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| Education | University of California, Davis | 2012 → Present |
| | M.S. in Physics — Dec 2013 Ph.D in Physics — 2016, expected | |
| | University of Miami , Coral Gables, FL | 2008 → 2012 |
| | B.S. in Physics, Applied Mathematics. <i>Cum Laude</i> | |
| Research | Department of Physics, University of California, Davis | |
| | <i>Graduate Student Researcher</i> Advisor: Prof. John Rundle | June 2013 → Present |
| | <ul style="list-style-type: none">• Lead programmer and technical lead on the NASA-funded Virtual Quake project, a high performance earthquake simulator used for seismic hazard assessment• Developing computational infrastructure for generating catalogs of observable seismic surface patterns as well as earthquake and tsunami scenario catalogs• Developing and implementing computational tools for simulation data analysis, diagnostic tools and visualization• Added over 17,500 lines to the Virtual Quake source code: [github.com/geodynamics/vq/graphs] | |
| | Department of Astronomy, California Institute of Technology , Pasadena, CA | |
| | <i>Summer Undergraduate Research Fellow</i> Advisor: Dr. Brendan Crill, NASA JPL | Summer 2011 |
| | <ul style="list-style-type: none">• 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 | |
| | <i>Research Assistant</i> Advisor: Prof. Kevin Huffenberger | 2009 → 2012 |
| | <ul style="list-style-type: none">• Reconstructed the optical properties of a Cosmic Microwave Background telescope (WMAP) from observational data; identified a selection bias in the WMAP point source catalog | |
| Published Research | K. W. Schultz , M. R. Yoder, J. M. Wilson, E. M. Heien, M. K. Sachs, J. B. Rundle, and D. L. Turcotte. Parametrizing Physics-Based Earthquake Simulations , Pure and Applied Geophysics, <i>under review</i> 2016 | |
| | J. M. Wilson, M. R. Yoder, J. B. Rundle, D. L. Turcotte, and K. W. Schultz , Spatial Evaluation and Verification of Earthquake Simulators , Pure and Applied Geophysics, <i>accepted</i> (2016) | |
| | K. W. Schultz , E. M. Heien, M. K. Sachs, J. M. Wilson, M. R. Yoder, J. B. Rundle, and D. L. Turcotte. Virtual Quake User Manual, Version 2.1.2 . Computational Infrastructure for Geodynamics, Davis, California, USA, 2016. https://geodynamics.org/cig/software/vq/vq_manual.2.1.2.pdf | |
| | K. W. Schultz , M. K. Sachs, E. M. Heien, M. R. Yoder, J. B. Rundle, D. L. Turcotte, and A. Donnellan, Virtual Quake: Statistics, Co-Seismic Deformations and Gravity Changes for Driven Earthquake Fault Systems , International Association of Geodesy Symposia, <i>in press</i> (2015), DOI: 10.1007/1345_2015_134 | |
| | M. R. Yoder, K. W. Schultz , E. M. Heien, J. B. Rundle, D. L. Turcotte, J. W. Parker and A. Donnellan. The Virtual Quake earthquake simulator: A simulation based forecast of the El Mayor-Cucapah region and evidence of earthquake predictability , Geophysical Journal International, 2015 203 (3): 1587-1604, DOI: 10.1093/gji/ggv320 | |
| | M. R. Yoder, K. W. Schultz , E. M. Heien, J. B. Rundle, D. L. Turcotte, J. W. Parker and A. Donnellan. Forecasting earthquakes with the Virtual Quake simulator: Regional and fault-partitioned catalogs , International Association of Geodesy Symposia, <i>under review</i> (2015) | |

- K.W. Schultz**, M.K. Sachs, J.B. Rundle, D.L. Turcotte
Simulating Gravity Changes in Topologically Realistic Driven Earthquake Fault Systems,
 Pure and Applied Geophysics, DOI: 10.1007/s00024-014-0926-4, *in press* (2014)
- K. W. Schultz** and K. M. Hufenberger,
Stacking catalogue sources in WMAP data. Monthly Notices of the Royal Astronomical Society,
 Volume 424, Issue 4, pp. 3028-3036 (2012)

Conferences & Talks

- K. W. Schultz**, M. K. Sachs, E. M. Heien, M.R. Yoder, J. B. Rundle, D. L. Turcotte, A. Donnellan. **oral**:
*Scenario Earthquake and Tsunami Simulations for a Pacific Rim GNSS Tsunami Early Warning
 System: First Results*
 9th Meeting of the APEC Cooperation for Earthquake Simulation, **Chengdu, China**. 2015
- K. W. Schultz**, M. K. Sachs, E. M. Heien, M.R. Yoder, J. B. Rundle, D. L. Turcotte, A. Donnellan.
poster: *Virtual Quake: The Software Formerly Known as Virtual California*
 Seismological Society of America (SSA) Meeting 2015, Pasadena, CA. 2015
- K. W. Schultz**, M. K. Sachs, E. M. Heien, J. B. Rundle, J. Fernandez, D. L. Turcotte, A. Donnellan. **talk**:
*Virtual Quake: Earthquake Statistics, Surface Deformation Patterns, Surface Gravity Changes and In-
 SAR Interferograms for Arbitrary Fault Geometries (won an Outstanding Student Presentation
 Award)*, American Geophysical Union (AGU) Fall Meeting 2014, San Francisco, CA, 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**. 2014
- Multi-Hazards Summer School**: 1 week workshop on disaster prediction, preparedness, and response
 hosted by IRIDeS at Tohoku University and by the Association of Pacific Rim Universities (APRU).
Sendai, Japan. 2014

Teaching & Tutoring

- Teaching Assistant, Department of Physics, **University of California, Davis** 2012 → 2013
- Physics & Math tutor, Department of Biology, **Barry University**, Miami Shores, FL 2012
- Physics tutor, Department of Physics, **University of Miami** 2011 → 2012

Honors & Awards

- UC Davis Graduate Student Travel Award (\$1000) 2015
- Winner** of an Outstanding Student Paper Award in Natural Hazards 2014
 Awarded to top 3-5% of presenters in each section at the American Geophysical Union 2014 meeting
- 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.
- Footnote 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 in the U.S. annually

Computing Skills

- Languages**: Python, C++, R, L^AT_EX, Bash. Experience with: SQL, HTML, SWIG, Java
- Modules & Libraries**: GitHub source control, Matplotlib, Numpy, Scipy

Study Abroad

- Summer 2009**: ACC Summer Study Abroad in China and Vietnam.
 Studied environmental science, policy, and toxicology at:
- **South China Agricultural University**, Guangzhou, China.
 - **Yunnan University**, Kunming, China.
 - **Hanoi University of Mining and Geology**, Hanoi, Vietnam.