

## Morgan T. Page

---

### CONTACT INFORMATION

U.S. Geological Survey  
525 S. Wilson Ave.  
Pasadena CA 91106 USA

*Voice:* (626) 583-6804  
*E-mail:* [pagem@caltech.edu](mailto:pagem@caltech.edu)  
*Web:* [www.its.caltech.edu/~pagem](http://www.its.caltech.edu/~pagem)

### RESEARCH INTERESTS

I am interested in earthquake source physics, probabilistic hazard analysis, and inverse problems in seismology. In particular my research has focused on statistical issues in seismology, including rigorously incorporating model uncertainty into hazard analysis, quantifying uncertainty in kinematic inversions, and analyzing nonstationarities in earthquake catalogs.

### EDUCATION

**University of California, Santa Barbara, California, USA**

Advisor: Jean M. Carlson  
Ph.D., Physics, 2007  
M.A., Physics, 2005

**Grinnell College, Grinnell, Iowa USA**

B.A., Physics, *with honors*, 2002  
B.A., Mathematics, 2002

### HONORS AND AWARDS

SCEC Honorary Lecturer, 2010

Associate Editor, *Bulletin of the Seismological Society of America*, 2010-present

Co-organizer, Source Inversion Validation exercise, with Martin Mai and Danijel Schorlemmer, 2008-present

Mendenhall Postdoctoral Fellowship, 2007

Best Student Presentation Award, Seismological Society of America, 2007

Key Scientist, Uniform California Earthquake Rupture Forecast

Referee, *Journal of Geophysical Research*, *Geophysical Journal International*, *Bulletin of the Seismological Society of America*, *Seismological Research Letters*, *Geophysical Research Letters*, and *Annals of Geophysics*

NEHRP Grant, coauthor with PIs Ralph Archuleta and Jean Carlson, 2006

National Science Foundation Graduate K-12 Education Fellowship, 2005

National Science Foundation Graduate K-12 Education Fellowship, 2004

Best Student Presentation Award, Seismological Society of America, 2004

Broida Fellowship, University of California, Santa Barbara, 2002

Eugene Cota-Robles Fellowship, University of California, Santa Barbara, 2002

Meritorious Rating, COMAP Mathematical Contest in Modeling, 2000

RESEARCH  
EXPERIENCE

**U.S. Geological Survey, Pasadena, California USA**  
*Research Geophysicist* **2009-present**

*Mendenhall Postdoctoral Fellow* **2007-2009**  
Advisor: Dr. Ned Field  
Geophysics

**University of California, Santa Barbara, Dept. of Physics, Santa Barbara, California USA**  
*Graduate Research Assistant* **2003-2007**  
Advisor: Dr. Jean M. Carlson  
Geophysics

**Grinnell College, Dept. of Physics, Grinnell, Iowa USA**  
*Undergraduate Research Assistant* **2000-2001**  
Advisor: Dr. Charles Duke  
Gamma-ray Astronomy

*Undergraduate Research Assistant* **Summer 1999**  
Advisor: Dr. Mark Schneider  
Modeling of a Low-Energy Positron Spectrometer

TEACHING  
EXPERIENCE

**University of California, Santa Barbara, Santa Barbara, California USA**

*Leaps Fellow* **2005-2006**

Santa Barbara High School

*Leaps Fellow* **2004-2005**

Santa Barbara Junior High School

The Leaps Fellowship program is part of an NSF GK-12 grant to UCSB and places graduate students in 8th and 9th grade science classrooms. As a Leaps fellow I taught lessons, designed curricula and demonstrations, and ran labs at the local schools. I also helped to arrange Family Science nights, field trips, and lab tours, with the goal of better integrating local science classrooms, UCSB, and the community.

*Calculus tutor* **1999-2001**

Grinnell College Math Lab

PUBLICATIONS

Page, Morgan, and Karen Felzer. Southern San Andreas Fault Seismicity is Consistent with the Gutenberg-Richter Magnitude-Frequency Distribution, *under internal review*.

Page, Morgan T., and Edward H. Field. An Entropic Explanation for Gutenberg-Richter Scaling, *under internal review*.

Page, Morgan T., David Alderson, and John Doyle. The Magnitude Distribution of Earthquakes near Southern California Faults. *J. Geophys. Res. - Solid Earth*. 116, B12309 (2011).  
doi:10.1029/2010JB007933

Hough, Susan E. and Morgan Page. Towards a Consistent Model for Strain Accrual and Release for the New Madrid, Central U.S., Seismic Zone, *J. Geophys. Res. - Solid Earth*. 116, B03311 (2011).  
doi:10.1029/2010JB007783

Field, Edward. H., and Page, Morgan T. Estimating Earthquake-Rupture Rates on a Fault or Fault System, *Bull. Seism. Soc. Am.* 101, 1 (2011). doi: 10.1785/0120100004

Custódio, S., M. T. Page, and R. J. Archuleta. Constraining Earthquake Source Inversions with GPS Data 2: A Two-Step Approach to Combine Seismic and Geodetic Datasets. *J. Geophys. Res. - Solid Earth.* 114, B01315 (2009). doi:10.1029/008JB005746

Page, M. T., S. Custódio, R. J. Archuleta, and J. M. Carlson. Constraining Earthquake Source Inversions with GPS Data 1: Resolution Based Removal of Artifacts. *J. Geophys. Res. - Solid Earth.* 114, B01314 (2009). doi:10.1029/2007JB005449

Ma, Shuo, Ralph J. Archuleta, and Morgan T. Page. Effects of Large-Scale Surface Topography on Ground Motions, as Demonstrated by a Study of the San Gabriel Mountains, Los Angeles, California. *Bull. Seism. Soc. Am.* 97, 6 (2007). doi: 10.1785/0120070040

Page, M. T. and J. M. Carlson. Methodologies for Earthquake Hazard Assessment: Model Uncertainty and the WGCEP-2002 Forecast. *Bull. Seism. Soc. Am.* 96, 5 (2006). doi: 10.1785/0120050195

Page, M. T., E. M. Dunham, and J. M. Carlson. Distinguishing Barriers and Asperities in Near-Source Ground Motion. *J. Geophys. Res. - Solid Earth.* 110, B11302 (2005). doi:10.1029/2005JB003736

Petry, D., et al. The TeV spectrum of H1426+428. *Astrophys. J.* 580, 104 (2002). astro-ph/0207506

#### INVITED TALKS

Page, Morgan, Ned Field, and Kevin Milner. A Truly Grand Inversion for Long-Term Rupture Rates: Preliminary Results using UCERF2 Ingredients, UCERF3 Meeting, Berkeley, 2011.

Page, Morgan, Karen Felzer, Ned Field, and Kevin Milner. Evidence Against Characteristic Faults and Implications for Seismic Hazard Analysis, University of California, Santa Cruz, 2011.

Page, Morgan, and Ned Field. The “Baby Grand” Inversion: Solving for Northern CA Rupture Rates, UCERF3 Meeting, Oxnard, 2011.

Page, Morgan, and Karen Felzer. Evidence for the Gutenberg-Richter Magnitude Frequency Distribution on the Southern San Andreas Fault, UCERF3 Meeting, Oxnard, 2011.

Page, Morgan, Karen Felzer, and Ned Field. The Where and Why of Gutenberg-Richter Magnitude Scaling (*SCEC honorary lecture*), Northwestern University, 2011.

Page, Morgan, and Ned Field. Use of Deformation Models in UCERF3, UCERF3 Deformation Workshop, Golden, 2011.

Page, Morgan, Karen Felzer, and Ned Field. The Where and Why of Gutenberg-Richter Magnitude Scaling (*SCEC honorary lecture*), University of California, Los Angeles, 2011.

Page, Morgan, Martin Mai, Mathieu Causse, Jerg Gauser, and Danijel Schorlemmer. Source Inversion Validation (SIV): Current Progress and Future Directions, Dynamic Rupture Code Validation Workshop, 2011.

Page, Morgan, Karen Felzer, and Ned Field. The Where and Why of Gutenberg-Richter Magnitude Scaling (*SCEC honorary lecture*), Princeton University, 2011.

Page, Morgan, and Ned Field. Solving for the Rates of Earthquakes on a Complex Fault System: An Inverse Approach. Earth Science Department Seminar, University of California, Santa Barbara, 2010.

Page, Morgan, and Ned Field. Generalized Inversion for Long-Term Rupture Rates: An Earthquake Rate Model for UCERF3, UCERF3 meeting, 2010.

Page, Morgan, and Ned Field. Solving for Earthquake Rupture Rates on a Complex Fault Network. 8th Joint Meeting of UJNR Panel on Earthquake Research, Nagaoka, Japan, 2010.

Page, Morgan, Susana Custódio, Ralph J. Archuleta, J. M. Carlson, Martin Mai, and Danijel Schorlemmer. Quantifying Uncertainty in Earthquake Source Inversions. USGS Modeling Conference, 2010.

Page, Morgan, Karen Felzer, Ray Weldon, Glenn Biasi, David Alderson, and John Doyle. The Case for Gutenberg-Richter Scaling on Faults. SSA Annual Meeting, 2010. Available at <http://www.seismosoc.org/meetings/2010/eqdebates>.

Page, Morgan. Review of the September 2009 SIV Workshop. Source Inversion Validation Workshop at KAUST, Saudi Arabia, 2010.

Page, Morgan, and Ned Field. Constraining the Earthquake Rate Model: The Magnitude-Frequency Distribution and Catalog Seismicity. UCERF3 Meeting, 2009.

Page, Morgan, and Ned Field. A Generalized Inverse Approach. UCERF3 Meeting, 2009.

Page, Morgan, Martin Mai, and Danijel Schorlemmer. Source Inversion Validation (SIV): Past, Present, and Future. Dynamic Rupture Code Validation Workshop, 2009.

Page, Morgan, Karen Felzer, Ray Weldon, Glenn Biasi, David Alderson, John Doyle, and Ned Field. Magnitude-frequency Statistics on a Single Fault: Gutenberg-Richter or Characteristic? U.S. Geological Survey, Menlo Park, 2009.

Page, Morgan, Angela Jayko, Anthony Guarino, Egill Hauksson, Ken Hudnut, Sue Hough, and Bob Dollar. The October 2009 Earthquake Sequence near Olancho, CA. Earthquake Research Affiliates Meeting, 2009.

Page, Morgan, Karen Felzer, Ray Weldon, Glenn Biasi, David Alderson, John Doyle, and Ned Field. The Evidence for Gutenberg-Richter Statistics on Individual Faults. University of Southern California, 2009.

Page, Morgan, Karen Felzer, Ray Weldon, Glenn Biasi, David Alderson, John Doyle, and Ned Field. Magnitude-frequency statistics on a single fault: Does Gutenberg-Richter scaling apply? SCEC Annual Meeting, 2009.

Page, Morgan, Karen Felzer, Ray Weldon, Glenn Biasi, David Alderson, John Doyle, and Ned Field. Testing the Characteristic Earthquake Hypothesis. 6th International Workshop on Statistical Seismology, 2009.

Page, Morgan, Karen Felzer, Ray Weldon, Glenn Biasi, David Alderson, and John Doyle. Seismicity in Major Fault Zones in Southern California: Gutenberg-Richter or Characteristic? Tectonics Observatory Seminar, California Institute of Technology, 2009.

Page, Morgan, Karen Felzer, Ray Weldon, and Glenn Biasi. The Magnitude-Frequency Distribution of the Southern San Andreas Fault: Resolving Apparent Deviations from Power-Law Behavior. Complex Systems and Condensed Matter Seminar, University of California, Santa Barbara, 2009.

Page, Morgan, David Alderson, John Doyle, and Andrew Michael. Nonstationarities in the California Catalog. Post-doc Colloquium, U.S. Geological Survey, Menlo Park, 2008.

Page, Morgan, Susana Custódio, Ralph J. Archuleta, and J. M. Carlson. Strategies for Uncertainty Assessment in Source Inversions. Source Inversion Workshop, 2008.

Page, Morgan, Susana Custódio, Ralph J. Archuleta, and J. M. Carlson. GPS Inversions: What Can They Resolve? Dix Seismo Lab Seminar, California Institute of Technology, 2007.

Page, Morgan, Susana Custódio, Ralph J. Archuleta, and J. M. Carlson. Constraining Earthquake Source Inversions with GPS Data: Resolution Based Removal of Artifacts. U.S. Geological Survey, Menlo Park, 2007.

Page, Morgan, Susana Custódio, Ralph J. Archuleta, and J. M. Carlson. Using Resolution Information to Eliminate Artifacts in Earthquake Source Inversions. University of Southern California, 2007.

Page, Morgan, Susana Custódio, Ralph J. Archuleta, and J. M. Carlson. Resolution of Slip from Inversions of GPS Data. Lamont-Doherty Earth Observatory, 2007.

Page, Morgan, Susana Custódio, Ralph J. Archuleta, and J. M. Carlson. Resolution of GPS Data from the 2004  $M_w$ 6.0 Parkfield Earthquake. 6th Joint Meeting of UJNR Panel on Earthquake Research, Tokushima, Japan, 2006.

Page, Morgan, and J. M. Carlson. Quantifying Spatial Resolution and Uncertainty in Kinematic Inversions. Connections II Workshop, California Institute of Technology, 2005.

Page, Morgan. Predicting the Unpredictable: A Look at Earthquakes. Condensed Matter Seminar, University of California, Santa Barbara, 2004.

## OUTREACH

Lecturer, USGS Pasadena Public Lecture Series, 2011.

Speaker, Pasadena Senior Center, 2011.

Keynote Speaker, Girl Scouts Family Science Festival, 2008.

Co-chair and Webmaster, Women in Physics Group, UCSB, 2005-2007.

Judge, Santa Barbara Junior High Science Fair, 2004, 2005, 2006.

Volunteer, Science and Technology Day, University of California, Santa Barbara, 2005.

Graduate Mentor, Women in Science and Engineering, University of California, Santa Barbara, 2004-2007.

Coordinator, Grinnell Women in Physics Lunches, Grinnell College, 2000-2001.

Volunteer, Saturday Science Outreach Program, Grinnell College, 2000-2001.

Teaching Assistant, Summer Astronomy Program, Grinnell College, 2000.