaxtepec, Mexico.

1984

- **39.** "<u>Screening in the QCD Plasma</u>", short contribution, Gordon Conference on Nuclear Structure, August, 1984, Tilton, New Hampshire.
- **40.** "<u>Nuclear Fragmentation</u>", invited talk, VI Symposium on Nuclear Physics, January, 1984, Oaxtepec, Mexico.

In Regional Meetings

2003

41. "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, Chihuahua, Mexico, april 12, 2003.

- **42.** "<u>Nuclear Reactions</u>", 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.
- **43.** <u>Workshop "Computer Simulated Experiments for Modern Physics</u>", presented at the Conference for the Advancement of Science teaching: CAST 2002, UTEP, Saturday, 9/11/2002.
- **44.** <u>Workshop "Computer Simulated Experiments for Modern Physics</u>", presented at the Conference for the Advancement of Science teaching: CAST 2002, UTEP, Saturday, 9/11/2.

¹⁹⁹²

45. "<u>Nuclear liquid-gas transformation</u>", plenary talk presented at the meeting of the Texas Section of the American Physical Society, Rice University, Houston, Texas. Oct. 28-29, 2000.

46. "<u>The caloric curve in collision</u>", contributed talk, presented at the meeting of the Texas Section of the American Physical Society, Rice University, Houston, Texas. Oct. 28-29, 2000.

1999

- **47.** "<u>Computer Simulations for Modern Physics</u>", presented at the Neat Networks '99 conference, held at the University of Texas at El Paso, El Paso, Texas, Apr. 29 to May 1, 1999.
- **48.** "<u>Nuclear Caloric Curve</u>", contributed talk, presented at the meeting of the Texas Section of the American Physical Society, in Austin, Texas. Oct. 28, 1999.

1997

49. "<u>Separable Potentials for the Hadronic Phase</u>", contributed talk presented at the meeting of the Texas Section of the American Physical Society, in Denton, Texas. Oct. 10, 1997.

1996

- **50.** "<u>Computer Simulations for Modern Physics</u>", contributed talk presented at the meeting of the Texas Section of the American Physical Society, in Arlington, Texas. Oct. 11, 1996.
- **51.** "<u>Preferred Decays in Nuclear Fragmentation</u>", contributed talk presented at the meeting of the Texas Section of the American Physical Society, in Arlington, Texas. Oct. 11, 1996.

Seminars

2006

- **52.** "<u>Física Nuclear</u>", delivered at the "Semana de Ingeniería", Universidad Autónoma de Ciudad Juárez, 9/19/2006.
- **53.** "Nuclear Isoscaling", Universidad Autónoma de Colima, Colima, México, 5/3/2006.

2005

54. "Physics at UTEP", Universidad Autónoma de Baja California, Ensenada, Sonora, Mexico, 21/Nov/2005.

55. "Los Errores de Einstein", Universidad Autonoma de Colima, Colima, Mexico, 3/May/2005. **2004**

- 56. "Physics at UTEP", Universidad Autónoma de Sonora, Hermosillo, Sonora, Mexico, 23/Nov/2004.
- 57. "A classical MS model of heavy ion reactions ", Arkansas State University, Jonesboro, AR, Oct. 7, 2004.
- 58. "<u>UTEP's Radio telescope</u> ", Universidad Autonoma de Colima, Colima, Mexico, 4/15/2004.

2003

- **59.** "<u>A model for nuclear matter</u>", Universidad Autonoma de Colima, Colima, Mexico, 7/10/2003. **2002**
- **60.** "<u>Termodinámica de Microsistemas</u>", delivered at the "7a Semana de Ingeniería", Universidad Autónoma de Ciudad Juárez, 9/17/2002.
- **61.** "<u>Critical exponents of nuclear fragmentation</u>", Instituto de Fisica, Universidad Nacional Autonoma de Mexico, Mexico City, Mexico, 6/30/2002.
- **62.** "<u>Critical exponents of nuclear fragmentation</u>", Instituto Nacional de Investigaciones Nucleares, Salazar, Mexico 7/2/2002.

2001

63. "<u>Criticality in nuclear fragmentation</u>", Department of Physics, Universidad de La República, Montevideo, Uruguay, Mar. 8, 2001.

2000

- **64.** "<u>Nuclear liquid-gas transformation</u>", Department of Physics, Western Kentucky University, Nov. 21, 2000.
- 65. "Search of gravity waves", Physics Dept., St. Edwards University, Austin, Texas, 10/5/2000.
- 66. "Aztec astronomy", School of Natural Sciences., St. Edwards University, Austin, Texas, 10/5/2000.
- **67.** "<u>Background radiation</u>", delivered at the 6ta Semana de Ingeniería, Univ. Autónoma de Ciudad Juárez, 9/21/2000.
- **68.** "<u>Criticality in nuclear fragmentation</u>", Instituto Nacional de Investigaciones Nucleares, Salazar, Mexico 8/24/2000.
- **69.** "<u>Criticality in nuclear fragmentation</u>", Instituto de Fisica, Universidad Nacional Autonoma de Mexico, Mexico City, Mexico, 8/23/2000.

1999

70. "Physics Education", Physics Dept., Southern Illinois University, Carbondale, Illinois, October 1, 1999.

- 71. "<u>Ultrasound diagnostics for airplane fuselages</u>", Universidad Autonoma de Cd. Juarez, Cd. Juarez, Mexico, September 24, 1999.
- **72.** "Computer simulations", to be delivered at Universidad Autonoma Metropolitana, Mexico City, Mexico, November 23, 1999.
- **73.** "Search of Gravity Waves", Physics Dept., University of Texas at Brownsville, Brownsville, Texas, 4/8/99.
- **74.** "<u>Caloric Curve in Nuclear Fragmentation</u>", Universidad de Buenos Aires, Buenos Aires, Argentina, July, 1999.

- 75. "Gravity Waves", Physics Dept., Texas Tech University, Lubbock, Texas, Nov. 1998.
- **76.** "Simulaciones de Fisica Moderna", <u>presentation</u>, at the 50th Anniversary of Instituto Tecnologico de Durango, May 14, 1998, Durango, Mexico.

1997

- 77. "Nuclear Fragmentation", Physics Dept., Texas Christian University, Forth Worth, Texas, 4/16/97.
- **78.** "<u>Probability Landscapes in Nuclear Fragmentation</u>", TANDAR (Tandem Accelerator), Buenos Aires, Argentina, Jun. 18, 1997.
- **79.** "Phase Changes in Nuclear Fragmentation", Universidad Nacional de Buenos Aires, Bogota, Colombia, Sep. 12, 1997.

1996

- **80.** "<u>Phase Diagram of Nuclear Matter</u>", Physics Dept., University of Maryland, College Park, Maryland, March 10, 1996.
- 81. Seminar to UTEP's Club Zero, Math. Department, April 5, 1996.
- **82.** "<u>Computer simulations</u>", delivered at Universidad Autónoma Metropolitana, Mexico City, Mexico, November 23, 1999.

1995

- **83.** "Exploding stars", Physics Department, Moorehead State University, Moorehead, Minnesota, Mar. 27-29, 1995.
- 84. "<u>Mapping the nuclear phase diagram</u>", Physics Dept., Hampton University, Hampton, Virginia, December 12, 1995.

1994

- 85. "Nuclear fragmentation", Physics Dept., Sam Houston State University, 10/94, Huntsville, TX.
- **86.** "<u>Pre-transition particle emission in nuclear fragmentation</u>", National Superconducting Cyclotron Lab., Michigan State University, East Lansing, Michigan, 6/1994.
- **87.** "<u>TST treatment of nuclear fragmentation</u>", Physics Dept., Vanderbilt University, 2/94, Nashville, Tennessee.
- 88. "TST treatment of nuclear fragmentation", Physics Dept., Tennessee Tech., 2/94, Cookeville, Tennessee.
- **89.** "<u>Nuclear fragmentation</u>", Physics Dept., Sam Houston State University, Huntsville, Texas, October, 1994.

1993

- **90.** "<u>Self-similar expansion of nuclei</u>", Nuclear Theory Group, Lawrence Berkeley Laboratory, 7/1993, Berkeley, California.
- **91.** "<u>Nuclear fragmentation</u>", Departamento de Fisica, Universidad Autonoma de Nuevo Leon, 5/1993, Monterrey, Mexico.
- **92.** "Breakup of small nuclear projectiles", Physics Department, New Mexico State University, 4/1993, Las Cruces, New Mexico.

1992

93. "Breakup of small nuclei", Instituto de Fisica, Universidad Autonoma de Mexico, May 26, 1992, Mexico City, Mexico.

1991

- **94.** "Hot zone formation in heavy ion collisions", Cyclotron Institute, Texas A&M University, November, 1991, College Station, Texas.
- **95.** "Transition state treatment of nuclear fragmentation", Physics Department, New Mexico State University, February 14, 1991, Las Cruces, New Mexico.

1990

96. "Nuclear fragmentation", Physics Department, University of Texas at El Paso, March, 1990, El Paso, Texas.

- **97.** "Nuclear multifragmentation", Physics Department, California State University Hayward, February, 1989, Hayward, California.
- **98.** "Nuclear multifragmentation", Physics Department, California Polytechnic State University, February, 1989, San Luis Obispo, California.
- **99.** "Nuclear multifragmentation", Physics Department, California State University San Jose, March 1989, San Jose, California.
- **100.** "Recent developments in nuclear multifragmentation", Physics Department, Texas A&M University, April 1989, College Station, Texas.

1986

- **101.**"Nuclear Molecular Calculation for Disassembly of Nuclear Matter", Zentralinstitut fur Kernforschung, October, 1986, Rossendorf, Former East Germany.
- **102.** "Quark Gluon Plasma in Linear Response Theory", Physics Department, Technische Universitat Munchen, May 1986, Munich, Germany.

1985

- **103.** "Relativistic Heavy Ion Collisions", Physics Department, Universita degli Studi di Milano, November 1985, Milano, Italy.
- **104.** "The Quark Gluon Plasma", Physics Department, University of Texas at El Paso, February 1985, El Paso, Texas.

3. CHAIRMANSHIP OF SYMPOSIA, ABSTRACTS, REFEREEING OF PAPERS AND PROPOSALS, ETC.

Organizer of meetings

- 1. <u>Organizer of The IV Latin-American Symposium on Nuclear Physics</u>, 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. <u>Organizer, "From K-16 Partnership to the Classroom: Workshop on Planning and Implementing Field-Base Courses in Math and Science</u>", 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.** <u>Organizer</u>, Meeting of the National Society of Hispanic Physicists, Portland, Oregon, October 7-10, 1999.
- 4. <u>Member, Organizing Committee of the Texas Leadership Institute (TexLI) for K-8 Science Education</u>, a program of the Teacher-Scientist Alliance Institute of the American Physical Society, Austin, Texas, Apr. 30 to May 5, 1999.
- Organizer, 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. <u>Organizer, I Semana de Ciencia Y Tecnología</u>, 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. <u>Member of Organizing Committee</u>, "Corporate Scholars Workshop", Committee on Minorities of the American Physical Society, Oct. 1-3, 1993, Hampton, VA.

Chairmanships

2005

 <u>Chair</u>, Session "Nuclear Thermodynamics and Dynamics", VI Latin American Symposium on Nuclear Physics, Iguazú, Argentina, Oct. 6, 2005. <u>http://www.tandar.cnea.gov.ar/misc/SLAFNAP6.php?action=show_section§ion=Main</u>.

2003

2. <u>Chair</u>, Friday Morning session, V Latin American Symposium on Nuclear Physics, Santos, Brazil, Sept. 5, 2003, <u>http://www.sbf1.if.usp.br/eventos/rtfnb/xxvi/</u>.

- 3. <u>Chair</u>, 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.
- 4. <u>Chair</u>, 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.

5. <u>Chair</u>, plenary session, meeting of the Texas Section of the American Physical Society, held at Texas Christian University, Forth Worth, Texas, Oct., 2001.

6. <u>Chair of Session 3</u>, XXIV Symposium on Nuclear Physics", Taxco, Mexico, Jan. 3-6, 2001.

2000

7. <u>Chair</u>, nuclear physics II session, XLIV Annual Meeting of the Mexican Society of Physics, Morelia, Mexico, Oct. 2000.

1999

- 8. <u>Chair</u>, "Session 2: Nuclear Structure", Third Latin-American Workshop on Nuclear and Heavy Ion Physics, Universidad Nacional de Colombia, San Andrés, Colombia, Sept. 13, 1999.
- 9. <u>Chair</u>, "IV LWNHIP and Beyond", Third Latin-American Workshop on Nuclear and Heavy Ion Physics, Universidad Nacional de Colombia, San Andrés, Colombia, Sept. 17, 1999.

<u>1998</u>

10. <u>Chair</u>, session "Physics in Mexico", Meeting of the Texas Section of the American Physical Society, to be held at UTEP, October 15-17, 1998.

1997

- 11. <u>Chair</u>, Session CC on High Energy/Particle Physics II, Meeting of the Texas Section of the American Physical Society, Denton, Texas, Oct. 10, 1997.
- 12. <u>Chair</u>, Invited Symposium on Nuclear Physics, Joint Meeting of the Canadian-American and Mexican Physics Societies, Washington, D.C., in April, 18-21, 1997.

1995

 <u>Chair</u>, Invited Symposium on "Physics of Reduced Dimensionality", Meeting of The American Physical Society, San Jose, CA, Mar. 21, 1995.

1994

- 14. Chair of Symposium, Meeting of the American Physical Society, Crystal City, VA, 4/94.
- 15. <u>Chair</u>, Invited Symposium "Researchers at the Leading Edge", Meeting of the American Physical Society, Crystal City, VA, 4/94.
- 16. Chair of Symposium, Meeting of the American Physical Society, Pittsburgh, PA, 3/94.

Member of advisory boards

2008

1. <u>Member</u>, International Advisory Committee, fourth Symposium on Radiation Physics, Valle de Bravo, Mexico, Feb. 27-Mar. 2, 2008.

2007

- 2. <u>Member</u>, International Advisory Committee, VII Latin-American Symposium on Nuclear Physics, Cuzco, Peru, June, 2007.
- 3. <u>Member</u>, International Advisory Committee, Symposium on XXX Nuclear Physics, Cocoyoc, Mexico, Jan. 3-6, 2007.

2006

- 4. <u>Member</u>, International Advisory Committee, Second Symposium on Radiation Physics, Chihuahua, Mexico, Feb. 27-Mar. 2, 2006.
- Member, International Advisory Committee, Symposium on XXIX Nuclear Physics, Cocoyoc, Mexico, Jan. 4-7, 2006.

2005

- 6. <u>Member</u>, International Advisory Committee, VI Latin-American Symposium on Nuclear Physics, held in Iguazu, Argentina, Sept., 2005.
- 7. <u>Member</u>, International Advisory Committee, Symposium on XXVIII Nuclear Physics, Cocoyoc, Mexico, Jan., 2005.

2004

- 8. <u>Member</u>, International Advisory Committee, VI Latin-American Symposium on Nuclear Physics, to be held in Buenos Aires, Argentina, Sept., 2005.
- 9. <u>Member</u>, International Advisory Committee, Symposium on XXVII Nuclear Physics, Taxco, Mexico, Jan., 2004.
- 10. <u>Member</u>, Int. Advisory Committee, Second Symposium on Radiation Physics, Colima, Mexico., Feb., 2004.

- 11. Member, Int. Advisory Committee, First Symposium on Radiation Physics, Mexico D.F., Dec., 2003.
- 12. Member, Int. Advisory Committee, Symposium on XXVI Nuclear Physics, Taxco, Mexico, Jan., 2003.
- Member, International Advisory Committee, V Latin-American Symposium on Nuclear Physics, held in Santos, Brazil, Sept. 1-5, 2003.
- 14. <u>Member</u>, International Advisory Committee, Varenna Conference on Nuclear Reaction Mechanisms, Jun. 9-13, 2003.

15. <u>Member</u>, International Advisory Committee, Symposium on XXV Nuclear Physics, Taxco, Mexico, Jan., 2002.

2001

- Member of The International Scientific Advisory Committee, Pan-American Advanced Studies Institute on Computational Materials Science, Pontificia Universidad Católica de Chile, Santiago, Chile, Jan 8 -19, 2001 (<u>http://www.iitap.iastate.edu/iitap/pasi.html</u>).
- 17. <u>Member</u>, Int. Advisory Committee, Symposium on XXIV Nuclear Physics, Taxco, Mexico, Jan. 3-6, 2001.

1999

- 18. <u>Member</u>, International Advisory Committee, Third Latin-American Workshop on Nuclear Physics, San Andres, Colombia. Sept. 1999.
- 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.

1997

20. <u>Member</u>, International Advisory Committee, Second Latin-American Workshop on Nuclear Physics, Universidad Simon Bolivar, Caracas, Venezuela, Sept. 1-5, 1997.

1995

21. <u>Member</u>, International Advisory Committee of the XVIII Symposium on Nuclear Physics, held in Oaxtepec, Mexico from Jan. 4-7, 1995.

Refereeing and reviewing

- 1. <u>Reviewer</u>, ten proposals submitted to DoD, June, 2008.
- 2. <u>Referee</u>, of one article for Rev. Mex. Fis., May, 2006.
- 3. <u>Reviewer</u>, proposal submitted to ACS- PRF# 43970-GB5 grant of the Petroleum Research Fund, Aug. 2005.
- 4. <u>Reviewer</u>, of one article for Brazilian Physics Journal, November 2003.
- 5. <u>Reviewer</u>, of the article "Breaking Atomic Nuclei Into Little Pieces: Evidence for a Phase Transition" for Rev. Mex. Fis., February, 2003.
- 6. <u>Reviewer</u>, of a proposal submitted to ACS-PRF type G grant of the Petroleum Research Fund, 4/1/2003.
- 7. <u>Reviewer</u> of a nuclear theory proposal submitted to NSF, 1/2001.
- 8. Referee of two papers for The Physical Review C in 1999.
- 9. Referee of two papers for The Physical Review C in 1998.
- 10. Reviewer of a nuclear physics proposal submitted from Russia to Pacific Norwest Lab., 5/1998.
- 11. Referee, of two papers for The Physical Review C and The Physical Review Letters in 1997.
- 12. Reviewer of a NSF RIMI Proposal in Nuclear Physics in 1996.
- 13. <u>Referee</u> of two papers for Revista Mexicana de Fisica in 1995.

4. RESEARCH PROPOSALS, GRANTS AND CONTRACTS

- 1. <u>Minorities in Radiation Oncology Physics</u>, PIs: M. Manciu and R, Waggener (UTHSCSA), co-PIs: J. López, NIH-RFA-CA05-020, \$535,000, funded.
- Increasing the Retention and Success of STEM Students through the Middle Years, PI: B. Flores, Co-PIs: R. Osegueda, J. A. López, M. Khamsi, J. Becvar, J. Noveron, National Science Foundation Proposal No.0622575, \$1,997,103.00, Feb. 09, 2006, denied.
- **3.** <u>Isoscaling: a proposal to APS Travel Grant Award Program</u>, PI: J. A. López, Co-PI: C. O. Dorso, American Physical Society Forum of International Physics, \$2,000, May, 2006, not funded.

- 4. <u>Alliance of early education in Physical science</u>, PI: S. Blake, Co-PI: J. A. López, National Science Foundation Proposal No. 0607120, \$1,349,542.00, Nov. 14, 2005, discouraged.
- Minorities in Radiation Oncology Physics, PIs: J. López and R, Waggener (UTHSCSA), co-PIs: M. Manciu and Carlos Esquivel (UTHSCSA), NIH-RFA-CA05-020, \$510,245, submitted on 2/21/2005, not funded.
- 6. <u>High-Resolution Scanning Probe Microscopy: Enhancing the Interdisciplinary Collaborations at UTEP</u>, 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, not funded

7. <u>CREST: Center for Computational Science and Engineering</u>, PI: J. López, co-PIs: D. Doser, R. Ravelo, B. Usevitch, and D. Williams, NSF-CREST program, \$5,000,000, 1/21/2004, not funded.

2003

- 8. <u>The Texas EXtensive Air-shower-array Network (TEXAN)</u>, 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. Not invited to apply.
- 9. <u>CREST: Center for Computational Science and Engineering</u>, PI: J. López, co-PIs: C. Chiu, D. Doser, H. Nazeran, R. Ravelo, and B. Usevitch, NSF-CREST program, \$4,918,105, submitted on 14/1/03. Denied.
- <u>Student Sponsorship at the Fifth Latin American Symposium on Nuclear Physics</u>, PIs: P. Cole and J. López, , NSF-International Programs, \$18,000, submitted on 16/12/2003. Funded.

2002

- 11. <u>Development of a Laboratory for Research and Graduate and Undergraduate Education in Surface</u> <u>Studies</u>, PIs: J. López and W. Durrer, NSF-DMR-IMR, \$70,000, submitted on January 25, 2002. Denied.
- 12. <u>Modern Physics Simulations</u>, MIE's Undergraduate Research Stipends Program, \$12,000 for the period of 1/1/02 to 12/31/03. Funded.
- 13. <u>Nuclear fragmentation</u>, MIE's Undergraduate Research Stipends Program, \$6,000 for the period of 1/1/02 to 12/31/03. Funded.

2000

- Search for Evidence of Low-Frequency Gravitational Radiation in Archived Radio Doppler Data from <u>Pioneer 10</u>, 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, not funded.
- 15. J.A. López, "Physics 2000", UTEP Center for Border Studies, for \$1,750 for the period of 1/00 to 6/00, funded.

1999

- 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. Funded.
 1998
- 17. J.A. López, "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. Funded.

1997

- 18. <u>Cooperative Research Program to Study Heavy Ion Reactions</u>, The National Science Foundation and Argentina's CONICET (with C. Dorso), \$32,780 for the period of 6/97 to 4/2001, funded.
- 19. 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. Funded.
- **20.** 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. Not funded.
- R. Ravelo, J.A. López, 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 <u>National Science</u> <u>Foundation</u>. Not funded.

1996

22. <u>RUI: A Study of Heavy Ion Reactions</u>, 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.

- **23.** J.A. Lopez, "<u>A Study of Heavy Ions</u>", submitted to <u>The Department of Energy</u>, requesting \$161,002 for a total project cost of \$182,702, for the period of 6/1/96 to 5/31/99. Not funded.
- 24. 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 <u>National Science Foundation</u> for the amount of \$76,225 for a total project cost of \$112,734. Not funded.
- 25. J.A. Lopez, "Atomic Nuclei Under Extreme Conditions of Temperature Density and Angular Momentum", submitted to <u>The Advanced Research Program</u>, in collaboration with Texas A&M University requesting \$138,977 for a total project cost of \$223,977 for the period of 1/96 to 12/97. Not funded.

- 26. J.A. Lopez, "<u>Detection of Gravity Waves by Autocorrelation Techniques</u>", 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.
- 27. D. Shapira, J. Gomez del Campo, J. McConnell, and J.A. Lopez, "<u>Studies of Heavy Ion Collision</u> <u>Dynamics</u>", 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. Funded.
- **28.** J.A. Lopez, "<u>Energy, Mass and Momentum Flow in Heavy Ion Reactions</u>", submitted to the <u>Welch</u> <u>Foundation</u>, requesting \$72,146 for the period of June1994 to May 1996. Not funded.

1993

- **29.** 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, requesting \$369,061 for the period of September 1, 1993 to August 31, 1996. Not funded.
- 30. J.A. Lopez, "AWU Faculty Fellowship", requested to Associated Western Universities (sponsored by the US Department of Energy) on February 1992, for approximately \$10,000 for the period of July 1, 1993 to August 31, 1993. Funded.
- 31. 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.
- 32. J.A. López 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 <u>Advanced Research Program</u>, requesting \$117,954 for a total project cost of \$188,399 for the period of November 1993 to October 1995. Not funded.
- **33.** J.A. López, "Detection of Gravity Waves by Autocorrelation Techniques", submitted on July 14, 1993 to the Texas Higher Education Coordinating Board <u>Advanced Research Program</u>, requesting the full project cost of \$49,272, for the period of November 1993 to October 1995. Not funded.
- **34.** J.A. López, "A Molecular Dynamics Study of Nuclear Projectile Breakup", submitted on May 10, 1993 to <u>Research Corporation</u>, requesting \$23,099 for a total project cost of \$30,828 for the period of January 1994 to December 1995. Not funded.

- **35.** J.A. López, "Transition State Treatment of Nuclear Fragmentation", submitted on December 2, 1992 to <u>The Department of Energy</u>, requesting \$77,394 for a total project cost of \$89,394, for the period of June 1, 1993 to May 31, 1995. Not funded.
- 36. J.A. Lopez, "AWU Faculty Fellowship", requested to Associated Western Universities (sponsored by the US Department of Energy) on February 1992, for approximately \$9,000 for the period of June 1, 1992 to July 31, 1992. Funded.
- **37.** J.A. López, "Detection of Gravity Waves by Autocorrelation Techniques", submitted on June, 1992 to the <u>Minority Initiative Program of the Jet Propulsion Laboratory</u>, requesting \$52,439 for a total project cost of \$66,439 for the period of January 1992 to December 1993. Not funded.
- **38.** J.A. López, "Transition State Treatment of Nuclear Fragmentation", submitted on October 29, 1992 to the 1993 <u>University Research and Development Grant Program of Cray Research, Inc</u>, requesting \$40,000 for a total project cost of \$58,800, for the period of January 1, 1993 to December 31, 1993. Not funded.
- **39.** 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. Not funded.

- 40. 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. Funded.
- 41. 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.
- 42. 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. Funded.
- **43.** C.A. Ordonez and J.A. López, "Investigation of Nuclear Reactions During Ion Implantation", submitted on January 31, 1991 to <u>The National Science Foundation</u>, requesting \$11,729 for a total project cost of \$13,549, for the period of May 1, 1991 to August 31, 1991. Not funded.
- 44. J.A. López, "The Mass-to-Light Ratio in the Core of Galaxy Clusters", submitted on July 10, 1991 to the Texas Higher Education Coordinating Board - <u>Advanced Research Program</u>, requesting \$46,906 for a total project cost of \$80,362, for the period of November 1991 to October 1993. Not funded.
- 45. J.A. López, "The Mass-to-Light Ratio in the Core of Galaxy Clusters", submitted on June, 1991 to the <u>Minority Initiative Program of the Jet Propulsion Laboratory</u>, requesting \$47,847 for the period of January 1, 1992 to December 31, 1993. Not funded.

- 46. J.A. Lopez, "Disassembly of Nuclear Drops", submitted to The Center for Environmental Resource Management - UTEP, requesting \$9,000 for the period of October 1990 to May 1991. Funded.
- 47. 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.
- **48.** J.A. López, "Faculty Development Award", submitted on November 29, 1990 to <u>The General Electric</u> <u>Foundation</u>, requesting \$12,500 for the period of January 1, 1991 to December 31, 1991. Not funded.
- **49.** J.A. López, "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. Not funded.

5. AWARDS AND HONORS FOR RESEARCH OR SCHOLARSHIP

- 1. Fellow, American Physical Society, 2007
- 2. <u>Rho-Sigma-Tau Shumaker Professor</u>, UTEP, since 2/2001 until I die.
- 3. Nominated for UTEP's "Distinguished Service to the University/Students Award", 4/2000, not selected.
- 4. <u>APS Centennial Speaker</u>, named by the American Physical Society, to deliver talks at interested 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.
- 5. <u>Nominated</u> for UTEP's "Distinguished Award for Research", 4/1998 not selected.
- 6. CUESTA Faculty Fellowship, \$6,500, May/ June, 1996.
- 7. <u>Graduate Student Award</u>, given by the Association of Former Students of Texas A&M University for the Best Doctoral dissertation in the 85-86 academic year.

Honors received by my students while under my supervision

- 8. <u>Texas Section American Physical Society Best Undergraduate Presentation</u>, to BS student Jorge Muñoz, October, 2006.
- 9. <u>UTEP nominee for 2005 USA Today's US Academic Team</u> was my BS student Alan Davila, December, 2005.
- 10. <u>2004 UTEP's Science and Engineering Award for Outstanding Graduate Thesis</u>, to my MS student Jesus Escamilla Roa, April, 2004.

6. ATTENDANCE AT MEETINGS OF PROFESSIONAL ORGANIZATIONS 2006

1. Meeting of the <u>Executive Board of the Division of Radiation Physics of the Mexican Society of Physics</u>, held at Centro de Materiales Avanzados, Chihuahua, Mexico, Feb. 29, 2006.

2005

- 2. Meeting of the <u>Forum on International Physics of the American Physical Society</u>, Tampa, FL, 4/17/2005. **2003**
- 3. Meeting of the <u>Executive Board of the Division of Radiation Physics of the Mexican Society of Physics</u>, held at Universidad Nacional Autónoma de México, Mexico City, Mexico, December 3, 2003.

- 4. Meeting of the <u>Executive Board of the National Society of Hispanic Physicists</u>, held at University of Texas at Brownsville, Brownsville, Texas, October, 2002.
- 5. Meeting of the <u>Executive Committee of the Texas Section of the American Physical Society</u>, held at University of Texas at Brownsville, Brownsville, Texas, October 2002.
- 6. Meeting of the <u>Executive Board of the National Society of Hispanic Physicists</u>, held at Stephen F. Austin University, Nacogdoches, Texas, March, 2002.
- 7. Meeting of the <u>Forum on International Physics of the American Physical Society</u>, Albuquerque, NM, April 19-20, 2002.
- 8. Meeting of the <u>Executive Committee of the Texas Section of the American Physical Society</u>, held at Southwest Texas State University, San Marcos, Texas, March 2002.

9. Meeting of the <u>Executive Board of the National Society of Hispanic Physicists</u>, held at Texas Christian U., Fort Worth, Texas, October, 2001.

10. Meeting of the <u>Executive Committee of the Texas Section of the American Physical Society</u>, held at Texas Christian U., Fort Worth, Texas, October 2001.

2000

- 11. Meeting of the Executive Committee of the Texas Section of the American Physical Society, held at Rice U., Houston, Texas, October 27, 2000.
- 12. General Meeting of the <u>Texas Section of the American Physical Society</u>, held at Rice U., Houston, Texas, October 28, 2000.
- 13. Meeting of the <u>Executive Board of the National Society of Hispanic Physicists</u>, held at Rice U., Houston, Texas, October 27, 2000.

1999

- 14. Meeting of the Executive Committee of the Texas Section of the American Physical Society, held at U. Texas, Austin, Texas, October 27, 1999
- 15. General Meeting of the Texas Section of the American Physical Society, held at U. Texas, Austin, Texas, October 28, 1999.
- 16. Meeting of the Executive Board of the National Society of Hispanic Physicists, held in Portland Oregon, October 16, 1999.
- 17. IV Meeting of the 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, Mar. 1, 1999.
- III Meeting of the 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, Feb. 28, 1999.

1998

- 19. Meeting of the Executive <u>Committee of the Texas Section of the American Physical Society</u>, UT El Paso, El Paso, Texas, October 15, 1998.
- 20. Meeting of the Executive Committee of the Texas Section of the American Physical Society, U. Texas at El Paso, El Paso, Texas, October 15, 1998.
- 21. II Meeting of the 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, Sept. 3, 1998.
- 22. I Meeting of the 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, June 15, 1998.

1997

- 23. Meeting of the <u>Executive Committee of the Texas Section of the American Physical Society</u>, U. North Texas, Denton, Texas, October 9, 1997.
- 24. General Meeting of the <u>Texas Section of the American Physical Society</u>, U. North Texas, Denton, Texas, October 10, 1997.
- 25. Meeting of the Executive Board of the National Society of Hispanic Physicists, Houston, Texas, October 8, 1997.

Organizational Meeting of the <u>National Society of Hispanic Physicists</u>, Austin, Texas, May, 1997.
 1996

27. Meeting of the <u>Executive Committee of the Texas Section of the American Physical Society</u>, UT Arlington, Arlington, Texas, October 11, 1996.

28. General Meeting of the <u>Texas Section of the American Physical Society</u>, UT Arlington, Arlington, Texas, October 11, 1996.

29. 3rd Meeting of the Educational Task Force, NASA's Office of Space Science, Las Cruces, 5/1996. **1995**

30. 2nd Meeting of the Educational Task Force, NASA's Office of Space Science, Annapolis, VA, 2/1996.

31. 1st Meeting of the Educational Task Force, NASA's Office of Space Science, Washington, DC, 11/1995.
 32.

7. DESIGN AND DEVELOPMENT OF RESEARCH FACILITIES

- Portable PIXE, Spring 2008.
- <u>Reconstruction of the Physics Computer Laboratory</u>, acquisition of twelve new computers, with R. Ravelo, Spring 2006
- Reconstruction of the Advanced Laboratory, with M. Castro Colin, Fall 2005 date
- <u>Radio Astronomy</u>. Development and construction of a radio telescope for PHYS 3243, with Luis Basurto, spring 2005 to date.
- <u>Reconstruction of a Laboratory For Surface Studies</u>, with W. Durrer, Fall 2002 Spring 2003, funded with \$119,000 from DOD grant.
- <u>PIXE with Alpha from Americium</u>, development of experimental setup with UG students Mario Borunda and Manuel Antonio Ramos, Fall 2001and Fall 2003.
- X-ray detector, a multichannel analyzer, and a power supply. Obtained with funding from UTEP's MIE. Fall 1997.
- <u>Computational Physics</u>. Equipment used in research in computational physics acquired with funding from many sources and donations. Equipment includes:
 - IBM workstation RS\600 model 370, obtained with funding from UTEP's College of Science. 1995.
 - IBM Donation composed of an IBM workstation RS\600 model 320 and four X-terminals, 1995.
 - Four X-Terminals, added to IBM RS/6000 system, with funding 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), obtained with funding from the NASA Network Resource and Training Sites grant, 1996.
 - IBM F50 workstation, (cost over \$24,000) obtained with funding from two of my NSF grants and some indirect-cost money, 5/1997.
 - Sparc Sun workstations (model Ultra 5), with funding from the NASA Network Resource and Training Sites grant, 1997.
 - 3 IBM P43 workstations, transferred from UTEP UGLC's UNIX lab to physics, 9/99.

8. RESEARCH LEADING TO IMPROVEMENT IN PEDAGOGY

- <u>PIXE with Alpha from Americium</u>, development of an in-class demo "Alpha PIXE Spectroscopy", with elaboration of pre- and post-exams. With the help of physics student Mario Borunda and lecturer Jaime Morales. Fall 2002. Testing occurred in two Modern Physics Courses in the Fall of 2002.
- <u>Modern Physics Simulations, a</u> project funded by CETAL to test educational material for the modern physics class. With physics students M. Ortiz and Y. Dominguez. From 9/2001 to 8/2002.
- "<u>Are charges needed to understand circuits</u>?", with M. Cortés and C. Velasco, research project for the improvement of educational science kits for education majors, 1997.

9. OTHER

Main collaborators

- Paolo Amore, Universidad Autonoma de Colima, Colima, Mexico, from 2003 to date.
- Efrain Chavez Lomeli, Universidad Nacional Autonoma de Mexico, 1999 to date.
- S. Blake, Teacher Ed. Dept. UTEP, from 1999-2001.
- R. Osegueda, FAST Center, UTEP, 1996-1997
- T-S. Harry Lee, Physics Division, Argonne National Laboratory, 1996.
- J.D. Anderson, Senior Research Scientist, Jet Propulsion Laboratory, from 1994-1998.
- Rene Roy, Universite Laval, Canada, 1993-1998
- C.O. Dorso, University of Buenos Aires, Buenos Aires, Argentina, from 1992 to date.
- J. Randrup, Senior Researcher, Nuc. Sci. Div., Lawrence Berkeley Nat. Lab, 1987-1994
- H. Schulz, Senior Researcher, IFTR, Rossendorf, Germany, 1986-1988.
- J. Bondorf, Senior Researcher, Niels Bohr Institute, Copenhagen, Denmark, 1985-1987.
- P.J. Siemens, Professor, now at Physics Department, Oregon State Univ., 1983-1986.

Research Guests

2006

- 1. Alfredo Aranda, Universidad de Colima, Colima, Mexico, Jun. 2-21, 2006
- 2. <u>Claudio Dorso</u>, Universidad de Buenos Aires, May 24-Jun 3, 2006
- 3. Efraín Chávez, Universidad Nacional Autónoma de México, D.F., Mexico, Feb. 24-26, 2006.
- 4. Guillermo Espinosa, Universidad Nacional Autónoma de México, D.F., Mexico, Feb. 24-26, 2006.
- 5. <u>Matthew Baring</u>, Rice University, Houston, TX, Jan. 25, 2006
- 6. Keith Stowe, Cal Poly State University, San Luis Obispo, CA, Jan. 13-14, 2006

2005

2004

- 7. Armando Barrañón, Univ. Autónoma Metropolitana-Azcapotzalco, Mexico D.F., Dec. 18-23, 2005.
- 8. Francisco Solis, Arizona State University, Dec. 9, 2005.
- 9. Benjamin Zeidman, Argonne National Lab., Argonne, Illinois, Nov. 16, 2005.
- 10. Michael Martin Nieto, Los Alamos National Lab., Los Alamos, NM, Oct 19, 2005.
- 11. Mario Diaz, University of Texas at Brownsville, Brownsville, Texas, Sep. 21, 2005.
- 12. Alfredo Aranda, Universidad de Colima, Colima, Mexico, Jul. 1-30, 2005.
- 13. Damond Benningham, McDonald Observatory, Austin, Texas, Apr. 20, 2005.
- 14. Claudio Dorso, Universidad de Buenos Aires, Feb. 23, 2005.
- 15. Michael Thoennessen, Michigan State University, Jan. 13, 2005.

2004

- 16. Claudio Dorso, Universidad de Buenos Aires, Aug. 1 15, 2004.
- 17. Paolo Amore, Universidad de Colima, Colima, Mexico, Dec. 13-24, 2004.
- 18. Alfredo Aranda, Universidad de Colima, Colima, Mexico, Jun. 1-25, 2004.
- 19. Claudio Dorso, Universidad de Buenos Aires, Oct. 16-26, 2004.

2003

- 20. Alfredo Aranda, Universidad de Colima, Colima, Mexico, Dec. 18, 2003.
- 21. Paolo Amore, Universidad de Colima, Colima, Mexico, Dec. 18, 2003.
- 22. Claudio Dorso, Universidad de Buenos Aires, Ago. 21 27, 2003.
- 23. Efraín Chávez, Universidad Nacional Autónoma de México, Mexico, D.F., Mexico, Sept. 14, 2003.
- 24. Guillermo Espinosa, Universidad Nacional Autónoma de México, Mexico, D.F., Mexico, Sept. 14, 2003.
- 25. Dan Bruton, Stephen F. Austin University, Ago. 18 20, 2003.
- 26. Alfredo Aranda, Universidad de Colima, Colima, Mexico, Jan. 15, 2003.

2002

- 27. Benjamin Zeidman, Argonne National Lab., Argonne, Illinois, Nov. 19, 2002.
- 28. Alex De Lozanne, University of Texas at Austin, Austin, Texas, Oct. 8, 2002.
- 29. Efraín Chávez, Universidad Nacional Autónoma de México, Mexico, D.F., Mexico, Sept. 18, 2002.
- 30. Alfredo Aranda, Boston University, Boston, MA, Nov. 29, 2001.

2001

- 31. Marcos Moshinsky, Universidad Nacional Autónoma de México, Mexico, D.F., Mexico, Mar. 14, 2001.
- 32. Claudio Dorso, Universidad de Buenos Aires, Feb. 10 25, 2001.

2000

33. Efraín Chávez, Universidad Nacional Autónoma de México, Mexico, D.F., Mexico, Sept. 21, 2000.

- 34. Phil Siemens, Oregon State University, Corvallis, OR, Apr. 11-13, 2000.
- 35. <u>Armando Barrañón</u>, Universidad Autónoma Metropolitana, Mexico D.F., Mexico, Jan. 3 8, 2000. **Pre 2000**
- 36. Aldo Bonasera, Inst. Nuclear Physics, Catania, Italy, Nov. 5 7, 1999.
- 37. Armando Barrañón, Univ. Autonoma Metropolitana, Mexico D.F., Mexico, 8/20/1999 9/9/1999.
- 38. Armando Barrañón, Univ. Autonoma Metropolitana, Mexico D.F., Mexico, 12/20/1998 1/5/1999.
- 39. Claudio Dorso, Universidad de Buenos Aires, Jun. 12 Jul. 27, 1998.
- 40. Raul Donangelo, Universidad Federal do Rio de Janeiro, May. 11 15, 1998.
- 41. Fernando Cristancho, Universidad Nacional de Colombia, Feb. 18-20, 1997.
- 42. T.-S. H. Lee, Argonne National Lab., Mar. 11-14, 1997.
- 43. Shalom Shlomo, Cyclotron Institute, Texas A&M Univ., May 29-30, 1997.
- 44. John Anderson, Jet Propulsion Lab, April, 1996.
- 45. Claudio Dorso, Universidad de Buenos Aires, Sep. 28 Oct. 13, 1996.

Visit to Institutions

2008

- 1. Michigan Stat U., East Lansing, Michigan, Jan. 2008.
- 2. Argonne National Lab., Argonne, Illinois, Jan. 2008.

2007

- 3. Southern Illinois U., Carbondale, Illinois, Nov. 2007.
- 4. Bradley U, Peoria, Illinois, Nov. 2008.

2006

- 5. Universidad Autónoma de Colima, Colima, México, May 28-Jun 4/2006.
- 6. <u>Universidad de Buenos Aires</u>, Buenos Aires, Argentina, Apr. 23 29, 2006.
- 7. Centro de Materiales Avanzados, Chihuahua, Mexico, Feb. 27 Mar. 2, 2006.

2005

- 8. Universidad Autonóma de Baja California, Ensenada, B.C. México, Nov. 23-25, 2005.
- 9. Universidad Autonoma de Colima, Colima, Mexico, Aug. 31 Sep. 6, 2005.
- 10. Universidad Nacional Autónoma de México, México D.F., México, Jun. 27-Jul. 8, 2005.
- 11. Universidad Autonoma de Colima, Colima, Mexico, April 29 May 5, 2005.

2004

- 12. Arkansas State University, Jonesboro, Arkansas, Oct. 7, 2004.
- 13. Universidad Autonoma de Colima, Colima, Mexico, June 1-25, 2004.
- 14. Universidad Autonoma de Colima, Colima, Mexico, April 13-16, 2004.
- 15. Universidad Nacional Autonoma de Mexico, Mexico D.F., Mexico, Mar. 13 16, 2004.

2003

16. Universidad Nacional Autónoma de México, México D.F., México, Dec. 1-5, 2003.

17. Universidad Autónoma de Colima, Colima, México, July/1-31/2003.

2002

- 18. <u>Universidad de Buenos Aires</u>, Buenos Aires, Argentina, Nov. 23 28, 2002.
- 19. Instituto Nacional de Investigaciones Nucleares, Salazar, México, Jul. 2, 2002.

20. <u>Universidad Nacional Autónoma de México</u>, México D.F., México, Jun. 15 - Jul. 15, 2002. **2001**

- 21. Universidad de Montevideo, Montevideo Uruguay, Mar. 8-9, 2001.
- 22. Universidad de Buenos Aires, Buenos Aires, Argentina, Feb. 25 Mar. 12, 2001.

2000

- 23. Universidad Nacional Autónoma de México, México D.F., México, Aug. 26-29, 2000.
- 24. Instituto Nacional de Investigaciones Nucleares, Salazar, Mexico, Aug. 28, 2000.
- 25. Universidad de Buenos Aires, Buenos Aires, Argentina, Aug. 6-21, 2000.

1999

- 26. Universidad Nacional de Colombia, Sep. 11, 1999, Bogota, Colombia.
- 27. Universidad Autonóma Metropolitana, Jun. 6, 1999, Mexico D.F., Mexico.
- 28. Universidad de Buenos Aires, Jul.-Aug., 1999, Buenos Aires, Argentina.

- 29. <u>Universidad Nacional Autónoma de México</u>, Jun. 9-10, 1998, Mexico D.F., Mexico. **1997**
- 30. U. North Texas, Accelerator Facility, Denton, Texas, May 1-3, 1997.

- 31. <u>Universidad de Buenos Aires</u>, Buenos Aires, Argentina, Jun.-Jul., 1997, with undergraduate physics student Jaime Morales.
- 32. TANDAR (Tandem Accelerator), Buenos Aires, Argentina, Jun. 18, 1997
- 33. Centro Atomico Bariloche, Bariloche, Argentina, Jun. 22-29, 1997.
- 34. Universidad Nacional de Colombia, Bogota, Colombia, Sept. 8-13, 1997.
- 35. Centro Internacional de Fisica, Bogota, Colombia, Sept. 10, 1997.
- 36. Universidad Simon Bolivar, Caracas, Venezuela, Sept. 1-5, 1997
- 37. Instituto Nacional de Energia Nuclear, Salazar, Mexico, Nov. 27, 1997.
- 38. Universidad Nacional Autonoma de Mexico, Mexico D.F., Mexico, Nov. 27, 1997
- 39. Instituto Politecnico Nacional, Mexico D.F., Mexico, Nov. 28, 1997.

- 40. Jet Propulsion Laboratory, Space and Planetary Sciences Division, Pasadena, CA, 5/24 to 6/24, 1996, with MS physics student Raul Armendariz.
- 41. Argonne National Laboratory, Physics Division, Argonne, Illinois, July 25, 1996.

1995

- 42. Universidad Simón Bolívar, Caracas, Venezuela, Sept. 7-12, 1995.
- 43. CEBAF, Theory Group, Newport News, Virginia, December 12, 1995.

1994

- 44. <u>Argonne National Laboratory</u>, Physics Division, Argonne, Illinois, May 15 to June 14, 1994, with undergraduate physics student Alfredo Aranda.
- 45. Oak Ridge National laboratory, Physics Dept., Oak Ridge, Tennessee, Feb. 1994.

1993

- 46. Lawrence Berkeley Laboratory, Nuclear Theory Group, Berkeley, California, 7/1 to 8/31, 1993,
- 47. Jet Propulsion Laboratory, Space and Planetary Sciences Division, Pasadena California, June 29, 1993.
- 48. <u>Lawrence Berkeley Laboratory</u>, Nuclear Theory Group, Berkeley, California, March 21-26, 1993. **1992**
- 49. Universidad Autonoma de Mexico, Instituto de Fisica, May 21-27, 1992, Mexico City, Mexico
- 50. <u>Lawrence Berkeley Laboratory</u>, Nuclear Theory Group, Nuclear Science Division, Berkeley, California, June 1 to July 31, 1992.
- 51. <u>Universidade Federal do Rio de Janeiro</u>, Nuclear Theory Group, Physics Dept., Rio de Janeiro, Brazil, September 19-23, 1992.

1991

52. <u>Lawrence Berkeley Laboratory</u>, Nuclear Theory Group, Nuclear Science Division, Berkeley, California, August 18-22, 1991.

1987

53. <u>University of Lund</u>, Department of Cosmic and Subatomic Physics, Lund, Sweden, March and May 1987.

1985

54. Universita degli Studi di Milano, Physics Department, Nov. 1985, Milano, Italy.

Schools and Conferences Attended (not as lecturer)

- 1. "<u>Formacion de Especialistas en Politicas Regionales de Ciencia y Tecnologia</u>", sponsored by the Mexico-USA Foundation, April 22-23, 1999, Puebla Mexico.
- 2. "<u>Recruitment and Retention of Minorities in Physics</u>", organized by the American Association of Physics Teachers, to be held from November 5-7, 1993, Chevy Chase, MD.
- **3.** "Third Annual Minority Initiative Technical Interchange Workshop", Jet Propulsion Laboratory, Jan. 22-25, 1991, Pasadena, California.
- 4. <u>Ettore Majorana School on Nuclear Physics</u>, November 1987, Erice, Italy.
- 5. <u>Third International Conference on Ultra-Relativistic Nucleus-Nucleus Collisions</u>, Brookhaven National Laboratory, September 26-30, 1983, Brookhaven, New York.
- 6. <u>Phase Transitions in Gauge Theories and Their Practical Applications</u>, University of Washington, July 25 to August 6, 1983, Seattle, Washington.
- 7. <u>Nuclear Structure Gordon Conference</u>, August 15 to 19, 1983, Tilton, New Hampshire.
- 8. <u>NATO Pacific Summer Institute</u>, August 22 to September 3, 1982, Vancouver Island, Canada.
- 9. <u>Nuclear Theory Summer Workshop</u>, Univ. of California, August 17-28, 1981, Santa Barbara, California.
- 10. <u>Nuclear Structure Gordon Conference</u>, June 28 to July 2, 1982, New London, New Hampshire.

SERVICE

(2001 TO 2003)

1. COMMITTEE SERVICE (DEPARTMENT, COLLEGE, UNIVERSITY)

- 1. Member, Credit transfer Workgroup for "Building International Higher Education on the U.S.-Mexico Border", Binational Higher Education Consortium ("The Coca Cola project"), coordinated by UTEP's Center for Inter-American and Border Studies, with meetings during the Fall 2004 and Spring 2005.
- 2. Member, Tenure and Promotion Committee, College of Science, AY 2004-2006
- 3. Member, Tenure and Promotion Committee, College of Education, to review Dr. Sally Blake, Fall 2004.
- 4. Chair of Physics Department, since June 2001.
- 5. Chair of Physics Department, June 2001 August 2008
- 6. Assistant Dean of the College of Science, from Fall of 1999 to June 2001.
- 7. Member, Director of Office of International Programs, Spring, 1999.
- 8. Member, Search Committee for the Chair of Physics Department, Spring, 1999.
- 9. Member, VPRSP Search Advisory Committee, from 10/1997 to 5/1998.
- 10. Team Member, UTEP Legacy Campaign, Spring 97.
- 11. Member, Faculty Senate Research Committee, Fall 1996-Spring 1999.
- 12. Member, Provost/VPAA Search Advisory Committee, from 4/95 to 5/96.
- 13. Member, Search Committee for CEBAF position, from Fall 1995 to 1997.
- 14. Member, College of Science Freshman Orientation Committee, Summer 1995.
- 15. Member, Self-Study Physics Committee, Spring 1995.
- 16. Member, UTEP's Health Professions Advisory Committee, Fall 1995.
- 17. Member, UTEP Self-Study Advisory Committee, from Fall 1994 until May 1996.
- 18. Chair, Faculty Senate Library Committee, from 11/94 to 8/95.
- 19. Member, Search Committee for Health Physics position, Fall 1994/Spring 1995.
- 20. Member, Local Organizing Committee 1995 SACNAS Conference, Fall 1994.
- 21. Search Committee for Health Physics position, Fall 1994.
- 22. SACS Advisory Committee, member since Fall 1994.
- 23. Co-Chair, SACS Library Committee, from Fall 1994 until May 1995.
- 24. Member, UTEP Self-Study Steering Committee, from Fall 1994 until June 1996.
- 25. Co-Chair, Self-Study Library & Learning Resources, from Fall 94 until May 96.
- 26. Member, 1995 SACNAS Conference, Local Organizing Committee, Fall 1994.
- 27. Member, MIE Coordinating Group, 1994-1995.
- 28. Member, MIE Advisory Committee, 1994-1995.
- 29. Chair of MIE Physics Committee, during Fall 1994.
- 30. Member, MIE Task Force 6, during Fall 1994.
- 31. Member, MIE Advisory Committee, Fall 1994.
- 32. Member, "Solar Trek" Committee of the College of Science, Spring 1994.
- 33. Committee for the Renovation and Move of the Physics Department, Fall 1993.
- 34. Representative of the Physics Department to the Library, from 1/93 to 8/95.
- 35. Faculty Senate Library Committee, member since Spring 1993 Summer 1995.
- 36. Member, Faculty Senate Library Committee, from Spring 93 until August 95.
- 37. Physics Department Representative to the Library, from 1/93 to 8/95.

2. SPECIAL DUTIES (PROGRAM COORDINATOR, FORMAL ADVISING, ETC.)

- 1. Graduate Advisor, Physics Department, since 9/2001 to 9/2007.
- 2. Coordinator, Masters in Science in Interdisciplinary Studies, from 9/2000 to 9/2001.
- 3. Coordinator, Distance-Learning M.S. Physics Program with UT Brownsville, Since Fall 1998 to date.
- 4. Participant, College of Science Freshman Orientation, Summer 1996.
- 5. Participant, UTEP Board of Fellows Reception, Nov. 16, 1996.
- 6. Participant, <u>Internet and Network Seminar</u>, organized by the NASA Network Resource and Training Sites grant, UTEP, April 15-16, 1996.
- <u>Physics Liaison of NASA Network Resource and Training Sites grant</u>. Responsible for the acquisition of six workstations, one scanner, and a removable hard disk for the creation of the Physics Computer Laboratory (in collaboration with R. Ravelo), and the Physics web pages, 1995-1997. Participant of the Internet and Network Seminar, UTEP, April 15-16, 1996.

- 8. <u>Organizer, Physics Summer Research Program</u>, with 16 participants, AMP funding, June 15 July 12, 1995.
- 9. Participant, AMP Summer Bridge Program, Summer 1995.
- 10. <u>Member of search Committee for NMSU's Nuclear Physics position</u>, for the Physics Department of New Mexico State University and CEBAF, Fall 1995.
- 11. <u>Member of search Committee for Nuclear Physics position</u>, for the Physics Department of New Mexico State University and CEBAF, Fall 1994.
- 12. Representative in video interview of the NSF-AMP, in representation of the College of Science. 9-12-94.
- 13. Advisor of UTEP's Society of Physics Students, 1993-1995.

3. PUBLICATIONS PROFESSIONALLY RELATED TO SERVICE ACTIVITY 2005

1. "<u>Los errores de Einstein</u>", a general audience article published in the Juárez newspaper "El Reto", No. 308, Oct. 21-27, 2005, <u>http://www.elreto.com.mx/</u>.

2003

 "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. Not published, available upon request (in Spanish).

2002

3. Article "Physics mentoring on the Mexico-US Border", Minority Scientists Network of the American Association for the Advancement of Science, June, 2002, 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

2001

- 4. <u>Article "Meet the Experts</u>", published by NOVA, UTEP, Fall 2001, featuring experts on collaborations with Mexico, including Dr. J. A. López.
- <u>Article "Tragedy does not stop nuclear physics seminar at UTEP</u>", by Georgiana Vines for El Paso, Inc., El Paso, TX, Nov. 4-10, 2001, featuring the IV Latin American Symposium on Nuclear Physics organized by J. A. López in Mexico City.
- 6. <u>Article "Nuclear Struggles</u>", 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. López in Mexico City.
- 7. <u>¹/₂ hour interview</u>, by Juarez TV show in Ch. 56, February, 2001.
- 8. <u>Article "The New College Try</u>", Time Magazine, January 8, 2001, featuring the innovating approach to teaching Science Methodology and Physical Science of S. Blake and J. López, <u>http://www.time.com/time/education/article/0,8599,93264,00.html</u>

2000

- 9. Interview, by Channel 5 XECJ, on the January lunar eclipse, Jan. 2000.
- **10.** <u>Interview</u>, by UTEP's NASA/NRST Team, presented by H. Shulte at the Atlanta NASA/NRST Conference, September, 2000.
- 11. Interview, by Radio Net 1490 AM, "Al filo de la ciencia", September, 2000.
- Science articles for La Jornada a Mexican newspaper with national distribution, published titles are:
- 12. "Remojando las barbas del Conacyt", 8/14/2000, (http://serpiente.dgsca.unam.mx/jornada/2000/ago00/000814/cien-cara.html
- **13.** "G. Bruno, Mártir de la ignorancia", 3/13/2000 (<u>http://serpiente.dgsca.unam.mx/jornada/2000/mar00/000313/cien-cara.html</u>
- 14. "2000 Año Bisisesto", 2/14/2000 (http://serpiente.dgsca.unam.mx/jornada/2000/feb00/000214/ciencara.html
- Science articles for "El Reto" a Mexican newspapers with distribution in Juarez:
- 15. "Ovnis y yo", published in the newspaper "El Reto", Cd. Juarez, Chihuahua, Mexico, 2/3/2000

16. "Comprando lunas", published in the newspaper "El Reto", Cd. Juarez, Chihuahua, Mexico, 1/22/2000 Pre 2000

Science articles for "El Reto" - a Mexican newspapers with distribution in Ciudad Juarez:

17. "Fisica aplicada en Colombia", "El Reto", Cd. Juarez, Chihuahua, Mexico, 9/23/99

- 18. "Dios: lo que dice la ciencia", "El Reto", Cd. Juarez, Chihuahua, Mexico, 9/16/99
- 19. "¿Y la ciencia en Juarez?", "El Reto", Cd. Juarez, Chihuahua, Mexico, 9/9/99
- **20.** "Perturbando el Universo", published in the newspaper "El Reto", Cd. Juarez, Chihuahua, Mexico, 9/2/99

<u>Science articles for "El Diario</u>" - a Mexican newspapers with distribution in the State of Chihuahua, Mexico:

- 21. "La Nueva Fsica", published in "El Diario", Cd. Juarez, Chihuahua, Mexico, 4/7/99
- 22. "El Circo de Fsica", published in "El Diario", Cd. Juarez, Chihuahua, Mexico, 4/22/99
- 23. "La Nanofsica", published in "El Diario", Cd. Juarez, Chihuahua, Mexico, 3/23/99
- 24. "Teletransportacion", published in "El Diario", Cd. Juarez, Chihuahua, Mexico, 3/6/99
- **25.** 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.
- **26.** <u>Interview</u>, published in <u>Hispanic Outlook in Higher Education</u>, by Ines Alicea, New Jersey, Apr. 20, 1998.
- 27. Interview, published in UTEP's NOVA, by Walli Haley, Spring 1998.
- **28.** Interview, published in Gaceta Universitaria, the newspaper of the Universidad Autónoma de Cd. Juárez, in "El Arte de Pensar e Investigar", Sept., 1998.
- **29.** 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.
- **30.** Interview, in "Faculty/Mentor Profiles" in UTEP's "Nova", published by UTEP News and Publications, Vol 34, No. 3; No. 133, Spring 1998.
- **31.** Editor of "El Paso Physics Teacher" the newsletter of the Greater El Paso Physics Teachers Association. Published quarterly from 1/95 to 5/98.
- **32.** <u>Editor of "The Hispanic Physicist"</u> the newsletter of the National Society of Hispanic Physicists. Published monthly since 5/97 to date.
- **33.** "<u>Afterglow of Creation</u>", review of the book by Marcus Chown, published in the section "The Scientist's Bookshelf" of the American Scientist 85, 566 1997.
- **34.** Technical Editor of "<u>Universo Almanaque Celestial 1997</u>", published by McDonald Observatory of the University of Texas, 1/1/97.
- **35.** Interview, published in The Dallas Morning News in "<u>Scientists strive to turn young Hispanics' eyes</u> toward the sky", by Mercedes Olivera, Aug. 13, 1997.
- **36.** Technical Editor of "<u>Universo Almanague Celestial 1996</u>", published by McDonald Observatory of the University of Texas, 1/1/96.
- **37.** "<u>Implementing the Office of Space Science Education/Public Outreach Strategy</u>", published by NASA's OSS-Space Science Advisory Committee Education/Public Outreach Task Force, Oct. 15, 1996.
- **38.** Interview, published in El Paso Herald Post in "UTEP shows off hands-on learning", by Laurie Gallardo, 11/12/96.
- 39. Chapter five, SACS Report, with Charles Ambler, Spring 1995.
- **40.** Editor of "El Paso Physics Teacher" the newsletter of the Greater El Paso Physics Teachers Association. Published quarterly from 1/95 to 5/96.
- 41. Editor of COM's newsletter "COM...munications", published by APS, from 1/94 to 12/94.
- 42. "<u>Hispanics in Physics</u>", 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, Crystal City VA, abstract published in the Bulletin, 4/1994.
- **43.** Editor of "<u>Tlaxihuicatl</u>", a physics newsletter published each semester with funds of NASA's Physics Centers Programs. From 9/94 to 6/97.
- 44. "<u>Northeast Chapter of the Society for the Advancement of Chicanos and Native Americans in</u> <u>Science Formed</u>", published in the September 1993 issue of "C.O.M...UNICATIONS", the newsletter of APS' Committee on Minorities.
- 45. "La Materia Oscura", published in Alfa Geminis, V, pp. 3-6, 1993, Juarez, Mexico.
- **46.** "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.
- **47.** "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.
- **48.** J.A. López and V. Martinez, "Cuando Explotan las Estrellas", La Vanguardia, March 1988, Barcelona, Spain.

- 49. J.A. López and V. Martinez, "Hivern Nuclear", (in Catalan), El Temps, August, 1987, Valencia, Spain.
- 50. J.A. López and V. Martinez, "¿Qué pasó en Chernobyl?", El Universal, April, 1987, Juarez, Mexico,.
- **51.** J.A. López and E. Martinez-Gonzalez, "**Una Visita al Museo Cosmico**", El Pais, March 1986, Madrid, Spain.

4. CONSULTING OF SERVICE NATURE

2006

- 1. <u>Evaluator of Physics Ph.D. Program of UT Brownsville</u>, subcontracted by UT Brownsville, Sept. 2006, \$200.
- 2. <u>Instructor of physics workshop for pre-K and K teachers</u>, subcontracted by Ysleta Independent School District, Aug 3 Dec 2006, about \$2,000.
- **3.** <u>Document Rater</u>, for College Board Advanced Placement Best Practices Course Study, March 24, 2006, Center for Educational Policy Research, <u>http://cepr.uoregon.edu</u>, <u>http://www.s4s.org</u>, \$300.
- **4.** <u>**Physics Tutor**</u>, for IB physics course at Coronado High School, EPISD, from January to May, 2006, \$3000.
- 5. <u>Exam Rater</u>, of CLEP Natural Sciences examination, January, 2006, College Board's College Level Examination (CLEP) Program, <u>https://www.standardsetting.org</u>, \$250.

2005

- 6. <u>Panelist</u>, Graduate Research Fellowship Program, NSF, Arlington, VA, for 2/3-5/2005 panel.
- 7. <u>Reviewer</u>, of book "Understanding Physics", 2nd ed., by Cummings, et al., for Content Connections, <u>http://contentconnections.com/</u>, 8/17/2005.
- 8. <u>Instructor of physics development workshop for 32 MSP Staff Developers</u>, subcontracted by UTEP's MSP, Dec. 5, 2005, \$2,000.
- **9.** <u>Instructor of physics development workshop for high school teachers</u>, subcontracted by UTEP's MSP, July 20-21, 2005, \$2,000.
- **10.** <u>Instructor of physics development workshop for pre-K and K teacher</u>, subcontracted by UTEP's MSP for the Kennedy Pre-K Center, June 8-9, 2005, \$2,000.

2004

- 11. Panelist, Graduate Research Fellowship Program, NSF, Arlington, VA, for 2/7-10/2004 panel.
- <u>Advisor</u>, Engineering Physics degree plan of the Universidad Autónoma de Cd. Juárez, Nov. 2003.
 2003
- 13. <u>Advisor</u>, of Engineering Physics degree plan of the Universidad Autónoma de Cd. Juárez, November 2003.

2002

14. <u>**Panelist**</u>, Graduate Research Fellowship Program, NSF, held in Feb 2002 in Arlington, VA. **2001**

- **15.** <u>**Reviewer**</u>, of article "C-16 Tracking Jupiter's Moons", Astronomical Society's Universe at Your Fingertips Resource Notebook , Astronomical Society of the Pacific, October, 2001.
- 16. Panelist, Graduate Research Fellowship Program, NSF, invited in 2001 for 2/2002 panel.
- 17. <u>Technical Editor, "Universo a sus pies"</u>, by the Astronomical Society of the Pacific, Summer-Fall 2001.

<u>Teaching, "Quantum Mechanics</u>", at the Universidad Autonoma de Ciudad Juarez, Spring 2001.
 2000

- 19. <u>Review of book "Concept of Modern Physics</u>" by Beiser, McGraw-Hill, 7/2000.
- **20.** <u>**Technical Editor of ''Universo: Ancient Horizons'',** UT Austin and Science Museum of Virginia, 4/2000.</u>

1997

21. <u>Consulting</u> for Universidad Autonoma de Ciudad Juarez for the creation of the Engineering Physics Career. From 1997 to 9/2001.

1996

22. <u>Reviewer of "Modern Physics, Models and Applications</u>" of Wm. C. Brown Publisher, March 1996.1994

- 23. <u>Technical editor of "Universo"</u>, the Spanish version of "Star Date", the astronomy radio show produced by MacDonald Observatory of the University of Texas at Austin. Organizer of Focus groups, and technical translator. From Fall 1994 to date.
- 24. Organizer of Focus groups for Universo. Fall 1994.

- 25. <u>Reviewer of "Fundamentals of Physics</u>", by Halliday, Resnick and Walker, for the publisher, John Wiley and Sons. Review included survey of faculty and students using the book during the Fall semester of 1994.
- <u>Reviewer of "Fundamentals of Physics"</u>, by Halliday, Resnick and Walker, for the publisher, John Wiley and Sons. Review included survey of faculty and students using the book during the Fall semester of 1994.
- **27.** Consulting for Universidad Autonoma de Ciudad Juarez for the creation of a Physics Career. From Fall 1994 until Spring 1995.

5. OUTREACH ACTIVITIES

2006

1. 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, supported by a donation from Mr. Janacek, attendance varied between 30 and 90, from February to May 2006.

2005

- 2. <u>Recruiting trip</u>, University Autónoma de Baja California, Ensenada, Baja California, Mexico, Nov. 23-25, 2005, supported by the Shumaker professorship.
- **3.** Attendant to "<u>Conacyt Science Fair</u>", Mexico City, Mar. 4-7, 2005. Supported by UTEP's Graduate College and the Shumaker professorship.

2004

- **4.** Attendant to "<u>Conacyt Science Fair</u>", Mexico City, Mar. 5-7, 2004, supported by UTEP's Graduate College and the Schumaker professorship.
- **5. Recruiting trip**, University of Sonora, Hermosillo, Sonora, Mexico, Nov. 24-25, 2004. Supported by the Schumaker professorship.
- 6. 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. Attendance varied between 30 and 220, from September to December, 2004.
- 7. Seminar: "<u>Halloween</u>", delivered to 220 high school students at the series of talks "Ciencia de frontera", Universidad Autónoma de Ciudad Juárez, 11/1/2003.
- 8. <u>The Physics Circus</u>", 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.

2003

- **9.** <u>**Organizer of "Ciencia de frontera**</u>", a series of 17 weekly talks for high school student from Ciudad Juarez, Mexico, at the Universidad Autónoma de Cd. Juárez. Attendance varied between 30 and 220, from august top December, 2003.
- **10.** <u>Seminar: "Halloween</u>", delivered to 220 high school students at the series of talks "Ciencia de frontera", Universidad Autónoma de Ciudad Juárez, 11/1/2003.
- **11.** <u>**"The Physics Circus**</u>", 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.
- 12. <u>Workshop: The Physics Circus</u>", presented to the faculty and students student of the Universidad Autónoma de Cd. Juárez, at the "Semana de Ingeniería 2003", 9/11/2003.

2002

- **13.** Attendant to "<u>Conacyt Science Fair</u>", with Dr. Jorge Gardea, Mexico City and Guadalajara, Mexico, May 8-13, 2002. Supported by The Graduate College, UTEP.
- 14. Visit to five preparatorias in Juarez City, May, 2002.

2001

15. Attendant to "<u>Conacyt Science Fair</u>", with Dr. Jorge Gardea, Mexico City, Sept. 9-12, 2001. Supported by The Graduate College, UTEP.

2000

- 16. "<u>Recruiting Trip to Mexico</u>", a 2-week trip to 11 Mexican institutions in 8 cities. Supported by The Graduate College and The Department of Physics, May-Jun. 2000.
- 17. Visit to four preparatorias in Juarez City, May, 2000.

Pre 2000

18. "<u>Recruiting Trip to Mexico</u>", a 2-week trip to 11 Mexican institutions in 8 cities. Supported by The Graduate College, May-Jun. 1999.

- **19.** "<u>Recruiting Trip to Mexico</u>", a 2-week trip to 11 Mexican institutions in 8 cities. Supported by The Graduate College and The College of Science, May 1998. In collaboration with L. Valdez of the Math Department.
- **20.** <u>Science Presentations</u>. Many school visits for telescope observations, physics demonstrations, etc. Mostly I go to Eastwood Heights Elementary School, and other schools in the Ysleta and Socorro ISD.
- 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, held in El Paso, October 25-27, 1996.
- 22. SPS Activities.
 - 23. Lunch seminar by Ben Zeidman, Argonne Nat. Lab., 10/1996.
 - 24. Lunch seminar by <u>Richard Gomez</u>, US Army Corp of Eng., 10/96.
 - 25. Student Seminars by Sergio Chaparro, Mike McKay and Ken Pane, 5/1996.
 - 26. Tutoring for 4210, 4211 and 3325, Spring 1996.
- 27. NASA Physics Centers Activities (1994-1996)
 - **28.** Supervision of six Physics Centers in Socorro, Andress, Jefferson, Del Valle, El Paso and Fabens high schools.
 - **29.** Physics Newspaper.
 - 30. Presentation by NMSU's Reta Beebe, November, 96.
 - 31. Presentation at UTEP of Nobel Laureate Leon Lederman, May, 1996.
 - 32. Presentation at UTEP of Jet Propulsion Lab's Sami Asmar, October, 1996.
 - 33. Physics Open House, October 23, 1996. With 250 hot dogs cooked!
 - 34. Viewing of lunar eclipse, Del Valle High School, 9/26/96.
- **35.** <u>Visit to Minority Students in Moorehead, Minnesota</u>, Mar. 27-29, 1995. Visited a middle school, a high schools and Moorehead State University.
- 36. Advisor of High School student Adriana Gallegos, UTEP's LIFT-OFF program, summer 1995.
- 37. Visit to two preparatorias in Juarez City, May, 1995.
- **38.** SPS Activities.
 - 39. Lunch seminar by Ben Zeidman, Argonne Nat. Lab., 9/1995.
 - 40. Student Seminars by Raul Armendariz, Jaime Morales and Richard Coronado, Fall 1995.
 - **41.** Tutoring for 4210, 4211 and 3325, Fall 1995.
- 42. NASA Physics Centers Activities (1994-1996)
 - **43.** Supervision of six Physics Centers in Socorro, Andress, Jefferson, Del Valle, El Paso and Fabens high schools.
 - **44.** Physics newspaper.
 - 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. NASA Physics Centers Activities (1994-1996)

- **49.** 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.
- **50.** Presentation at UTEP, Andress and Jefferson H.S. by Ginger Kerrick, NASA Johnson Space Center, 1-23-94.
- **51.** Development of a physics newspaper.
- **52.** Telescope night at five high schools, 9/94.
- 53. SPS Activities.
 - 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 MacDonald Observatory, 11-94.

62. "The Physics Link" Activities.

- **63.** Presentation by Reta Beebe, 5-9-94.
- 64. Observation of Solar Eclipse (over 2000 participants), 5-10-94.

- 65. Pin-Hole Camera Contest, 5-13-94.
- 66. Summer Research Program (12 participants), June 1993.
- **67.** Hot-Air Balloon Contest, 11-20-94
- 68. Presentation by Robert Liefeld, 11-20-94.
- **69.** "**Physics Circus**", presentation at the 1993 SACNAS Annual Conference, Albuquerque, 1-14 to 1-18, 1993.
- 70. Physics Link Activities.
 - 71. Presentation by Robert Liefeld, 4-14-93.
 - 72. Hot-Air Balloon contest, 5-13-93.
 - 73. Summer Research Program, (24 participants), June 1993.
 - 74. Field Trip to White Sands Missile Range, 6-26-93
 - 75. Presentation by Reta Beebe, 10-28-93.
 - 76. Observation of Lunar Eclipse, 11-28-93.
 - 77. Photo Contest of Lunar Eclipse, 12-1-93.
- **78.** "<u>Fisica en UTEP</u>", presentation to physics majors at the Universidad Autonoma de Nuevo Leon, May 20, 1993, Monterrey, Mexico.
- 79. Visit to two preparatorias in Juarez City, May, 1993.
- 80. "Recruiting Seminar", Universidad Nacional Autonoma de Mexico, May 26, 1992.

SERVICE TO PROFESSIONAL ORGANIZATIONS

2006

6.

1. <u>Member</u>, Executive Board of the Division of Radiation Physics of the Sociedad Mexicana de Física, from September, 2003 to August 2006.

2005

2. <u>Past-President</u> of the <u>National Society of Hispanic Physicists</u>. 3/2003-2/2005.

2004

- 3. NSF, Reviewer of the Graduate fellowship Program, Washington, DC. Feb. 2004.
- 4. Past Chair, Texas Section of the American Physical Society, 3/2003-3/2004.
- 5. <u>Member</u>, Executive Committee, Forum on International Physics, American Physical Society, from 12/2001 12/2004.

2003

- 6. <u>Past-President</u> of the <u>National Society of Hispanic Physicists</u>. 3/2003-2/2005.
- 7. <u>Past Chair, Texas Section of the American Physical Society</u>, 3/2003-3/2004.
- Panelist, Round Table Discussion on Science Policy, "I International Symposium on Radiation Physics", Division of Radiation Physics of the Sociedad Mexicana de Física, Mexico City, Dec. 1-3, 2003.
- 9. <u>Member</u>, Executive Board of the Division of Radiation Physics of the Sociedad Mexicana de Física, from September, 2003 to August 2006.

2002

- 10. Chair, Texas Section of the American Physical Society, 3/2002-3/2003.
- 11. Member, Forum of International Physics, American Physical Society, 2002-2005.
- 12. <u>Invited Talk: "Recruiting and Retaining Hispanics in Physics"</u>, Meeting of Department Chairs, American Physical Society, College Park, Maryland, June 7-9, 2002. See Powerpoint presentation at <u>http://physics.utep.edu/LopezNYT/APSChairMeeting/Recruiting%20and%20Retaining%20Hispanics_f</u> <u>iles/frame.htm</u>
- 13. <u>Participant</u>, Meeting on Diversity of the ExxonMobil-AAPT National Task Force on Undergraduate Physics (SPIN-UP program), Irving, Texas, December 7-8, 2002.

2001

- 14. <u>Member</u>, Board of Advisors, Project ASTRO "El universo en sus manos", Astronomical Society of the Pacific, 4/2001 4/2002
- 15. President of the National Society of Hispanic Physicists. 2000-2003.
- 16. <u>Member</u>, Executive Committee, Forum on International Physics, American Physical Society, from 12/2001 12/2004.

2000

17. <u>Vice Chair, Texas Section of the American Physical Society</u>, elected by vote, from 3/2000 to 3/2001, to become chair in 3/2002.

- 18. <u>NSF, Reviewer of the Division of Undergraduate Studies</u> for Instrumentation and Laboratory Improvement Program. Jan. 1997.
- 19. <u>Member, Diversity on the Geoscience</u>, NSF Directorate of Geosciences. Attended meeting in Arlington, VA, May 18-19, 1999.

1998

- 20. <u>Organizer, 1998 Meeting of the Texas section</u> of The American Physical Society, held at UTEP in October 1998.
- 21. <u>Member</u>, Visiting Committee to U. of Pittsburg, Committee on Minorities of the American Physical Society, 3/30-31, 1998.
- 22. Member, Executive Board, Texas Section, American Physical Society, 1998-2000.

1997

- 23. President Elect, National Society of Hispanic Physicists, 1997-2000.
- 24. <u>NSF, Reviewer of the Division of Undergraduate Studies</u> for Instrumentation and Laboratory Improvement Program. 1/97.

1996

- 25. <u>Founder</u>, Member, and Chair of the Nominating Committee of the <u>Society of Hispanic Physicists</u>. Since 1996. Attended meeting in Austin in May 18, 1996.
- 26. <u>NSF, Reviewer of the Division of Undergraduate Studies</u> for Instrumentation and Laboratory Improvement Program. 1/96.
- 27. <u>GEPPTA Founder</u>, Member, and Executive Secretary of the <u>Greater El Paso Physics Teachers</u> <u>Association</u>. 1996-1997. Monthly meetings.
- 28. Chair, Nominating Committee, National Society of Hispanic Physicists, 1996.
- 29. <u>APS Council Representative</u> to the Nominating Committee of the Executive Committee of the Texas Section of the American Physical Society. Since October 1995. Attended meeting in Arlington, Texas in October 10, 1996.

1995

- 30. SACNAS Student advisor, Society for the Advancement of Chicanos and native Americans. Fall 1995.
- 31. Past Chair, Committee of Minorities of the American Physical Society, from 1/95 to 12/95.
- 32. Member, <u>Visiting Team to NMSU's Physics Department</u>, organized by the Committee on Minorities of the American Physical Society. Feb. 27-28, 1995.
- 33. <u>NSF, Reviewer of the Division of Undergraduate Studies</u> for Instrumentation and Laboratory Improvement Program. 1/95.
- 34. <u>Member</u>, 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

1994

- 35. Chair, <u>Committee of Minorities of the American Physical Society</u>, 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.
- 36. "<u>Hispanics in Physics</u>", 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. Abstract published in the Bulletin.
- 37. <u>NSF, Reviewer of the Division of Undergraduate Studies</u> for Instrumentation and Laboratory Improvement Program. Participant of the reviewing meeting of 1-18-94 to 1-21-94.

1992

38. Member, <u>Committee of Minorities of the American Physical Society</u> 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.

7./8. PROFESSIONALLY RELATED SERVICE AND ADDITIONAL SERVICE

2006

- 1. <u>External Member of Physics Chair Search Committee</u>, University of Texas at San Antonio, November, 2006.
- 2. External reviewer for faculty promotion, University of Colorado, Colorado Springs, August, 2006.
- **3.** <u>Seminar</u>, "Physics of Easter", presented to Heisenberg Club, Universidad de Colima, Colima, Mexico, June 2, 2006.

- **4.** <u>Seminar</u>, "Einstein's Mistakes", presented to Heisenberg Club, Universidad de Colima, Colima, Mexico, Sep. 4, 2005.
- 5. <u>Workshop</u>, "Middle School Physics", delivered to 32 MSP Staff Developers, at UTEP, Dec. 5, 2005.
- 6. <u>Workshop</u>, "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.

- 8. Seminar, "Science studies at UTEP", presented to Juarez Rotary Club, Cd. Juarez, Sep. 23, 2004.
- 9. <u>Seminar</u>, "UTEP's Very Small Array", presented to Heisenberg Club, Universidad de Colima, Colima, Mexico, Jun.4, 2004.

2003

- 10. Seminar, "Física para Kinder", presented to Grupo Abel, ITESM-Cd. Juarez, April 12, 2003.
- 11. <u>Visit</u>, to Universidad Autonoma de Colima, in Colima, Mexico, to promote our M.S. Physics program, with Dr. Tom Brady, November 17-20, 2003.

2001

12. <u>Seminar</u>, "Problemas matemáticos ", presented to Grupo Abel, Universidad Autónoma de Ciudad Juárez, June 2, 2001.

2000

- 13. <u>Participant</u>, "Office of Space Science (OSS) Education/Public Outreach Council", sponsored by NASA/OSS, Galveston, Texas, Tuesday, Dec. 5, 2000.
- 14. <u>Participant</u>, "Block II Perceptions from the Field Experiment at Marian Manor Elementary School" in the All 2000 2nd pete faculty retreat", UTEP's PETE program, El Paso, TX, Nov. 10, 2000.

1999

15. Judge, "UT Brownsville AMP Student Presentations", Univ. of Texas at Brownsville, Brownsville, Texas, 4/9/99.

1998

- **16.** <u>Seminar</u>, "Física Nuclear en el año 2000", at the I Semana de Ciencia Y Tecnologia, organized by Sociedad Mexicana para el Progreso de la Ciencia y la Tecnologia,, at the Universidad Autonoma de Ciudad JuarezJuarez, Mexico, Apr. 20-24, 1998.
- **17.** "Radiacion de Fondo", <u>presentation at the VI Semana de Astronomia</u>, organized by the Sociedad Astronomica de Cd. Juarez, at the Universidad Autonoma de Ciudad Juarez, Mar. 23-27, 1998, Juarez, Mexico.
- **18.** "Fisica Nuclear y de Particulas", interview by Hector Noriega, at Juarez radio show "Civilizaciones", FM 98.3, Dec. 5, 1998. In collaboration with Alfredo Aranda.
- **19.** <u>Participant</u>, of "Foro de Discusion de las Ciencias en Cd. Juarez", Organized by UACJ, at Juarez City Hall, Jun. 18, 1998.
- **20.** "The Physics Circus ", <u>presentation</u>, at the 50th Anniversary of Instituto Tecnologico de Durango, May 14, 1998, Durango, Mexico.
- **21.** <u>How Many Barbers are there in Juarez?</u> discussion session presented to <u>UACJ's Grupo Abel</u>, UACJ, May, 1998.
- 22. "<u>SOMPROCYT Week</u>", <u>Organizer</u>, a week of science and technology talks at Universidad Autonoma de Cd. Juarez, April, 1998.

- **23.** "Radiacion de Fondo", presentation to Juarez's math club "Abel", at the Universidad Autonoma de Ciudad Juarez, Feb. 15, 1997, Juarez, Mexico.
- 24. Group Visit of High School Students and Teachers to UNT Accelerator Facility, U. North Texas, May 1-3, 1997, Denton, Texas.
- **25.** Member of Visiting Committee, to review NSF's Division of Undergraduate Education, Arlington, VA, May 21-23, 1997.
- 26. "Mecanica Cuantica", presentation to middle school teachers from Chihuahua's Department of Education, UTEP, Dec. 6, 1997, Juarez, Mexico.
- **27.** Member, Organizing Committee, Workshop on Physics Education, organized by the National Society of Hispanic Physicists and the Panamerican Association for Physics, held at Instituto Tecnologico y de Estudios Superiores de Monterrey, Monterrey, N.L., Mexico, Sept. 22-24, 1997.

- **28.** "Contact", after-movie discussion at Plaza Juarez Movie Theater, Oct. 25, 1997, co-organized by Sociedad Astronomica Juarense and Universidad Nacional Autonoma de Mexico, Juarez, Mexico.
- **29.** "Science Education and Research in Mexico", lecture presented to UTEP's class POLS 3437: "UG The Politics of Mexico", Dec. 2, 1997.

- 30. Seminar to UTEP's Club Zero, Math. Department, April 5, 1996.
- **31.** <u>Host of NASA's OSS Education Director</u>, Dr. Jeffrey Rosendhal, April 25-26, 1996. Seminar presented by Dr. J. Rosendhal: "Scientists' Role in Education".
- **32.** Attendant, <u>Technical Assistance Workshop for the Eisenhower Program</u>, Texas Higher Education Commission Board, Austin, Texas, June 28, 1996.
- **33.** "Ondas Gravitacionales", presentation a la Sociedad Astronomica de Cd. Juarez, at the <u>Universidad</u> <u>Autonoma de Ciudad Juarez</u>, Dec. 20 1996, Juarez, Mexico.

1995

- **34.** Participant, <u>Workshop on Systemic Reform</u>, sponsored by the American Physical Society, Jan. 9 -12, 1995, Bethesda, MD.
- **35.** Organizer of <u>book and journal donations</u> to the University Autonoma de Ciudad Juarez, with the help of Dr. Jorge Gardea, the American Chemical Society and NMSU. 1995-1996.
- **36.** <u>Host of American Physical Society's Director of Education</u>, Dr. Ramon Lopez, March 16, 1995. Seminar presented by Dr. R. Lopez: "NSF Systemic Reform".
- **37.** Participant, <u>Science Education and Scientific Literacy Conference</u>, Office of Science and technology Policy. UTEP, May 4, 1995.

1993

- **38.** "La Materia Oscura", general audience article published in Alfa Geminis, V, pp. 3-6, 1993, Cd. Juarez, Mexico.
- **39.** "Physics Circus", presented at the 1993 SACNAS Conference, January 1993, Albuquerque, New Mexico.
- **40.** "Energia Nuclear", presentation to high school students at the Instituto Tecnologico y de Estudios Superiores de Monterrey, Cd. Juarez Campus, May 1993.
- **41.** Participant of AP Pretest Program of Educational Testing Service, Princeton, NJ, for Electricity and Magnetism. Spring 1993.
- 42. Participant of HOBY Leadership Seminar, UTEP, 10-7-1993.

1992

- 43. "Nuclear Fragmentation", presented to the Sigma XI society, Nov. 17, 1992, UTEP.
- 44. "Nuclear Fragmentation", presented to Sociedad Astronomica Juarense, Nov. 14, 1992, Univ. Autonoma de Cd. Juarez.
- 45. Seminar, "Nuclear Fragmentation", presented to the Sigma XI society, Nov. 17, 1992, UTEP.
- **46.** Science Presentations, telescope observations, physics demonstrations, etc. Mostly to Eastwood Heights Elementary School, and other schools in the Socorro ISD.

9. AWARDS AND HONORS FOR PROFESSIONAL SERVICE

2003

- 1. <u>Reconocimiento</u>, awarded by the H. Ayuntamiento de Juárez, 12/2003, Cd. Juárez, Chihuahua, México.
- 2. <u>Nominated</u>, By APS Divison of Nuclear Physics to serve on the APS Committee on Careers and Professional Development, September 10, 2003.

2002

- 3. <u>Cátedra Ángel Dacal Alonso</u>, 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.
- 4. <u>Elected</u> Chair, Texas Section of the American Physical Society, elected by vote, from 3/2002 to 3/2003. **2001**
- 5. <u>Elected</u> for member of the Executive Committee of the Forum on International Physics of the American Physical Society, 12/2001.
- 6. Rho-Sigma-Tau Shumaker professorship, awarded by UTEP, 5/2001.
- 7. <u>Elected</u> Vice Chair, Texas Section of the American Physical Society, elected by vote, from 3/2001 to 3/2002, to become chair in 3/2002.

2000

8. <u>Nominated</u> for UTEP's "Distinguished Service to the University/Students Award", 4/2000, not selected.

- 9. <u>Elected</u>, President of the National Society of Hispanic Physicists", 1/2000 to 12/2002.
- 10. "The New College Try", Time Magazine Article describing the S. Blake and J. López reform effort of PSCI 2303, on January 8, 2001, see: http://www.time.com/time/education/article/ 0,8599,93264,00.html.

- 11. Reconocimiento, awarded by the H. Ayuntamiento de Juárez, 12/99, Cd. Juárez, Chihuahua, México...
- 12. Nominated for the "Frontera" Award of the Mascareñas Foundation, by the Sociedad Astronomica Juarense, 9/99, not selected.

1998

13. Elected, President Elect of the National Society of Hispanic Physicists", 1/1998 to 1/2000.

1997

- 14. 1997 Parental Involvement in Science, awarded by Eastwood Heights Elementary School, El Paso, Texas.
- 15. President Elect of the Society of Hispanic Physicists", 1/1/97 to 12/31/97.
- 16. Member of the Executive Board, of the Texas Section of the American Physical Society, Fall 1997. 1996
- 17. 1996 Parental Involvement in Science, awarded by Eastwood Heights Elementary School, El Paso, Texas.

- 18. Candidate for General Councillor of the American Physical Society, Spring 1995. (Luckily) Not elected.
- 19. "PAPF: Society of Hispanic Physicists", Sloan Foundation award of \$29,200 given by the 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.
- 20. Member, Task Force on Science Education and Public Outreach, Office of Space Science, NASA. Attended meetings in Washington, D.C., Annapolis, and Las Cruces from November 95 to May 1996.
- 21. <u>1995 Parental Involvement in Science</u>, awarded by Eastwood Heights Elementary School, El Paso, Texas.