

Curriculum Vitae

Thomas D. Gutierrez

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Professional Preparation

- **June 2000**, Ph.D. physics, University of California, Davis.
- **August 1994**, M.S. physics, San Jose State University.
- **June 1991**, B.S. physics, minors in mathematics and music, San Jose State University.

Appointments

- **2004 – present** Visiting Postdoctoral Researcher, Lawrence Berkeley National Laboratory.
- **2002 – 2004** Postdoctoral Researcher, University of California, Davis.
- **2000 – 2002** Postdoctoral Faculty Fellow, University of California, Davis.
- **1994 – 2000** Graduate Student Teaching Assistant, University of California, Davis.
- **1991 – 1994** Research Assistant, Graduate Student Researchers Program, NASA Ames Research Center and San Jose State University.

Awards and Honors

- **2000** Office of the President Faculty Fellowship, University of California, Davis.
- **1995, 1997** Nominated for Outstanding Graduate Student Teaching Award, University of California, Davis.
- **1993** Student Research Competition Finalist, San Jose State University.
- **1993** Frederick N. Fitting Award, School of Science, San Jose State University.
- **1992** Multicultural Awareness Award, School of Science, San Jose State University.
- **1991** NSF Graduate Student Researchers Grant, NASA Ames Research Center and San Jose State University.
- **1989** NSF Research Experience for Undergraduates (REU) Program, San Jose State University.

Selected Publications

A full publication list, including all collaboration publications from STAR and CUORE, available upon request.

1. “Probing the Quantum Nature of the Neutrino with Two-Particle Interferometry,” T.D. Gutierrez, submitted to *Physical Review Letters*, Oct 2005, nucl-th/0510069.
2. “Cuoricino Status and CUORE Prospects,” C. Brofferio *et al.*, *Nucl.Phys.Proc.Suppl.* 145, 268-271 (2005).

3. “Experimental and Theoretical Challenges in the Search for the Quark Gluon Plasma: The STAR Collaboration’s Critical Assessment of the Evidence from RHIC Collisions,” by the STAR Collaboration (J. Adams *et al.*), *Nucl.Phys.* **A757**,102-183 (2005), nucl-ex/0501009.
4. “CUORE: A Cryogenic Underground Observatory for Rare Events,” by the CUORE Collaboration (R. Ardito *et al.*), Jan 2005, CUORE proposal, hep-ex/0501010.
5. “Pion Interferometry in Au+Au Collisions at $\sqrt{s_{NN}} = 200$ GeV,” by the STAR Collaboration (J. Adams *et al.*), *Phys.Rev.* **C71**, 044906 (2005), nucl-ex/0411036
6. “Intensity Interferometry with Anyons,” T.D. Gutierrez, *Phys.Rev.* **A69** 063614 (2004), quant-ph/0308046.
7. “ Ξ^- and Ω Distributions in Hadron-Nucleus Interactions,” R. Vogt, T.D. Gutierrez, *Nucl. Phys.* **A726**, 134 (2003).
8. “Visualizing the Phonon Wave Function,” Scott C. Johnson and Thomas D. Gutierrez, *Am. J. Phys.* **70**, 3 227 (2002).
9. “Asymmetries Between Strange and Antistrange Particle Production in Pion-Proton Interactions,” T.D. Gutierrez, R. Vogt, *Nucl. Phys.* **A705**, 396 (2002).
10. “Doomsday Fears at RHIC,” Thomas D. Gutierrez, *The Skeptical Inquirer, Magazine For Science and Reason* **24**, 3 29 (2000).
11. Young and Freedman *University Physics* (10th Ed.) Instructor’s Solution Manual, Volumes 2 and 3, Thomas D. Gutierrez, Addison Wesley Longman, October 2000.
12. “Higher Twist Contributions to R-Hadron Phenomenology in the Light Gluino Scenario,” T.D. Gutierrez, R. Vogt, J.F. Gunion, University of California, Davis and Lawrence Berkeley National Laboratory, *Nucl. Phys.* **B591**, 277 (2000).
13. “Leading Charm in Hadron-Nucleus Interactions in the Intrinsic Charm Model,” T. Gutierrez and R. Vogt, Lawrence Berkeley National Laboratory and University of California, Davis, *Nucl. Phys.* **B539**, 189 (1999).
14. “An Overview of Isotopic Analysis Using Tunable Diode Laser Spectrometry,” T.B. Sauke, J.F. Becker, M. Loewenstein, T.D. Gutierrez, C.G. Bratton, *Spectroscopy* **9**, 34 (1994).

Selected Presentations and Posters

1. “Cuoricino to CUORE: Neutrinoless Double Beta Decay Measurements with TeO₂ Bolometers,” October 2005, invited talk at the 2nd Joint Meeting of the Nuclear Physics Divisions of the APS and The Physical Society of Japan, Maui, Hawaii.
2. “Probing the Quantum Nature of the Neutrino with Two-Particle Interferometry,” October 2005, talk given at the 2nd Joint Meeting of the Nuclear Physics Divisions of the APS and The Physical Society of Japan, Maui, Hawaii.
3. “Pion Interferometry from pp and dAu Collisions at STAR,” January 2004, poster presented at Quark Matter 2004, Oakland, CA.
4. “Pion Interferometry from pp Collisions at STAR,” October 2003, talk given at the American Physical Society Fall Meeting of the Division of Nuclear Physics, Tuscan, Arizona.

5. "Measuring the Size of Proton-Proton Collisions," November 2002, Sonoma State University as part of their *What Physicists Do* series.
6. "Pion HBT from Proton-Proton Collisions at STAR," October 2002, presented at the American Physical Society Fall Meeting of the Division of Nuclear Physics, Michigan State University, East Lansing.
7. "Pion HBT from Proton-Proton Collisions at STAR," July 2002, poster presented at Quark Matter 2002, Nantes, France.
8. "Pion Phase Space Density in pp Collisions at the SPS," March 2001, American Physical Society California Section Inaugural Spring Meeting, University of California, Irvine.
9. "Pion Phase Space Density in pp Collisions at the SPS," September 2000, department seminar, State University of New York, Stony Brook.
10. "Leading Charm in Hadron-Nucleus Interactions," May 2000, seminar, Lawrence Livermore National Laboratory, Livermore CA.
11. "Leading R-Hadrons," April 2000, April Meeting of the American Physical Society, Long Beach, CA.

Scientific Collaborations and Professional Affiliations

- **2004-present** CUORE and Cuoricino Collaborations; visit the CUORE and Cuoricino websites respectively at <http://crio.mib.infn.it/wig/Cuorepage/CUORE.php> and <http://crio.mib.infn.it/wig/Cuoricinopage/CUORICINO.php>.
- **1995-present** Member of the American Physical Society.
- **2000-2005** STAR Collaboration; see the collaboration website at <http://www.star.bnl.gov/>.