

## Curriculum Vitæ: Althea Valkyrie Moorhead

---

Department of Astronomy  
University of Florida  
211 Bryant Space Science Center  
PO Box 112055  
Gainesville, FL, 32611-2055  
U.S.A.

altheam@astro.ufl.edu  
www.astro.ufl.edu/~altheam/

### Education:

University of Michigan, Ann Arbor, Michigan, 2003-2008  
Ph.D., Physics  
*Adviser: Fred C. Adams*

University of Arizona, Tucson, Arizona, 1999-2003  
B.S., Physics and Mathematics

### Honors, Awards, and Fellowships:

Student Stipend Award, AAS:DDA, Boulder, Colorado, 2008.

Sigma Pi Sigma Honor Society. Inducted April 30, 2007.

Poster Award, Kobe International School of Planetary Sciences, Hyogo, Japan, 2005.

Honorable Mention, NSF Graduate Research Fellowship, 2005.

First-Year Fellowship, Department of Physics, University of Michigan, Fall 2003-Spring.

Richard Pierce Memorial Scholarship, Department of Physics, University of Arizona, 2002.

Galileo Circle Scholarship, College of Science, University of Arizona, 2001.

George-Gregson Science Scholarship, Department of Physics, University of Arizona, 2000.

National Merit Finalist, 1999.

### Publications in Refereed Journals:

Althea V. Moorhead & Fred C. Adams, 2005. "Eccentricity evolution of giant planet orbits due to circumstellar disk torques." *Icarus*, 193, 475 – 484.

Althea V. Moorhead & Fred C. Adams, 2005. "Giant planet migration through the action of disk torques and planet-planet scattering." *Icarus*, 178, 517 – 539.

### Publications in Conference Proceedings and Notes:

Acosta, D. et al., 2003. "Search for First-Generation Leptoquarks in the Jets and Missing Transverse Energy Topology." *CDF/ANAL/EXOTIC/CDFR/6383*.

Bjorkman, J.E. & Moorhead, A.V., 2000. "Multiple Critical Points and Solutions for Rotating Line-Driven Stellar Winds." *BAAS*, 32, 1407.

**Presentations and Workshops:**

Talk: Evolution of giant planet orbits in a turbulent circumstellar disk. AAS:DDA, Boulder, Colorado, April 2008.

Poster: Eccentricity evolution of giant planet orbits due to circumstellar disk torques. Gordon Research Conference, Mount Holyoke College, July 2007.

Poster and School: Eccentricity evolution of giant planet orbits due to circumstellar disk torques. The detection, formation, evolution and dynamics of planetary systems, Sabhal Mor Ostaig, Isle of Skye, United Kingdom, May-June 2007.

Talk: Eccentricity evolution of giant planet orbits due to circumstellar disk torques. AAS:DDA, Ann Arbor, Michigan, May 2007.

Talk: Solar System Dynamics and the Extrasolar Planets. Invited Talk, Hillsdale College, Hillsdale, Michigan, April 2007.

Poster: Eccentricity evolution of giant planet orbits due to circumstellar disk torques. The Planet-Disc Connection conference, IoA, Cambridge, UK, July 2006.

Talk and Workshop: Eccentricity evolution of giant planet orbits due to circumstellar disk torques. The Western Disks Workshop, London, Ontario, May 2006.

Poster: Giant planet migration through disk torques and planet-planet scattering. Planet-formation theory and low-mass-star observation, Kobe University, Kobe, Japan, July 2005.

Poster and School: Giant planet migration through disk torques and planet-planet scattering. Kobe International School of Planetary Sciences, Hyogo, Japan, July 2005.

**Research Experience:**

Astrophysics Research at the University of Michigan, Ann Arbor, Michigan, under the direction of Fred Adams. Summer of 2003 - Spring 2008.

Astrophysics Research at the University of Arizona, Tucson, Arizona, under the direction of Dave Arnett. Fall of 2001 - Spring of 2003.

Experimental Particle Physics Research at the University of Florida, Gainesville, Florida, under the direction of Darin Acosta. Summer of 2002.

Astrophysics Research at the University of Toledo, Toledo, Ohio, under the direction of Jon Bjorkman. Summer of 2000, Summer of 2001.

Biophysics Research at Texas Tech University, Lubbock, Texas, under the direction of Kelvin Cheng. Summer of 1998.

**Teaching Experience:**

Graduate Student Instructor for Astronomy 160: Introduction to Astrophysics, University of Michigan, Winter 2007. Materials I developed for this course remain in use at the University of Michigan as of Winter 2008.

Graduate Student Instructor for Astronomy 102: Introductory Astronomy: Stars and the Universe, University of Michigan, Fall 2006.

Physics Tutor, Physics Help Room, University of Michigan, Fall 2003 - Winter 2004, Winter 2005.

Graduate Student Instructor for Physics 141: Introductory Mechanics Laboratory, University of Michigan, Winter 2005.

Graduate Student Instructor for Physics 241: Introductory Electricity and Magnetism Laboratory, University of Michigan, Fall 2003 - Winter 2004.

Tutor for Physics and Mathematics, University Learning Center, University of Arizona, Fall 2001 - Spring 2003.

**Outreach:**

Forsythe Middle School Science Fair Judge: February, 2007 - present. I served as a judge for this science fair, and am currently working with the middle school to develop an improved scoring rubric for future fairs.

Michigan Mentorships: Summer 2005. I mentored a high school junior considering a career in physics. We spent eight contact hours discussing the daily life of a graduate student and researcher as well as the necessary steps to achieve such a career.