

MELISSA S. RICE

Office Phone: 607-255-4709
Cell Phone: 607-379-9027
FAX: 607-255-6918
Email: mrice@astro.cornell.edu

Department of Astronomy
Cornell University
406 Space Sciences Building
Ithaca, New York 14853

EDUCATION

- B.A. Wellesley College, Astrophysics (cum laude), December 2004
Advisor: Prof. Richard French
- Ph.D. Cornell University, Astronomy (expected 2011)
Thesis adviser: Prof. Jim F. Bell III

PROFESSIONAL EMPLOYMENT

- Fall 2002-Fall 2004 **Wellesley College Physics Department**, Wellesley, MA
Teaching assistant and tutor for introductory physics courses.
Supervisor: Prof. Glenn Stark
- Fall 2002-Fall 2004 **Wellesley College Whitin Observatory**, Wellesley, MA
Telescope operator for the 24-inch Schmidt-Cassegrain reflector. Duties involved calibrating the telescope and observing Koronis family asteroids for faculty research.
Supervisor: Prof. Kim McLeod
- Summer 2003 **University of Alaska Geophysical Institute**, Fairbanks, AK
NSF REU Intern in the Space Physics and Aeronomy group.
Supervisor: Dr. Scott Bailey
- Spring 2004 **Cerro Tololo Interamerican Observatory**, La Serena, CHILE
NSF REU Intern. Modeled the 3-D photoionization of planetary nebulae.
Supervisor: Dr. Hugo Schwarz
- April-June 2004 **Wellesley College Astronomy Department**, Wellesley, MA
NASA Space Grant Intern. Studied host galaxies of high redshift quasars.
Supervisor: Dr. Kim McLeod
- Summer 2004 **NAIC Arecibo Observatory**, Arecibo, PR
NSF REU Intern. Mapped ice features on Mercury using planetary radar.
Supervisor: Dr. John Harmon
- February-June 2005 **Harvard-Smithsonian Center for Astrophysics**, Cambridge, MA
Research Assistant. Studied gas kinematics in active galaxies.
Supervisor: Dr. Paul Martini
- Summer 2005 **NASA Ames Research Center**, Moffett Field, CA
NASA Space Grant Intern. Worked with giant planet formation models.
Supervisors: Dr. Jack Lissauer and Dr. Olenka Hubickyj
- October-Nov. 2005 **NAI High Lakes 2005 Expedition**, BOLIVIA
Team member. Assisted studies of UV damage to microorganisms at high altitude.
Supervisor: Dr. Nathalie Cabrol
- Summer 2006 **Haughton Mars Project**, Devon Island, CANADA
Field Research Assistant. Studied paraglacial landforms as analogs to Martian terrain.
Supervisor: Dr. Pascal Lee
- August 2006-Present **Cornell University Department of Astronomy**, Ithaca, NY
Teaching Assistant for Astronomy 101, 102, 202 and 233.
Supervisors: Prof. James Lloyd, Prof. Jean-Luc Margot

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ACADEMIC HONORS

Wellesley College (2000-2004)

Three Generations Prize for Science Writing (2004)

Charles Duncan Prize in Astronomy (2004)

Massachusetts Space Grant award to support an internship at NASA Ames (Summer 2005)

Susan R. Knafel '52 Traveling Fellowship to study Mars analogs (2005-2006)

PUBLICATIONS

Rice, M., P. Martini, J. Greene, R. Pogge, J. Shields, J. Mulchaey, M. Regan, The Spatial Scaling of Gas Kinematics in Active Galaxies. *Astrophysical Journal*, 636, 2, 2006.

Harmon, J., M. Slade, B. Butler, J. Head, M. Rice, D. Campbell, Mercury: Radar Images of the Equatorial and Midlatitude Zones, *Icarus*, 187, 2, 2007.

Johnson, J., J. Bell, E. Cloutis, M. Staid, W. Farrand, M. Rice, A. Wang, A. Yen, Mineralogic Constraints on Sulfur-Rich Soils from Pancam Spectra at Gusev Crater, Mars, *Earth and Planetary Science Letters*, 2007.

Bell, J.F. III, M. Rice, J. Johnson, T. Hare, Surface Albedo Observations at Gusev Crater and Meridiani Planum, Mars, submitted to *Journal of Geophysical Research*, 2007.

CONFERENCES ATTENDED

Rice, M., S. Bailey, Nitric Oxide and Photoelectron Production in the Earth's Upper Atmosphere, *Keck Northeast Astronomy Consortium Undergraduate Research Symposium*, Wellesley, MA, 24-25 October 2003.

Rice, M., J. Harmon, Radar Imaging of Mercury. *36th Annual DPS Meeting*, Louisville, KY, 8-12 November 2004.

Zahid, J., M. DeCesar, L. Kinnaman, M. Rice, K. Saucedo-McQuade, T. Ghosh, E. Momjian, C. Salter, Neutral Hydrogen in the Galaxy Cluster Abell 2390. *205th Meeting of the American Astronomical Society*, San Diego, CA, 9-13 January 2005.

Rice, M., H. Schwarz, H. Monteiro, 3D Photoionization of the Planetary Nebula Hb5. *205th Meeting of the American Astronomical Society*, San Diego, CA, 9-13 January 2005.

Rice, M., O. Hubickyj, Visualizations of the Properties of a Growing Giant Planet, *37th Annual DPS Meeting*, Cambridge, U.K., 5-9 September 2005.

Desportes, C., M. Rice, P. Lee, Periglacial Polygon Fields on Devon Island, High Arctic, as Possible Analogs for High-Latitude Polygonal Terrain on Mars: Implications for Phoenix, *Lunar and Planetary Science XXXVIII*, League City, TX, 12-16 March 2007.

Rice, M., J.F. Bell III, J. Johnson, T. Hare, Surface Albedo Observations at Gusev Crater and Meridiani Planum, Mars, *7th Int'l Conference on Mars*, Pasadena, CA, 9-13 July 2007.

LEADERSHIP ROLES & OUTREACH

Cornell University (2006-present)

Focus for Teens Workshop Leader (2007)

Cornell Chronicle Science Writing Intern (2007-present)

Ask an Astronomer Team Member, (2007-present)

Organizer of a new graduate course (COMM 565: Science Communication) through Cornell University's Communication Department (Spring 2008)

Science and math tutor at Lansing Residential Center, a detention center for girls (2008-present)

AFFILIATIONS

Cornell University (2006-present)

American Astronomical Society, Junior Member (2004-present)

Cornell University Astronomy Graduate Network, Member (2006-present)

Graduate Women in Physics, Member (2006-present)

Geologic Society of America, Student Member (2007-present)

Planetary Society, Member (2007-present)