

## Gerardo Muñoz

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### EDUCATION

- Ph.D. The Johns Hopkins University Physics, 1989
- M.A. The Johns Hopkins University Physics, 1984
- B.S. Universidad de Concepción, Chile Physics, 1982

### AFFILIATIONS

- Professor, Department of Physics, California State University, Fresno (CSUF).
- Department Chair (2004-08) Department of Physics, CSUF.
- Lecturer (1991), Department of Physics, Cal Poly State University, San Luis Obispo, CA.
- Instructor, (Summer 1990) School of Continuing Studies, The Johns Hopkins University, Baltimore, MD.

### UNIVERSITY AND PROFESSIONAL SERVICE

- Graduate Coordinator, CSUF Department of Physics (2008 -).
- Graduate Advisor, CSUF Department of Physics (2008 -).
- Graduate Assessment Coordinator, CSUF Department of Physics (2014 -).
- Acting Dean of CSUF College of Science and Mathematics (CSM) on several occasions during 2007-2008.
- CSM committees: ARTPL (retention, tenure and promotion), Research committees.
- 2009-2010 CSUF Computer Science Program Review team member.
- Member, 2008-2009 Five-Year Review of CSUF TLT Director Dr. Linda Harding.
- Member, 2001-2002 Five-Year Review of CSUF Associate Vice President for Grants and Research Dr. Thomas McClanahan.
- Served on Academic Senate as Physics Dept. representative.
- CSUF Library Subcommittee.
- Member, Physics Department TT search committees and Retention, Tenure and Promotion committees; 2012 Tenure-track search committee, Psychology Department; 2008-09 Tenure-track search committee, Math Department.
- Member, College of Science and Mathematics Single Subject committee (review of courses in teacher preparation curriculum).
- Editorial Advisory Board Member, American Journal of Physics (2008 - 2010).
- Reviewer for professional journals: Journal of Physics A, the European Journal of Physics, the American Journal of Physics, International Journal of Modern Physics D, and American Journal of Physics and Optics Communications.
- Chair of ten Project (Phys 298) and MS thesis (Phys 299) committees at CSU Fresno.
- Member, Ph.D. thesis committee, UC Merced.
- Winning Thesis Chair, California State University, Fresno Division of Graduate Studies, May 2008. Thesis by Daniel Tennant, "Scattering of Light in Born-Infeld Electrodynamics" received the university's Outstanding Thesis Award for 2007-2008.

## TEACHING EXPERIENCE

(G: Graduate course; UG: Undergraduate course)

- Phys 299 MS Thesis (G)
- Phys 298 MS Culminating Project (G)
- Phys 290 Independent Study (G)
- Phys 272 General Relativity (G)
- Phys 270 Advanced Mathematical Physics (G)
- Phys 222B Quantum Mechanics II (G)
- Phys 222A Quantum Mechanics I (G)
- Phys 220B Advanced Electricity and Magnetism II (G)
- Phys 220A Advanced Electricity and Magnetism I (G)
- Phys 170A Mathematical Physics (UG)
- Phys 180 Seminar in Physics (UG)
- Phys 90 Independent Study (UG)
- Phys 4A Mechanics and Wave Motion (UG)
- Phys 4B Electricity, Magnetism, and Heat (UG)
- Phys 4AL Laboratory in Mechanics and Wave Motion (UG)
- Phys 4BL Laboratory in Electricity, Magnetism and Heat (UG)
- Phys 2A General Physics (UG)
- Phys 2AL General Physics laboratory (UG)
- PSci 21 Elementary Astronomy (UG)

## SELECTED PUBLICATIONS

- G.M., "Orbits of massless particles in the Schwarzschild metric: Exact solutions", *Am. J. Phys.* **82**, 564 (2014).
- Triyanta, D. Singleton, P. Jones, and G. Muñoz, "Field localization in a modified Randall-Sundrum brane model", *AIP Conference Proceedings* **1617**, 96 (2014).
- R. Y. Chiao, R. Haun, N. Inan, B.-S. Kang, L. A. Martinez, S. J. Minter, G. Muñoz., and D. Singleton, "A Gravitational Aharonov-Bohm Effect, and its Connection to Parametric Oscillators and Gravitational Radiation", in *Quantum Theory: A Two-Time Success Story*, Yakir Aharonov Festschrift. D. Struppa, and J. Tollaksen, eds. (Springer-Verlag Italia 2014).
- P. Jones, G. Muñoz, D. Singleton, and Triyanta, "Field localization and mass generation in an alternative five-dimensional brane model", *Phys Rev. D* **88**, 025048 (2013).
- J. Roveto and G.M., "A Challenge to Entropic Gravity", arXiv:1201.2475[gr-qc] (2012).
- G.M. and P. Jones, "The equivalence principle, uniformly accelerated reference frames, and the uniform gravitational field", *Am. J. Phys.* **78**, 377–383 (2010).
- G.M. and D. Tennant, "Testing string theory via Born-Infeld electrodynamics?", *Phys. Lett. B* **682**, 297–299 (2009).
- P. Jones, G.M., M. Ragsdale, and D. Singleton, "The general relativistic infinite plane", *Am. J. Phys.* **76**, 73–78 (2008).
- G.M. and I. Pavic, "A Hamilton-like vector for the special-relativistic Coulomb problem", *Eur. J. Phys.* **27**, 1007–1018 (2006).

## AWARDS, HONORS

- CSUF Sabbatical Leave Award for Fall 2009
- CSUF Sabbatical Leave Award for Fall 2002
- 2001 Provost Award for Graduate Teaching and Mentoring