

Jordan Rozum

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Last Updated: 04/16/2013

Education

USU Majors: Math and Physics, degree expected May 2014

Current USU GPA: 3.8

Physics GPA: 4.0

Major Coursework

Physics:

- Completed: General Physics I and II, Modern Physics II, Computer Methods in Physics, Modern Physics I, Electromagnetism I and II, Classical Mechanics, Optics I and Intermediate Lab
- Current Semester: Thermal Physics, Advanced Lab, Wave Phenomena

Math:

- Completed: Calculus I, II, and III, Trigonometry, AP Statistics, Linear Algebra, Discrete Math, Differential Equations, Foundations of Analysis, Algebraic Structures, Analysis I and Theory of Linear Algebra
- Current Semester: Analysis II and Complex Variables

Publications and Presentations

"Observational Bias as an Explanation for Distributions of Galaxy Inclination Angles". Jordan C. Rozum, Matt Garlock, Shane L. Larson, Bradley W. Carroll. APS, Four Corners Section, Tuscon, Oct. 21, 2011.

"Comparison of SABER OH Measurements to Rocket Photometry Data". Jordan C. Rozum, Gene A. Ware. Talk given at Utah Academy of Science, Arts, and Letters Conference, Logan, UT, Apr. 13, 2012 and poster presented at Space Grant Fellowship Symposium, Logan, UT, May 9, 2012.

"Modeling Spiral Galaxy Luminosity Profiles". Jordan C. Rozum, Matt Garlock, Shane L. Larson, Bradley W. Carroll. APS, Four Corners Section, Socorro, NM, Oct. 26, 2012.

"Multiple Peaks in SABER Mesospheric OH Emission Altitude Profiles". Jordan C. Rozum, Gene A. Ware, Doran J. Baker, Martin G. Mlynczak, James Russell. AGU Fall Meeting, San Francisco, CA, Dec. 4, 2012.

"Modeling Spiral Galaxy Surface Luminosity to Explain Non-Uniform Inclination Distributions". Jordan C. Rozum and Shane L. Larson. Presented at SPS Zone 15 Spring Meeting, March 16 2013.

"Modeling Spiral Galaxy Surface Luminosity to Explain Non-Uniform Inclination Distributions". Jordan C. Rozum and Shane L. Larson. Talk given at USU Student Showcase, April 11, 2013.

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Honors, Awards, and Achievements

USU Presidential Scholar

USU Undergraduate Research Fellow

USU Dean's List Award for Outstanding Scholastic Achievements, 2011

USU A-Pin Award for Consecutive 4.0 Semesters, 2010-2012

Barry M. Goldwater Scholarship Honorable Mention, 2012

Barry M. Goldwater Scholar, 2013

Skills

Proficient in C++ and MATLAB, basic skills in C, HTML, Maple, and Python

Proficient in all major operating systems (Windows, Mac, UNIX, GNU/Linux) in either a graphical or text environment

Experience with gnuplot, an advanced plotting tool

Practiced in LaTeX

Research Areas

Galactic modeling and population statistics

Mesospheric hydroxyl airglow physics

Research/Work Experience

Working under Dr. Shane Larson (Utah State University) researching bias in galaxy catalogs due to galaxy geometry since Sep. 2010 as part of USU's Undergraduate Research Fellowship. Write galactic models in C++ to examine galaxy surface brightness

Working under Dr. Gene Ware (Brigham Young University) and Dr. Doran Baker (Utah State University) on data validation for the SABER (Sounding of the Atmosphere using Broadband Emission Radiometry) instrument aboard the TIMED (Thermosphere Ionosphere Mesosphere Energetics and Dynamics) satellite since Apr. 2011. Write programs to analyze data from SABER, and maintain the USU copy of the database. Focus is on perceived bifurcation of hydroxyl airglow layer in the mesosphere.

Working under Dr. Bela Fejer (Utah State University) as an undergraduate teaching fellow since Sep. 2012. Hold review/tutoring sessions and provide homework help for undergraduate Electromagnetism I and II courses.