

SCOTT THOMAS MARSHALL



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EDUCATION

- Ph.D. Geosciences: University of Massachusetts Amherst 2008
Dissertation: "Deformation Associated with Faulting Within Interseismic and Geologic Timescales"
- M.S. Geology: University of Idaho 2004
Thesis: "Growth Mechanics and Morphologic Evolution of Cycloids on Europa"
- B.S. Geological Sciences: Wright State University 2001
Thesis: "An Analysis of Heterogeneity in the Miami Valley Aquifer near the Confluence of the Mad and Miami Rivers; Dayton, Ohio"

PROFESSIONAL EXPERIENCE

- Professor: Appalachian State University, Boone, NC 2019-Present
- Associate Professor: Appalachian State University, Boone, NC 2014-2019
- Assistant Professor: Appalachian State University, Boone, NC 2008-2014
Geophysics, satellite geodesy, fault mechanics, neotectonics, and near-surface geophysics
- Postdoctoral Researcher: University of Massachusetts Amherst 2008
Development of 3D models of southern California with heterogeneous rock stiffness
- Research Assistant: Geosciences Department, University of Massachusetts Amherst 2004-2008
3D modeling of active tectonics in southern California using Boundary Element Method models
- Research Assistant: Department of Geology, University of Idaho 2002-2004
Mechanics of curved fracture formation on Jupiter's icy moon, Europa, using satellite imagery
- Computer Technician: CCB Computers, Dayton, Ohio 2001-2002
Design, construction, and repair of personal computers, workstations, and laptop computers

PEER-REVIEWED PUBLICATIONS*

*BOLD INDICATES A STUDENT AUTHOR

- Johnson, K.M., Hammond, W.C., Burgette, R.J., **Marshall, S.T.**, Sorlien, C.C. (*in revision*). Present-day and long-term Uplift across the Western Transverse Ranges of southern California. *Journal of Geophysical Research*.
- Dorsett, J.H.**, Madden, E.H., **Marshall, S.T.**, Cooke, M.L., (2019). Mechanical models suggest fault linkage through the Imperial Valley, California, USA. *Bulletin of the Seismological Society of America*, Vol 109, No. 4, pp. 1217-1234, doi:10.1785/0120180303.
- Hughes, A.**, Rood, D.H., Whittaker, A.C., Bell, R.E., Rockwell, T.K., **Levy, Y.**, Wilcken, K.M., Corbett, L.B., Bierman, P.R., DeVecchio, D.E., **Marshall, S.T.**, Gurrola, L.D., Nicholson, C. (2018). Geomorphic evidence for the geometry and slip rate of a young, low-angle thrust: Implications for hazard

assessment and fault interaction in complex tectonic environments. *Earth and Planetary Science Letters*, Vol. 504, pp. 198-210, doi:10.1016/j.epsl.2018.10.003.

Beyer, J., Cooke, M.L., Marshall, S.T. (2018). Sensitivity of deformation to activity along the Mill Creek and Mission Creek strands of the southern San Andreas Fault. *Geosphere*, Vol. 14, No. 6, doi:10.1130/GES0166.1.

Zimmer, B., Liutkus-Pierce, C., Marshall, S.T., Hatala, K.G., Metallo, A., Rossi, V. (2018). Using differential structure-from-motion photogrammetry to quantify erosion at the Engare Sero footprint site, Tanzania. *Quaternary Science Reviews*, Vol. 198, doi:10.1016/j.quascirev.2018.07.006.

Resor, P.G., Cooke, M.L., Marshall, S.T., Madden, E.H. (2018). Influence of fault geometry on the spatial distribution of long-term slip with implications for determining representative fault-slip rates. *Bulletin of the Seismological Society of America*, Vol. 108, No. 4, pp. 1837-1852, doi:10.1785/0120170332.

Marshall, S.T., Funning, G.J., **Krueger, H.E.**, Owen, S.E., Loveless, J.P. (2017). Mechanical models favor a ramp geometry for the Ventura-Pitas Point fault, California. *Geophysical Research Letters*, Vol. 44, pp. 1311-1319, doi:10.1002/2016GL072289.

Herbert, J.W., Cooke, M.L., Marshall, S.T. (2014). Influence of fault connectivity on slip rates in southern California: Potential impact on discrepancies between geodetic derived and geologic slip rates. *Journal of Geophysical Research*, Vol. 119, pp. 2342–2361, doi:10.1002/2013JB010472.

Marshall, S.T., Funning, G. J., Owen, S.E. (2013). Fault slip rates and interseismic deformation in the western Transverse Ranges, California. *Journal of Geophysical Research*, Vol. 118, p. 4511-4534, doi: 10.1002/jgrb.50312.

Marshall, S.T., **Morris, A.C.** (2012). Mechanics, Slip Behavior, and Seismic Potential of Corrugated Dip-Slip Faults. *Journal of Geophysical Research*, Vol. 117, B03403, doi:10.1029/2011JB008642.

Marshall, S.T., Kattenhorn, S.A., and Cooke, M.L. (2010). Secondary normal faulting in the Lake Mead fault system and implications for regional fault mechanics. *in* Umhoefer, P.J., Beard, L.S., and Lamb, M.A., eds., *Miocene Tectonics of the Lake Mead Region, Central Basin and Range: Geological Society of America Special Paper 463*, pp. 289–310, doi:10.1130/2010.2463(13).

Marshall, S.T., Cooke, M.L., and Owen, S.E. (2009). Interseismic deformation associated with three-dimensional faults in the greater Los Angeles region, California. *Journal of Geophysical Research*. Vol. 114, B12403, doi:10.1029/2009JB006439.

Marshall, S.T., Cooke, M.L., and Owen, S.E. (2008). Effects of non-planar fault topology and mechanical interaction on fault slip distributions in the Ventura Basin, CA. *Bulletin of the Seismological Society of America*. Vol. 98, No. 3, pp. 1113-1127 doi:10.1785/0120070159.

Meigs, A., Cooke, M.L., and Marshall, S.T. (2008). Using vertical rock uplift patterns to constrain the three-dimensional fault configuration in the Los Angeles Basin. *Bulletin of the Seismological Society of America*, Vol. 98, No. 2, pp. 106-123 doi:10.1785/0120060254.

Cooke, M.L., and Marshall, S.T. (2006). Fault slip rates from three-dimensional models of the Los Angeles metropolitan area, California, *Geophysical Research Letters*, Vol. 33, L21212, doi:10.1029/2006GL027850.

Kattenhorn, S.A., and Marshall, S.T. (2006). Fault induced perturbed stress fields and associated tensile and compressive deformation at fault tips in the ice shell of Europa: implications for fault mechanics. *Journal of Structural Geology*, Vol. 28, pp. 2204-2221 doi:10.1016/j.jsg.2005.11.010.

Marshall, S.T., and Kattenhorn, S.A. (2005). A revised model for cycloid growth mechanics on Europa: evidence from surface morphologies and geometries. *Icarus*, Vol. 177, pp. 341-366
doi:10.1016/0019-1035(88)90104-2.

RESEARCH GRANTS

2018-2019	Southern California Earthquake Center	\$28,000
	"Test of a new automated method for remeshing the CFM for use by earthquake simulators."	
	Co-PI's: Terry Tullis (Brown Univ) Michael Barall (Invisible Software), Christine Goulet (USC), John Shaw (Harvard), Keith Richards-Dinger (UCR)	
2017-2018	Southern California Earthquake Center	\$12,000
	"Workshop to Plan for Creating an Updatable Version of the CFM for use by Earthquake Simulators"	
	Co-PI's: Terry Tullis (Brown Univ) Michael Barall (Invisible Software), James Deiterich (UCR), Edward Field (USGS)	
2016-2017	Southern California Earthquake Center	\$14,000
	"Role of fault geometry on the spatial distribution of the slip budget"	
	Co-PI's: Phillip Resor (Wesleyan University), Michele Cooke & Elizabeth Madden (University of Massachusetts)	
2016-2017	Southern California Earthquake Center	\$25,000
	"High Resolution Geodetic Measurements of Deformation throughout the Ventura Special Fault Study Area"	
	Co-PI's: Gareth Funning (University of California Riverside), Susan Owen (Jet Propulsion Laboratory)	
2016-2017	Southern California Earthquake Center	\$15,000
	"Ventura Special Fault Study Area Workshop"	
	Co-PI's: James Dolan (USC), Thomas Rockwell (SDSU), John Shaw (Harvard)	
2015-2016	Southern California Earthquake Center	\$25,000
	"Role of fault geometry on the spatial distribution of the slip budget"	
	Co-PI's: Phillip Resor (Wesleyan University), Michele Cooke & Elizabeth Madden (University of Massachusetts)	
2015-2016	Southern California Earthquake Center	\$24,000
	"High Resolution Geodetic Measurements of Deformation throughout the Ventura Special Fault Study Area"	
	Co-PI's: Gareth Funning (University of California Riverside), Susan Owen (Jet Propulsion Laboratory)	
2014-2015	Southern California Earthquake Center	\$20,000
	"Using Mechanical Models to Test Ventura Special Fault Study Area Alternative Fault Models"	
	Co-PI's: Gareth Funning (University of California Riverside), Susan Owen (Jet Propulsion Laboratory)	
2014	North Carolina Space Grant Consortium	\$6,000
	"Using Interferometric Synthetic Aperture Radar (InSAR) to Quantify Surface Deformation Patterns in Southern California"	
	Funded summer graduate assistantship for a graduate student in the Department of Physics and Astronomy, ASU	
2013-2015	Southern California Earthquake Center	\$18,000
	"Using Mechanical Models to Test Community Fault Model Updates to the Western Transverse Ranges Region, CA: Application to the Ventura Special Fault Study Area"	
	Co-PI's: Gareth Funning (University of California Riverside), Susan Owen (Jet Propulsion Laboratory), John Shaw (Harvard University)	

2011-2012 Southern California Earthquake Center	\$25,000
"Characterizing Non-tectonic and Interseismic Deformation in the Ventura Basin Region, CA"	
Co-PI's: Gareth Funning (University of California Riverside), Susan Owen (Jet Propulsion Laboratory)	
2010 North Carolina Space Grant Consortium	\$4,000
"Mechanics, Slip Behavior, and Seismic Potential of Corrugated Reverse Faults"	
Funded summer graduate assistantship for a graduate student in the Department of Physics and Astronomy, ASU	
2010-2011 Southern California Earthquake Center	\$20,000
"Geologic, Interseismic, and Non-tectonic Deformation in the Ventura Region, CA"	
Co-PI's: Gareth Funning (University of California Riverside), Susan Owen (Jet Propulsion Laboratory)	

COURSES REGULARLY TAUGHT

GLY3455/ENV3455: Quantitative Data Analysis for Earth and ENV Scientists	Lecture & Lab
An introduction to processing, visualizing, and interpreting quantitative Earth and environmental science data using the scientific computing language, MATLAB. Topics covered include: scripting, functions, loops, conditionals, data types, vector operations, applications of differentiation, interpolation, curve fitting, image processing, and 3D data visualization.	
GLY3160/PHY3160: Introduction to Geophysics	Lecture & Lab
An introduction to the application of physics and mathematics to study geologic structures and processes including: data processing, seismology, earthquakes, tectonophysics, seismic reflection, seismic refraction, gravity, and electrical methods.	
GLY1101: Introduction to Physical Geology	Lecture & Lab
An introduction to geology and geologic processes including: formation of the Earth, its inner structure, movement of tectonic plates, the materials that make up our planet, the various landscapes on the surface, and the way the planet has changed through time.	
GLY5530/GLY3500: The Stress Tensor	Lecture
An introduction to the assessment of rock strength and the mechanical criteria used to predict and analyze rock deformation and failure. The concept of tensor quantities (e.g. stress/strain) are mathematically described in detail.	
GLY3530: Geospatial Visualization and Scripting.....	Hybrid Lecture/Lab
An introduction to automating the visualization of geospatial data using Linux-based Bash scripting and the open-source Generic Mapping Tools software package. The course focuses on automating the processing of Digital Elevation Models (DEM), plotting spatial data, and visualizing three-dimensional data.	

COMPUTATIONAL EXPERIENCE

Multi-Platform System Administrator

- Building/Repairing/Maintaining custom Linux/Windows workstations and servers for research tasks
- Installation and maintenance of Linux/UNIX, Windows, and Mac OS (including RAID arrays)
- Multi-user system administration: including LAN/WAN ssh and sftp servers
- bash/sh, tcsh/csh, and Perl scripting to automate system tasks

Programming Experience

- Perl, MATLAB, bash/sh, tcsh/csh, Maple, C, Java, XHTML, CSS

Modeling Experience

- Boundary Element Method - Poly3D, Fric2D
- Finite Element Method - Comsol

Analytical Modeling - MATLAB, Maple, Perl

Visualization and Mapping Software Experience

Generic Mapping Tools (GMT), MATLAB, Midland Valley Move, Creation of interactive 3D pdf files, Adobe Illustrator, Adobe Photoshop, Google Earth (kml file generation and visualization)

FIELD EXPERIENCE

- Land of Fire and Ice: The Geology of Iceland 2014-Present
A two-week field geology course (offered as GLY1103) taught in the second summer session that covers the geology of Iceland including glaciers, floods, volcanoes, earthquakes, and basic field geology. Co-led with Brian Zimmer (ASU).
- Near-Surface Geophysical Surveying at the ASU Greenway Park 2009-Present
DC Resistivity, Ground-Penetrating Radar (GPR), Seismic Refraction of the New River flood plain in Boone, NC
- Near-Surface Geophysical Surveying in Ashe County, NC 2010-2012
DC Resistivity and Ground-Penetrating Radar (GPR) of fluvial terraces in Ashe County, NC, in collaboration with Ellen Cowan (ASU)
- Near-Surface Geophysical Surveying of Placerias Quarry, AZ 2012-2013
DC Resistivity and Seismic Refraction in NE Arizona, in collaboration with Andrew Heckert (ASU)
- Field Trip Co-Leader / Outreach Experience: SOAR-High Collaboration 2005-2008
Teaching structural geology to deaf high school students using American Sign Language
- Field Trip Leader: GEO-101 Field Trip: The Berkshire Mountain Belt 2007
A 1-day required field trip for all students in GEO-101 at UMass
- Paleomagnetism Field Work (Spanish Pyrenees) 2006
Detrital paleomag sample collection. Competent in spoken and written Castilian Spanish
- Field Trip Leader: UMass Amherst 2006
The Taconic Orogeny and Faults of NW Vermont: 1-Day Undergraduate-Level Trip
- Lake Mead Fault System, Nevada Field Work 2003
Field-based study of secondary fracturing at multiple scales. Fracture, fault, and geologic mapping. Fault nucleation mechanics
- Field Trip Co-Leader: University of Idaho 2003
Miocene Faults of the Lake Mead Fault System: 2-Day graduate-level field trip.

PROFESSIONAL AFFILIATIONS

- Southern California Earthquake Center (institutional representative) 2004-Present
- UNAVCO (institutional representative) 2008-Present
- American Geophysical Union 2002-Present
- Seismological Society of America 2008-Present
- Geological Society of America 2000-Present

PROFESSIONAL SERVICE

- SCEC Planning Committee Member 2017-Present

Co-leader of the Community Modeling Group (CXM), liaison for the Community Fault Model (CFM) group. We are responsible for numerous disciplinary activities, planning the annual meeting, and reviewing SCEC proposals.

- ASU Faculty Senate 2017-Present
Served as department representative for the Dept. of Geology.
- Director: Visualization and Computation Laboratory (ASU) 2014-Present
Designed and now directs a facility that provides several high-end workstations for use in faculty research.
<https://cvl.appstate.edu/>.
- Co-Leader: SCEC Ventura Special Fault Study Area 2013-2017
Geodesy/Crustal deformation modeling leader of the Southern California Earthquake Center (SCEC) Ventura Special Fault Study Area (SFSA). <http://www.scec.org/research/sfsa.html>.
- ASU Environmental Science Advisory Board..... 2013-Present
The ENV advisory board is responsible for approving curriculum changes for the environmental science degree program
- Appalachian Geology Lecture Series 2012-2015
Organized and scheduled the weekly scientific lecture series for the department of geology at ASU.
- Peer Review of Scholarly Manuscripts 2005-Present
Reviewed works for: Geophysical Journal International, GSA Bulletin, Icarus, Journal of Geophysical Research, Journal of Structural Geology, NSF Earthscope & Geophysics, Tectonics, and Pure and Applied Geophysics.

INVITED TALKS

- SCEC: Using the Community Fault Model in Earthquake Simulators Workshop 2017
- SCEC: Ventura SFSA Workshop 2016
- University of California Riverside 2016
- Appalachian State University Department of Physics and Astronomy 2015
- West Virginia University 2014
- James Madison University 2013
- University of North Carolina at Chapel Hill 2012
- Appalachian State University Department of Mathematical Sciences 2011
- University of California Riverside 2008
- USGS Earthquake Seminar Series, Menlo Park, CA 2007

CONFERENCE PRESENTATIONS*

*BOLD INDICATES A STUDENT AUTHOR

- Su, M-H., Maechling, P., **Marshall, S.T.**, Hearn, E.H., Nicholson, C., Plesch, A., Shaw, J.H., Pauk, E. (2019) Developing a Web-based Interface to the SCEC Community Fault Model (CFM). *Annual Meeting of the Seismological Society of America, Seattle, WA.*
- Arrowood, T.M.**, **Marshall, S.T.** (2019). Three-dimensional geophysical imaging of the New River floodplain, Boone, NC. *Southeast Geological Society of America Meeting, Charleston, SC.*
- Marshall, S.T.**, Madden, E.H., **Dorsett, J.H.**, Cooke, M.L. (2018). Fault linkage through the Imperial Valley, California is required to match current slip rate estimates. *Annual Meeting of the Southern California Earthquake Center, Palm Springs, CA.*

- Nicholson, C., Plesch, A., Shaw, J.H., Marshall, S.T. (2018). Enhancements, Updates, and Improved Access to the Community Fault Model. *Annual Meeting of the Southern California Earthquake Center, Palm Springs, CA.*
- Hughes, A.**, Rood, D.H., Whittaker, A., Bell, R., Rockwell, T.K., Levy, Y., Wilcken, K., Corbett, L., Bierman, P., DeVecchio, D.E., Marshall, S.T., Gurrola, L.D., Nicholson, C. (2018). Geomorphic evidence for the geometry and slip rate of the Southern San Cayetano fault: Implications for hazard assessment and fault interaction in complex tectonic environments. *Annual Meeting of the Southern California Earthquake Center, Palm Springs, CA.*
- Kedar, S., Bock, Y., Moore, A., Fang, P., Liu, Z., Sullivan, A., Argus, D., Jiang, S., Marshall, S.T. (2017). Production and Uses of Multi-Decade Geodetic Earth Science Data Records. *Fall Meeting of the American Geophysical Union, New Orleans, LA.*
- Montieth, G.H.**, Zimmer, B.W., Marshall, S.T., **Richardson, L.J.**, Arlukowicz, P. (2017). Quantifying Change in Structure from Motion Models with Close Range Applications. *Fall Meeting of the Geological Society of America, Seattle, WA.*
- Resor, P.G., Cooke, M.L., Marshall, S.T., Madden, E.H. (2017). Accounting for Fault Geometry's Impact on the Slip Budget. *Fall Meeting of the Geological Society of America, Seattle, WA.*
- Kedar, S., Bock, Y., Moore, A., Fang, P., Liu, Z., Sullivan, A., Argus, D., Jiang, S., Marshall, S.T. (2017). Production and Uses of Multi-Decade Geodetic Earth Science Data Records. *Annual Meeting of the Southern California Earthquake Center, Palm Springs, CA.*
- Dorsett, J.H.**, Marshall, S.T., Madden, E.H., Cooke, M.L. (2017). Mechanical Models of Fault Slip Rates in the Imperial Valley, CA. *Annual Meeting of the Southern California Earthquake Center, Palm Springs, CA.*
- Beyer, J.**, Cooke, M.L., Marshall, S.T. (2017). Getting Pushy with the San Geronio Pass: Investigating Active Fault Geometries with Crustal Deformation Models. *Annual Meeting of the Southern California Earthquake Center, Palm Springs, CA.*
- Marshall, S.T., Funning, G.J., **Krueger, H.E.**, Owen, S.E., Loveless, J.P. (2016). The Distribution of Fault Slip Rates in the Western Transverse Ranges, CA: Evidence from Mechanical Models and Geodesy. *Fall Meeting of the American Geophysical Union, San Francisco, CA.*
- Nguyen, B.K.**, Waters, J.A., Marshall, S.T., **White, L.E.**, Sumrall, C.D. (2016). CFD Modeling of Thecal Shape in Blastoids (Echinodermata). *Fall Meeting of the Geological Society of America, Denver, CO.*
- Krueger, H.E.**, Marshall, S.T., Funning, G.J., Owen, S.E., Loveless, J.P. (2016). Seasonal Motions and Interseismic Strain Measured by Continuous GPS throughout the Transverse Ranges, CA. *Annual Meeting of the Southern California Earthquake Center, Palm Springs, CA.*
- Marshall, S.T., Funning, G.J., Owen, S.E. (2016). Is the CFM5.0 an Improvement? Evidence from Mechanical Models of the Western Transverse Ranges Region. *Annual Meeting of the Southern California Earthquake Center, Palm Springs, CA.*
- Resor, P.G, Cooke, M.L., Marshall, S.T., Madden, E.H. (2016). Role of Fault Geometry on the Spatial Distribution of the Slip Budget. *Annual Meeting of the Southern California Earthquake Center, Palm Springs, CA.*
- Esker, A.E.**, Marshall, S.T. (2015). Seasonal Variations in Subsurface Electrical Resistivity in a Floodplain Aquifer. *Fall Meeting of the American Geophysical Union, San Francisco, CA.*

- Harper, H.A., Krueger, H.E., Marshall, S.T.** (2015). Spatial and Temporal Variations in Seasonal and Anthropogenic Ground Movements Recorded by Continuous GPS in Southern California. *Fall Meeting of the American Geophysical Union, San Francisco, CA.*
- Marshall, S.T.,** Funning, G.J., Owen, S.E. (2015). High Resolution Geodetic Measurements of Interseismic Deformation across the Ventura Basin, CA. *Fall Meeting of the American Geophysical Union, San Francisco, CA.*
- Resor, P.G., Cooke, M.L., **Marshall, S.T.,** Madden E.H. (2015). Modeling Releasing Steps of Strike-Slip Fault Systems: Implications for Conflicting Estimates of Long-Term Slip Rates. *Fall Meeting of the American Geophysical Union, San Francisco, CA.*
- Marshall, S.T., Harper, H.A.,** Funning, G.J., Owen, S.E. (2015). Mechanical Models of Deformation throughout Ventura Special Fault Study Area. *Annual Meeting of the Southern California Earthquake Center, Palm Springs, CA.*
- Resor, P.G., Cooke, M.L., **Marshall, S.T.,** Madden E.H. (2015). Modeling Releasing Steps of Strike-Slip Fault Systems: Implications for Conflicting Estimates of Long-Term Slip Rates. *Annual Meeting of the Southern California Earthquake Center, Palm Springs, CA.*
- Shaw, J.H., Barrall, M., Burgette R., Dolan J.F., Geist E., Grenader J., Gobel, T., Hammond W., Hauksson E., Hubbard, J.A., Johnson, K.M. Levy, Y., McAuliffe, L., **Marshall, S.T.,** Nicholson, C., Oglesby, D. Plesch, A., Reynolds, L., Rockwell, T. Ryan, K., Simms, A., Sorlien, C., Tape, C., Thio, H.K. Ward, S. (2015). The Ventura Special Fault Study Area: Assessing the potential for large, multi-segment thrust fault earthquakes and their hazard implications. Invited talk: *Annual Meeting of the Southern California Earthquake Center, Palm Springs, CA.*
- Cowan, E.A., Seramur, K.C., **Marshall, S.T.** (2015). Upstream Terraces on the New River in North Carolina: illusive landforms with a climate history? *Southeast Geological Society of America Meeting, Chattanooga, TN.*
- Marshall, S.T., Phillips, J.R.,** Funning, G.J., Owen, S.E. (2014). Fast Horizontal Contraction without Vertical Strain: Puzzling Interseismic Geodetic Measurements in the Ventura Basin, CA. *Fall Meeting of the American Geophysical Union, San Francisco, CA.*
- Phillips, J.R., Marshall, S.T.,** Funning, G.J. (2014). InSAR Measurements of Non-Tectonic Deformation Patterns in the Western Transverse Ranges, CA. *Fall Meeting of the American Geophysical Union, San Francisco, CA.*
- Harper, H.A., Marshall, S.T.** (2014). The Distribution of Fault Slip Rates and Oblique Slip Patterns in the Greater Los Angeles, CA Region. *Fall Meeting of the American Geophysical Union, San Francisco, CA.*
- Marshall, S.T.,** Funning, G.J., Owen, S.E. (2014). Mechanical Models of the Distribution of Fault Slip Rates in the Ventura Fault System, CA. *Annual Meeting of the Southern California Earthquake Center, Palm Springs, CA.*
- Bagley, C.T.,** Heckert, A.B., **Marshall, S.T.** (2013). Using electrical resistivity surveys to determine the stratigraphic position of the upper Triassic *Placerias Quarry*, east-central Arizona. *Fall Meeting of the Geological Society of America, Denver, CO.*
- Marshall, S.T.,** Funning, G.J., Owen, S.E. (2013). Fault Slip Rates and Interseismic Deformation in the Ventura Basin Region, CA. *Annual Meeting of the Southern California Earthquake Center, Palm Springs, CA.*

- Marshall, S.T., Funning, G. J., Owen, S.E. (2012). Spatial and Temporal Variations in Strain Rates in the Western Transverse Ranges, California. *Fall Meeting of the American Geophysical Union, San Francisco, CA.*
- Marshall, S.T., (2012). Earthquake Cycle Deformation and GPS: A Quantitative Computer-Based Activity for Undergraduate Students. *Fall Meeting of the American Geophysical Union, San Francisco, CA.*
- Marshall, S.T., **Morris, A.C.** (2012). Seismic Potential and Slip Behavior of Corrugated Reverse Fault Surfaces. *Annual Meeting of the Southern California Earthquake Center, Palm Springs, CA.*
- Herbert, J.W.**, Cooke, M.L., Marshall, S.T. (2012). The Role of Fault Geometry on Geologic and Interseismic Deformation along the Southern SAF and ECSZ. *Annual Meeting of the Southern California Earthquake Center, Palm Springs, CA.*
- Marshall, S.T., Cooke, M.L. (2012). Boundary Element Method Models of Southern California. Invited oral presentation, *SCEC Community Stress Model Workshop, Menlo Park, CA.*
- Marshall, S.T. (2012). Data Filtering and Noise Reduction. Invited oral presentation for “Great Strategies” sessions, *SERC: Teaching Structural Geology, Geophysics, and Tectonics in the 21st Century Workshop, Knoxville, TN.*
- Cooke, M.L., Resor, P.G., Marshall, S.T. (2012). Are trenches and GPS stations observing representative fault slip rates? *Structural Geology and Tectonics Forum, Williamstown, MA.*
- Cooke, M.L., **Herbert, J.M.**, Marshall, S.T. (2012). Mechanical models of the southern San Andreas Fault. *SCEC Workshop on San Gorgonio Pass: Structure, Stress, Slip, and the Likelihood of Through-Going Rupture, Rancho Mirage, CA.*
- Herbert, J.M.**, Cooke, M.L., Marshall, S.T. (2012). Role of Geometric Complexity and Secondary Faults on Deformation in the San Gorgonio Pass. *SCEC Workshop on San Gorgonio Pass: Structure, Stress, Slip, and the Likelihood of Through-Going Rupture, Rancho Mirage, CA.*
- Severson, C.M.**, Funning, G.J., Marshall, S.T. (2012). Surface Deformation and Slip Distribution of the 1994 Northridge Earthquake Determined from InSAR, GPS and the Community Fault Model. *Seismological Society of America Annual Meeting, San Diego, CA.*
- Dean, J. R.**, Cowan, E.A., Seramur, K.C., Marshall, S.T. (2012). Shallow geophysical surveys of four terraces along the south fork of the new river in the Blue Ridge physiographic province. *Southeast Geological Society of America Meeting, Asheville, NC.*
- Irizarry, J.T.**, Marshall, S.T., **Severson, C.M.**, Funning, G.J. (2011). Static Stress Changes due to the 1994 M6.7 Northridge Earthquake and the Potential for Triggered Slip on the San Andreas Fault, *Fall Meeting of the American Geophysical Union, San Francisco, CA.*
- Marshall, S.T., Funning, G.J., Owen, S.E. (2011). Tectonic, Seasonal, and Anthropogenic Deformation Rates in the Western Transverse Ranges, California from the San Andreas to the Santa Barbara Channel, *Fall Meeting of the American Geophysical Union, San Francisco, CA.*
- Severson, C.M.**, Funning, G.J., Marshall, S.T. (2011). Surface Deformation and Slip Distribution of the 1994 Northridge Earthquake Determined from InSAR, *Fall Meeting of the American Geophysical Union, San Francisco, CA.*
- Marshall, S.T., Funning, G.J., Owen, S.E. (2011). Deformation Rates in the Western Transverse Ranges, California from the San Andreas to the Santa Barbara Channel measured with GPS and Persistent Scatterer InSAR. *Southern California Earthquake Center Annual Meeting, Palm Springs, CA.*

- Bailey, B.L., Marshall, S.T., Anderson, W.P.** (2010). Integrating ground penetrating radar, electrical resistivity, seismic refraction, and borehole data to image an alluvial aquifer in three dimensions. *Fall Meeting of the American Geophysical Union, San Francisco, CA.*
- Morris, A.C., Marshall, S.T.** (2010). Spatial Variations in Slip on Corrugated Reverse Fault Surfaces. *Fall Meeting of the American Geophysical Union, San Francisco, CA.*
- Marshall, S.T., Owen, S.E., Funning, G.J.** (2010). The Ups and Downs of Geodetically-Derived Deformation Rates in the Western Transverse Ranges Region, CA. *Fall Meeting of the American Geophysical Union, San Francisco, CA.*
- Marshall, S.T., Owen, S.E., Funning, G.J.** (2010). Separating Seasonal, Anthropogenic, and Tectonic Deformation in the Western Transverse Ranges Region, CA. *Southern California Earthquake Center Annual Meeting, Palm Springs, CA.*
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