

Dr. Erica Rodgers
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Education

- 2007 Ph. D., Space Physics, University of Alaska Fairbanks
Dissertation: Solar Flare Soft X-ray Irradiance and its Impact of Earth's Upper Atmosphere
- 2000 M. S., Aerospace Engineering, University of Colorado
- 1998 B. S., Aerospace Engineering, University of Colorado, Dean's List
Minor in Astrophysical, Planetary, and Atmospheric Sciences

Professional Experience

- 2011-13 Research Scientist, Space Science Institute, Boulder, Colorado
- 2009-11 Postdoctoral Researcher, Space Science Institute, *Probing the Evolution of Dust Grains through Detailed Modeling of Nearby YSOs*
- 2010-11 Assistant Visiting Professor, Department of Physics & Astronomy, Benedictine College, Atchison, Kansas
- 2009 Assistant Adjunct Faculty, Embry-Riddle Aeronautical University, Glendale, Arizona
- 2009 Instructor, Arizona State University, School of Earth and Space Exploration, Tempe, Arizona
- 2008-09 Adjunct Astronomy Faculty, Estrella Mountain Community College, Division of Mathematics, Physics and Engineering, Avondale, Arizona
- 2002-08 Graduate Research Assistant, Geophysical Institute, Fairbanks, Alaska
- 2001-03 Satellite Mission Operations Shift Manager, Space Mark International (2003), Lockheed Martin (2001-2002), NOAA Fairbanks Command & Data Acquisition Station, Alaska
- 2000-01 Aerospace Systems Engineer, Spectrum Astro (now General Dynamics), Gilbert, Arizona
- 1994-00 Graduate and Undergraduate Research Assistant, Laboratory for Atmospheric and Space Physics, Boulder, Colorado

Research Efforts

- 2011-2013 PI of Hubble Space Telescope (HST) Archive Research Grant. Perform data analysis and modeling of circumstellar disks and envelopes surrounding young stellar objects in the Taurus-Auriga star forming region utilizing 3-D radiative transfer models and observations of HST NICMOS high-resolution imaging and polarimetry data. Various dust grain populations are analyzed to investigate grain growth during the the transition from a disk+envelope system to a disk+star system.

- 2002-2004 Lead Student Scientist, Avalanche Photodiode X-ray Spectrometer, NASA sounding rocket 36.217 (launched 2004).
- 1998-2000 Lead Student Scientist and Engineer, XUV Photometer System, NASA *TIMED-SEE* satellite (launched 2001) and NASA sounding rocket 36.171 (launched 1998)
- 1994-1998 Lead Student Scientist and Engineer, Solar X-ray Photometer, NASA *SNOE* satellite (launched 1998)

Honors and Awards

- 2011 NASA Group Achievement Award, TIMED-SEE Mission
- 2004-2007 Fellow, NASA Graduate Student Researchers Program
- 2006 American Geophysical Union Outstanding Student Paper Award
- 2002 Lockheed Martin Special Recognition Award

Education Public Outreach

- Developed and continue to initiate multiple space science educational outreach programs
- Instructor of space science and sounding rockets to elementary, middle and high school students
- Instructor of museum docents on the science of satellite mission operations
- Tutor of astronomy, physics and math

Memberships

- Experimental Aircraft Association
- Sigma Pi Sigma, National Physics Honor Society
- American Astronomical Society

Selected Publications

- 2013 **Rodgers, E.M.**, A.S. Cotera, B.A. Whitney, & T.P. Robitaille, in preparation.
- 2009 **Rodgers, E.M.**, Bailey, S.M., Warren, H.P., Woods, T.N. & F.G. Eparvier, Nitric Oxide Density Enhancements due to Solar Flares, *Advances in Space Research*, 45, 28-38
- 2006 **Rodgers, E.M.**, S.M. Bailey, H.P. Warren, T.N. Woods, & F.G. Eparvier, Soft X-ray irradiances during solar flares observed by TIMED-SEE, *Journal of Geophysical Research*, 111, A10S13
- 2005 Bailey S. M., **E. M. Rodgers**, T. M. Garcia, K. Abnett, R. H. Ruhkick, J. Helmericks, & S. Hill, Avalanche photodiode measurements of the solar soft x-ray irradiance, *SPIE Proceedings*, 5901, 84-92
- 1999 Woods, T.N., **E.M. Rodgers**, S.M. Bailey, F.G. Eparvier & G. Ucker, TIMED Solar EUV Experiment: pre-flight calibration results for the XUV Photometer System, *SPIE Proceedings*, 3756, 255-264