

LAURA CADONATI

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EDUCATION

- Ph.D., Physics, Princeton University 2001
- M.A., Physics, Princeton University 1998
- Laurea in Physics, Università degli Studi di Milano. Graduated with full honors, 1995

RESEARCH INTERESTS

- Gravitational waves
- Solar and supernova neutrinos

RECENT EMPLOYMENT

- **August 2007 - current:** Assistant Professor, University of Massachusetts, Amherst
- **Feb 2005 – August 2007:** Research Scientist with the LIGO Project at MIT
- **Feb 2002 – Jan 2005:** Postdoctoral Research Associate with the LIGO Project at MIT
- **2001–2002:** Postdoctoral Research Associate, Borexino Project, Princeton University
- **Jan–June 2001:** Instructor, Physics Department at Princeton University

TEACHING

- **Spring 2008:** Physics Dept, UMass Amherst – PHY284 (Modern Physics)
- **Fall 2007:** Physics Dept, UMass Amherst - PHY424 (Quantum Mechanics)
- **Spring 2001:** Lecturer, Physics Dept Princeton University PHY104 (E.M.)
- **Spring 1999:** Teaching Assistant, Physics Dept Princeton University PHY103 (Mechanics).
- **Fall 1997:** Teaching Assistant, Physics Dept Princeton University PHY103 (Mechanics).

SELECTED PUBLICATIONS

<http://people.umass.edu/cadonati/publications.html>

GRAVITATIONAL WAVES

- LIGO Scientific Collaboration, “*Implications for the Origin of GRB 070201 from LIGO Observations.*” To appear in Ap.J. Preprint arXiv:0711.1163
- AURIGA and LIGO Scientific Collaboration, “*A Joint Search for Gravitational Wave Bursts with AURIGA and LIGO.*” To appear in Class. Quant. Grav. Preprint arXiv:0710.0497
- LIGO Scientific Collaboration, “*Search for gravitational-wave bursts in LIGO data from the fourth LSC science run.*” Class. Quantum Grav. 24 (2007) 5343-5369
- LIGO Scientific Collaboration, “*Search for gravitational waves from binary black-hole inspirals in LIGO data.*” Phys. Rev. D 73 (2006) 062001
- L. Cadonati et al. “*The AURIGA-LIGO Joint Burst Search*” – Class. Quantum Grav 22 (2005) S1337-S1247

- L. Cadonati, Sz. Marka “*CorrPower: a cross-correlation based algorithm for triggered and untriggered gravitational-wave burst searches*” – Class. Quantum Grav 22 (2005) S1159-S1167
- L. Cadonati “*Coherent Waveform Consistency Test for LIGO Burst Candidates*” – Class. Quantum Grav. 21 (2004) S1695-S1703
- L. Cadonati “*Listening to Space with LIGO.*” State of the Universe 2007 - New Images, Discoveries, and Events, 2006 Springer Praxis Books, Popular Astronomy Series. Edited by Ratcliffe M. ISBN: 0-387-34178-1

NEUTRINOS

- J. Benziger et al, “*The Nylon Scintillator Containment Vessel for the Borexino Solar Neutrino Experiment.*” to appear in Nucl Instr Meth A. Preprint arXiv:physics/0702162
- L. Cadonati, “*The Borexino Solar Neutrino Experiment and its Scintillator Containment Vessel.*” Ph.D. Thesis, Princeton University. Jan. 2001.
- C. Galbiati et al, “*Cosmogenic ^{11}C production and sensitivity of organic scintillator detectors to pep and CNO neutrinos.*” Phys. Rev. C 71 (2005) 055805
- Borexino Collaboration, “*Measurements of extremely low levels of radioactivity in Borexino.*” Astroparticle Physics, 18 (2002) 1.
- L. Cadonati, F.P. Calaprice and M.C. Chen. “*Supernova Neutrino Detection in Borexino.*” Astroparticle Physics, 16 (2002) 361.
- Borexino Collaboration. “*Science and Technology of BOREXINO: a real-time Detector for Low Energy Solar Neutrinos.*” Astroparticle Physics, 16 (2002) 205.
- Borexino Collaboration. “*Ultra-low background measurements in a large volume underground detector.*” Astroparticle Physics, 8 (1998) 141.

RECENT INVITED TALKS, SEMINARS AND LECTURES

<http://people.umass.edu/cadonati/talks.html>

- “*Status of the search for gravitational waves with LIGO.*” 2007 – Legnaro Laboratory, INFN (Italy)
- “*Exploring the gravitational wave sky with LIGO.*” 2007 – Nuclear Physics Seminars, Indiana University cyclotron in Bloomington
- “*Panning for gravitational gold.*” 2007 – Particle Physics seminar series, Columbia U.
- “*Data analysis techniques for LIGO*” – Lecture series for graduate students, University of Trento (Italy)
- “*Exploring the gravitational wave sky with LIGO.*” COSMO 2006 Lake Tahoe, VA
- “*Astrophysical sources, analysis methods and current results in LIGO's quest for gravitational waves.*” SESAPS 2006 Williamsburg, VA
- “*Observational results from the LIGO second science run.*” 2005 Frontiers in Contemporary Physics III, Vanderbilt University, Nashville TN
- “*Gravitational wave burst search in LIGO: methods and results.*” Astrophysics seminar series, Louisiana State University, Baton Rouge, LA, Feb 1, 2005
- “*Gravitational waves and LIGO.*” Lecture at the Gran-Sasso/Princeton summer school for Italian students Princeton, NJ Aug 9, 2004
- “*The LIGO Project: status report.*” 2003 Advanced School and Conference on Sources of Gravitational Waves, 2003, Miramare (Trieste, Italy)