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ACADEMIC APPOINTMENTS

Mendenhall Postdoctoral Fellow	2020-Present
National Earthquake Information Center, U.S. Geological Survey, Golden, CO	
Postdoctoral Scholar	2019-2020
Department of Earth Sciences, University of Oregon, Eugene, OR	

EDUCATION

Ph.D., Earth Sciences	December 2018
Scripps Institution of Oceanography, University of California San Diego, La Jolla, CA	
Dissertation: <i>Seismogeodetic Methods for Earthquake and Tsunami Warning and Response</i>	
Adviser: Dr. Yehuda Bock	
M.S., Earth Sciences	2014
Scripps Institution of Oceanography, University of California San Diego, La Jolla, CA	
Sc.B., Geology – Physics/Math	2011
Brown University, Providence, RI	
Honors Thesis: <i>Ejecta Thickness Distribution for Vertical and Oblique Impacts</i>	
Adviser: Dr. Peter H. Schultz	
A.B., Engineering	2011
Brown University, Providence, RI	

PROFESSIONAL EXPERIENCE

Environmental Scientist	2012-2013
AKRF, Inc., New York, NY	
Undergraduate Research Fellow	2010-2011
NASA Rhode Island Space Grant Consortium, Providence, RI	

PUBLICATIONS

- [9] **Goldberg, D.E.** and Melgar, D. (2020). Generating broadband synthetic P-waves in semi-stochastic models of large earthquakes, in prep.
- [8] **Goldberg, D. E.**, Melgar, D., Thomas, A. M., Sahakian, V. J., Xu, X., Geng, J., and Crowell, B. W. (2020). Complex rupture of an immature fault zone: A simultaneous kinematic model of the 2019 Ridgecrest, CA earthquakes. *Geophysical Research Letters* doi: 10.1029/2019GL086382, in press.
- [7] Melgar, D., Melbourne, T. I., Crowell, B. W., Geng, J., Szeliga, W., Scrivner, C., Santillan, M., and **Goldberg, D. E.** (2019). Real-time high rate GNSS displacements: Performance demonstration during the 2019 Ridgecrest, CA earthquakes. *Seismological Research Letters* doi: 10.1785/0220190223, in press.
- [6] Goldberg, D. E., Melgar, D., and Bock, Y. (2019). Seismogeodetic P-wave amplitude: No evidence for strong determinism. *Geophysical Research Letters*, 46(20):11118–11126 doi: 10.1029/2019GL083624

- [5] Wang, X., Wittich, C., Hutchinson, T., Kuester, F., Bock, Y., **Goldberg, D. E.**, and Lo, E. (2019). Methodology and validation of a UAV-based video analysis approach for tracking earthquake-induced displacements of buildings. *Journal of Computing in Civil Engineering*, in review.
- [4] **Goldberg, D. E.**, Melgar, D., Bock, Y., and Allen, R. M. (2018). Geodetic observations of weak determinism in rupture evolution of large earthquakes. *Journal of Geophysical Research: Solid Earth*, 123:9950–9962. doi: 10.1029/2018JB015962
- [3] Ruhl, C. J., Melgar, D., Geng, J., **Goldberg, D. E.**, Crowell, B. W., Allen, R. M., Bock, Y., Barrientos, S., Riquelme, S., Baez, J. C., Cabral-Cano, E., Pérez-Campos, X., Hill, E. M., Protti, M., Ganas, A., Ruiz, M., Mothes, P., Jarrín, P., Nocquet, J.-M., Avouac, J.-P., and D’Anastasio, E. (2018). A global database of strong-motion displacement GNSS recordings and an example application to PGD scaling. *Seismological Research Letters*, 90(1):271–279. doi: 10.1785/0220180177
- [2] **Goldberg, D. E.** and Bock, Y. (2017). Self-contained local broadband seismogeodetic early warning system: Detection and location. *Journal of Geophysical Research: Solid Earth*, 122(4):3197–3220. doi: 10.1002/2016JB013766
- [1] Saunders, J. K., **Goldberg, D. E.**, Haase, J. S., Bock, Y., Offield, D. G., Melgar, D., Restrepo, J., Fleischman, R. B., Nema, A., Geng, J., Walls, C., Mann, D., and Mattioli, G. S. (2016). Seismogeodesy using GPS and low-cost MEMS accelerometers: Perspectives for earthquake early warning and rapid response. *Bulletin of the Seismological Society of America*, 106(6):2469–2489. doi: 10.1785/0120160062

AWARDS AND HONORS

Outstanding Student Paper Award, American Geophysical Union Fall Meeting	2016
Undergraduate Teaching and Research Award, Brown University	2011

INVITED TALKS

Using Seismic and Geodetic Observations in a Simultaneous Kinematic Model of the 2019 Ridgecrest, California Earthquakes <i>European Geosciences Union Annual Meeting</i>	2020
(Seismo)geodetic Observation of Weakly Deterministic Earthquake Rupture <i>University of Oregon, Eugene, OR</i>	2019
Seismogeodetic Observation of Rupture Evolution: Evaluating Determinism and Rapid Magnitude Estimation <i>Colorado School of Mines, Golden, CO</i>	2018
Seismogeodetic Early Warning and Evidence for Weakly Deterministic Rupture <i>National Autonomous University of Mexico, Mexico City, Mexico</i>	2018
Applications of Real-Time Geodesy <i>UNAVCO Science Workshop, Broomfield, CO</i>	2018
Rapid Magnitude Estimation from Seismogeodetic Data <i>USGS Earthquake Science Center, Menlo Park, CA</i>	2018
Improvement of Real-Time Seismic Magnitude Estimation Combining Seismic and Geodetic Instrumentation <i>OSPA eLightning Session, AGU Fall Meeting, New Orleans, LA</i>	2017
Warning! Local Tsunami Alert from GPS Array	

NASA Hyperwall, AGU Fall Meeting, New Orleans, LA	2017
Seismogeodesy Panel Discussion	
IAG/IASPEI Joint Meeting, Kobe, Japan	2017
Improvement of the Earthquake Early Warning System Through Seismogeodesy	
National Earthquake Infrastructure Service, Beijing, China	2016
The Role of GNSS for Improvement of Seismic Earthquake Early Warning Systems	
Institute of Geology, China Earthquake Administration, Beijing, China	2016
Assessing the Performance of Seismogeodetic Earthquake Monitoring at the UCSD Large High Performance Outdoor Shake Table	
National Earthquake Infrastructure Service, Beijing, China	2016

TEACHING

Guest Lecturer, University of Oregon, <i>Dynamic Planet Earth</i>	2019
Generic Mapping Tools Short Course for REU Students	2016-2018
Sally Ride Science Junior Academy, <i>Space Out!</i>	2017-2018
Sally Ride Science Library Outreach, <i>Solar Eclipse</i>	2017
Teaching Assistant, UC San Diego, <i>The Planets</i>	2017
Teaching Assistant, Brown University, <i>Mars Moon and the Earth</i>	2010

FIELD WORK

GPS Campaign Surveys, Southern California	2013-2018
UC San Diego Large High Performance Outdoor Shake Table	2014, 2016, 2018
UC San Diego Geisel Library Structural Monitoring	2017-2018
Ocean Bottom Seismometer Recovery Research Cruise	2015
Volcanology Field Course, Volcanoes National Park, Hawaii	2015
Geophysical Methods Field Course	2015

SERVICE

Guest Editor	2019-2020
<i>Remote Sensing Special Issue: GNSS Seismology</i>	
Session Chair, American Geophysical Union Fall Meeting	2019
Peer Reviewer	
<i>Geophysical Journal International, Geophysical Research Letters, Journal of Geodesy, Journal of Geophysical Research, PLOS One, Remote Sensing, Seismological Research Letters</i>	
Discussion Session Leader, UNAVCO Science Meeting	2018
Graduate Student Representative	
<i>Scripps Institution of Oceanography Computing Committee</i>	2016-2018
<i>Geophysics Curricular Group</i>	2014-2016

MENTORSHIP

Leadership Committee Member, Scripps Peer Mentorship Program	2016-2017
Graduate Student Mentor, Scripps Peer Mentorship Program	2015-2017

PROFESSIONAL MEMBERSHIPS

American Geophysical Union
 American Association for the Advancement of Science
 Seismological Society of America

SELECTED MEETING ABSTRACTS

- Goldberg, D.E.** and D. Melgar, Generation and validation of broadband P-waves in semi-stochastic models of large earthquakes. Seismological Society of America Annual Meeting, 2020, abstract 5548.
- Goldberg, D.E.**, D. Melgar, V.J. Sahakian, A.M. Thomas, X. Xu, B.W. Crowell, and J. Geng, The Complex, Multi-Fault Rupture Process of the 2019 Ridgecrest, CA Earthquakes: A Simultaneous Kinematic Model. Seismological Society of America Annual Meeting, 2020, abstract 5529.
- Goldberg, D.E.** and D. Melgar, Modeling and validation of broadband P-waves in semi-stochastic models of large earthquakes. American Geophysical Union Fall Meeting, 2019, abstract 546496.
- Goldberg, D.E.**, Y. Bock, F. Kuester, E. Lo, R. Maher, Multi-Sensor Natural Hazard Structural Monitoring at the UC San Diego Geisel Library. American Geophysical Union Fall Meeting, 2018, abstract 411336.
- Goldberg, D.E.**, D. Melgar, Y. Bock, Rapid magnitude estimation from time-dependent displacement amplitude measured with seismogeodetic instrumentation. American Geophysical Union Fall Meeting, 2017, abstract 266543.
- Goldberg, D.E.**, Y. Bock and D. Melgar, Seismogeodesy for Rapid Earthquake Magnitude Estimation. Joint Scientific Assembly of the International Association of Geodesy and the International Association of Seismology and Physics of the Earth's Interior, 2017, abstract T000748.
- Goldberg, D.E.**, Y. Bock, and D. Melgar, Rapid Earthquake Magnitude Estimation for Early Warning Applications. European Geological Union General Assembly, 2017, abstract 11571.
- Goldberg, D.E.**, Y. Bock, and D. Melgar, Earthquake Early Warning with Seismogeodesy. American Geophysical Union, Fall Meeting 2016, abstract #S23A-2765.
- Goldberg, D.E.**, J.K. Saunders, J.S. Haase, Y. Bock. Seismogeodetic Observations of the June 10, 2016 M5.2 Borrego Springs Earthquake. Southern California Earthquake Consortium Meeting, 2016.
- Goldberg, D. E.**, Y. Bock, Rapid Magnitude Estimation using Seismogeodesy in the Western U.S., UNAVCO Science Workshop, 2016.
- Goldberg, D.E.**, The Future of Seismogeodesy, Ignite Presentation at UNAVCO Science Workshop, 2016.
- Goldberg, D.E.**, Y. Bock, J. Geng, D. Melgar, J.K. Saunders, J.S. Haase, The Role of Real-Time GNSS in Tsunami Early Warning and Hazard Mitigation, American Geophysical Union, Fall Meeting 2015, abstract #NH23C-1908.
- Goldberg, D.E.**, Y. Bock, J. Geng, D. Melgar, J. K. Saunders, J. S. Haase, The Role of Real-Time GNSS in Earthquake and Tsunami Early Warning, ERI and SCEC 3rd International Summer School on Earthquake Science 2015.
- Goldberg, D.E.**, Y. Bock, R. Clayton, B.W. Crowell, P. Fang, J. Geng, J.S. Haase, D. Mann, G.S. Mattioli, D. Melgar, D. Mencin, D.G. Offield, J.K. Saunders, M.B. Squibb, C. Walls, E. Yu, Earthquake Early Warning and Rapid Characterization in the Western U.S. Using Seismogeodesy, Seismological Society of America, Annual Meeting 2015.
- Goldberg, D.E.**, J.S. Haase, D. Melgar, Y. Bock, J. Geng, and J.K. Saunders, A Real-Time Seismogeodetic Network Using MEMS Accelerometers and Its Performance in Kinematic Slip Inversions, American Geophysical Union, Fall Meeting 2014, abstract #S13F-05.