

**Education**

- University of California, Davis** 2012 → Present  
 M.S. in Physics — December 2013  
 Ph.D in Physics — expected 2016/2017
- University of Miami**, Coral Gables, FL 2008 → 2012  
 B.S. in Physics, Applied Mathematics. *Cum Laude*

**Research**

- Department of Physics, **University of California, Davis**  
*Graduate Student Researcher* June 2013 → Present  
**Advisor:** Prof. John Rundle
- Developing the Virtual California earthquake simulator, analyzing large data sets
  - Developing python modules for simulation data analysis, visualization and a web-based interface to the simulation data and analysis tools
- Department of Astronomy, **California Institute of Technology**, Pasadena, CA  
*Summer Undergraduate Research Fellow* Summer 2011  
**Advisor:** Dr. Brendan Crill, NASA JPL
- Updated and expanded the data analysis pipeline for the Planck collaboration
  - Identified correlations between detector model parameters using the D.O.E.'s supercomputing center NERSC
- Department of Physics, **University of Miami**  
*Research Assistant* 2009 → 2012  
**Advisor:** Prof. Kevin Huffenberger
- Reconstructed the optical properties of a Cosmic Microwave Background telescope (WMAP) from its measured radiation maps
  - Identified a selection bias in the WMAP point source catalog

**Published Research**

- K. W. Schultz**, M. K. Sachs, E. M. Heien, J. B. Rundle, D. L. Turcotte, and A. Donnellan. *Simulating gravity changes in topologically realistic driven earthquake fault systems: First results*. Pure and Applied Geophysics, doi: 10.1007/s00024-014-0926-4, in press (2014)
- Schultz, K.W.**, Huffenberger, K.M. *Stacking catalogue sources in WMAP data*. Monthly Notices of the Royal Astronomical Society, Volume 424, Issue 4, pp. 3028-3036 (2012)

**Conferences & Talks**

- (abstract accepted) **K. W. Schultz**, M. K. Sachs, E. M. Heien, J. B. Rundle, J. Fernandez, D. L. Turcotte, A. Donnellan. **talk:** *Virtual California: Earthquake Statistics, Surface Deformation Patterns, Surface Gravity Changes and InSAR Interferograms for Arbitrary Fault Geometries* American Geophysical Union (AGU) Fall Meeting 2014, San Francisco, CA. Dec 2014
- K. W. Schultz**, M. K. Sachs, E. M. Heien, J. B. Rundle, J. Fernandez, D. L. Turcotte, A. Donnellan. **poster:** *Virtual California: Earthquake Statistics, Surface Deformation Patterns, Surface Gravity Changes and InSAR Interferograms for Arbitrary Fault Geometries* Southern California Earthquake Center (SCEC) Meeting 2014, Palm Springs, CA. Sep 2014

- K. W. Schultz**, J. B. Rundle, M. K. Sachs, K. F. Tiampo, T. J. Hayes, J. Fernandez, D. L. Turcotte, A. Donnellan. **talk:** *Monitoring Major Fault Systems from Space: Modeling Implications for Dedicated Gravity Missions*  
GENAH Conference. **Matsushima, Japan.** July 2014
- Multi-Hazards Summer School:** 1 week workshop hosted by IRIDeS at Tohoku University and by the Association of Pacific Rim Universities (APRU). **Sendai, Japan.** July 2014
- K. W. Schultz**, B. Crill, **talk:** *Separating Planck Bolometers and Beams via Simulated Planet Observations*, Summer Undergraduate Research (SURF) Final Presentations  
California Institute of Technology, Pasadena, CA, August 2011.
- K. W. Schultz**, K.M. Huffenberger, **poster:** *Stacking Catalog Sources in WMAP Data*, 217th Meeting of the American Astronomical Society. Seattle, WA, January 2011.

#### Teaching & Tutoring

- Department of Physics, **University of California, Davis**  
*Teaching Assistant* 2012 → 2013  
Led 3 discussion labs of over 30 students each, covering introductory physics
- Department of Biology, **Barry University**, Miami Shores, FL  
*RISE tutor* 2012  
Tutored students in calculus and calculus-based physics
- Department of Physics, **University of Miami**  
*Physics Lab tutor* 2011 → 2012  
Helped students with a range of undergraduate physics courses
- Department of Mathematics, **University of Miami**  
*Math Lab tutor* 2009 → 2010  
Helped students with calculus, differential equations, linear algebra

#### Computing Skills

- Languages:** Proficient in Python, R, C++, L<sup>A</sup>T<sub>E</sub>X, Bash. Experience with HTML, Mathematica, Java
- Modules & Libraries:** Proficient with Git.
- Operating Systems:** Mac OS X, Linux, Windows

#### Honors & Awards

- Member, Omicron Delta Kappa 2011  
One of the highest collegiate honors along with Phi Kappa Phi and Phi Beta Kappa
- Isaac Bashevis Singer Scholarship 2008 → 2012  
Full academic scholarship to the University of Miami (UM), 30 annually.
- Foote Fellow 2008 → 2012  
Highest academic honor at UM, fellows freely design their curriculum, 50 annually
- NSF CSMS Scholarship 2010  
NSF Computer Science and Mathematics for Scientists, 5 annually at UM
- Beyond the Book Scholarship 2010  
Supported summer research, UM College of Arts and Sciences, 12 annually
- National Ocean Scholarship 2008 → 2010  
Awarded by the Consortium for Ocean Leadership, 4 annually