

CURRICULUM VITAE
WHITNEY M. BEHR
Last updated: August, 2018

Department of Geological Sciences
University of Texas at Austin
2275 Speedway Stop C9000
Austin, TX 78712-1722

Phone: (512) 232 1941
Email: behr@utexas.edu
Office: JGB 3.318

PERSONAL INFORMATION

Full Name: Whitney Maria Behr; US Citizen; Born: Los Angeles, CA, USA on Sep. 25, 1981. Current Residence: Zürich, Switzerland; Martial Status: Married; Children: One son, born Nov. 28, 2014.

PRIMARY RESEARCH INTERESTS

Mechanics and kinematics of deformation in Earth's lithosphere, rheology of the crust and upper mantle, strain localization, rock mechanics, tectonic geomorphology, Quaternary geochronology, and quantifying fault slip rates.

ACADEMIC APPOINTMENTS

- | | |
|-------------------------|---|
| July, 2018 - | Associate Professor/ Structural Geology & Tectonics Chair
Geological Institute, Swiss Federal Institute of Technology, Zürich
(Eidgenössische Technische Hochschule, ETH), Switzerland |
| Aug. 2012 - June, 2018 | Assistant Professor
Department of Geological Sciences, Jackson School of Geosciences,
University of Texas Austin |
| July, 2011 - June, 2012 | Departmental Post-Doctoral Research Fellow
Department of Geological Sciences, Brown University
(supervisor: Greg Hirth) |
| Aug. 2006 - June 2011 | Graduate Research and Teaching Assistant
Department of Earth Sciences, University of Southern California
(advisor: John Platt) |

EDUCATIONAL BACKGROUND

- | | |
|------------|--|
| June, 2011 | Ph.D. , Structural Geology and Active Tectonics
University of Southern California
Advisor: John P. Platt; Committee: Greg Davis, Thorsten Becker, Ken Hudnut |
| May, 2006 | B.S. , Geology
California State University Northridge (transferred from Pasadena City College in 2004)
Undergraduate research advisors: George Dunne, Doug Yule |

AWARDS, FELLOWSHIPS AND DISTINCTIONS

National/International

- | | |
|------|--|
| 2016 | Fellow, Geological Society of America |
| 2016 | Jason Morgan Early Career Award in Tectonophysics, American Geophysical Union |
| 2016 | Donath Medal— Geological Society of America Young Scientist Award |
| 2016 | NSF CAREER Award |
| 2013 | Doris Curtis Outstanding Woman in Science Award, Geological Society of America |

Institutional

- 2017 Departmental Faculty Performance Award, DGS, UT Austin
- 2016 Departmental Faculty Performance Award, DGS, UT Austin
- 2016 Departmental Knebel Outstanding Teaching Award, UT Austin
- 2015 Departmental Knebel Outstanding Teaching Award, UT Austin
- 2011 Departmental Post-Doctoral Research Fellowship at Brown University, RI
- 2011 Exploration Post-Doctoral Fellowship at Arizona State University, AZ (declined)
- 2011 Final Summer Dissertation Fellowship, USC
- 2010 WISE (Women in Science and Engineering) Fellowship, (College-wide, \$5,000 award)
- 2010 Oakley Fellowship, USC (University-wide competition, \$20,000 + tuition and benefits)
- 2008 USC Graduate Teaching Award, Petrology
- 2006 University of Southern California Keck Fellowship
- 2006 Heald Outstanding Graduating Senior Award, CSUN College of Math and Sciences
- 2006 Outstanding Graduating Senior, CSUN Geology Dept.

INVITED EXTERNAL PRESENTATIONS

- 2018 Massachusetts Institute of Technology
Gordon Research Conference on Rock Deformation
Japan Geoscience Union Meeting. Session: *Lithosphere-Asthenosphere Interactions*
- 2017 Department Seminar, Brown University, RI
Department Seminar, University of Kentucky
GSA Annual Meeting, Session: *Beyond Steady State*
Department Seminar, Rice University
Department Seminar, ETH Zurich, Switzerland
Department Seminar, Princeton
Department Seminar, University of Southern California
Department Seminar, Southern Methodist University
- 2016 AGU Annual Meeting. Session: *Linking Surface Kinematics to Crustal and Mantle Flow*
Department Seminar, Indiana University at Bloomington
GSA Annual Meeting (Gold Medal Lecture)
Department Seminar, Virginia Institute of Technology
Geosciences Departmental Colloquium, Penn State
Department of Terrestrial Magnetism, Carnegie
Scripps Institution of Oceanography, UC San Diego
- 2015 AGU Annual Meeting. Session: *Rheology of the Lithosphere*
GSA Annual Meeting. Session: *Metamorphic, metasomatic and igneous processes*
SCEC Annual Meeting: Workshop on the SCEC Community Rheology Model
Gordon Research Conference on Interior of the Earth: *Mantle-Surface Connections*
Texas A&M Department Seminar
Weeks Lecture, University of Wisconsin, Madison
- 2014 AGU Annual Meeting. Session: *Rheology of Earth's mantle*
Austin Geological Society Meeting
Departmental Seminar, UT San Antonio, TX
SCEC Annual Meeting, San Geronio Pass Special Fault Study Area Workshop, CA
Solid Earth Physics Seminar, Harvard University, Boston, MA
Departmental Seminar, Texas Tech, Lubbock, TX
GSA Penrose Conference Keynote, Asheville, NC

- 2013 Division of Geological and Planetary Sciences Seminar, Caltech, CA
 Women in Mentoring Program, GSA Annual Meeting
 California State University Northridge Department Seminar, CA
- 2012 SCEC workshop on ductile rheology of continental lithosphere, USGS Menlo Park, CA
 Geological Society of America Annual Meeting, Charlotte, NC
 EGU Annual Meeting in Vienna, Austria
 Department Seminar, Virginia Institute of Technology, VA
- 2011 Geological Society of America Annual Meeting, Minneapolis, MN
 Department Seminar, Brown University, RI
 Jackson School of Geosciences, UT Austin, TX
 Utrecht University Structure & Tectonics Seminar, Holland
- 2010 Gordon Research Conference on Rock Deformation, Tilton, NH
 University of CA, Los Angeles, Seismotectonic Seminar Series
 California Institute of Technology, GeoClub Seminar Series
- 2009 SCEC Annual Meeting
- 2008 SCEC Annual Meeting

RESEARCH GRANTS

Total Amount Awarded to Date: \$1.8 million

Active

- 3/2017 - 3/2018 Southern California Earthquake Center (Lead PI, \$30,000) *Deep structure beneath the Mojave region from a high resolution passive seismic transect* (co-PIs: Vera Schulte-Pelkum, Thorsten Becker)
- 9/2017 - 9/2020 National Science Foundation—EAR Petrology/Geochemistry (Co-PI, \$335,000) *Retrograde metamorphism in the Greek Cycladic Islands as a window into exhumation mechanisms of high pressure terranes* (co-PIs: Jaime Barnes, Danny Stockli)
- 9/2016 - 9/2021 National Science Foundation— CAREER program (Sole PI: \$515,895)
 CAREER: *Rheological evolution of subduction interface shear zones: insights from exhumed subduction complexes*. Person-months per year = 0.5-1 mo. summer.
- 9/2013 - 9/2018 National Science Foundation—EAR-Tectonics (Sole PI, \$228,126)
Mechanisms and longevity of strain localization during dynamic recrystallization of olivine

Past Funded Projects

- 2018 Southern California Earthquake Center (Lead PI, \$20,000) *Dating past earthquakes revealed in two trenches across the Agua Blanca Fault, northern Baja California, Mexico*
- 2018 National Science Foundation—EAR-Tectonics (Sole PI, \$277,951)
Present-day rheology of the lithospheric mantle beneath the Mojave region from naturally deformed peridotite xenoliths
- 2017 Southern California Earthquake Center (Sole PI: \$25,000)
Holocene geologic slip rate for the Mission Creek Fault at the Three Palms site in the Indio Hills
- 2016 Earthquake Hazards Reduction Program (Sole PI: \$74,000)
Quaternary geologic slip rates along the Agua Blanca fault: implications for hazard to southern California and northern Baja California

- 2016 Southern California Earthquake Center (Sole PI, \$29,228)
Testing along-strike variations in slip rate along the Mission Creek and Banning strands of the southern San Andreas fault in the Indio Hills
- 2015 Southern California Earthquake Center (Lead-PI, \$20,000) *Collaborative Research: Re-evaluating the long term geologic slip rate of the western Agua Blanca fault near Ensenada, northern Baja California, Mexico.* (co-PI: Tom Rockwell)
- 2015 National Science Foundation- Catalyzing new international collaborations (Sole PI, \$18,357) *US-Mexico collaborative study of active faulting in Baja California, Mexico*
- 2015 Earthquake Hazards Reduction Program (NEHRP) (Sole PI, \$74,840) *Long term slip rate on the Banning strand of the southern San Andreas fault at Devers Hill*
- 2013 Southern California Earthquake Center Research Grant (\$15,000) *Long term slip rate on the Banning strand of the southern San Andreas fault at Devers Hill (renewal)* co-PIs: Tom Rockwell, Warren Sharp
- 2013 Jackson School of Geosciences Seed Grant (Sole PI, \$7,725)
Subduction in the western Mediterranean: continuous or punctuated in time?
- 2012 Southern California Earthquake Center Research Grant (Lead PI, UT Austin component: \$28,000) *Long term slip rate on the Banning strand of the southern San Andreas Fault at Devers Hill.* co-PIs: Dylan Rood, Warren Sharp
- 2011 Del Amo Foundation Research Award for work in Spain, \$3,500
- 2010 Del Amo Foundation Research Award for work in Spain, \$5,000
- 2009 Graduate Student Professionalism. College of Letters, Arts and Sciences, USC \$ 3,000
- 2008 Southern California Earthquake Center Research Grant (\$30,000) *Testing the along-strike variability in long-term slip rate on the southern San Andreas Fault.*
- 2008 Graduate Student Professionalism. College of Letters, Arts and Sciences, USC \$3,000
- 2007 Southern California Earthquake Center Research Grant (\$35,000). *A revised slip rate estimate along the Coachella Valley strand of the southern San Andreas Fault.*
- 2006 Southern California Earthquake Center Director's Fund. \$10,000
- 2004 Student Project Grant, University Corp., California State University Northridge \$750

Proposals submitted but declined funding

- 2013 National Science Foundation— Integrated Earth Systems (John Platt as lead PI)
Deep Structure of Lithospheric Fault Zones: A Systems-Based Approach
- 2015 National Science Foundation— Integrated Earth Systems (Yehuda Ben Zion as lead PI)
System Behavior of the Complex Plate Boundary Region in Southern California
- 2016 National Science Foundation— EAR Tectonics (David Young as lead PI)
Strength of the Lithospheric Mantle Wedge During Continental Collision: Insights from Exhumed Orogenic Peridotites

MENTORING AND ADVISEMENT

Post-doctoral Research Fellows

- 2015 - 2017 Nick Dygert (co-supervised with Marc Hesse), Ph.D. Brown University
Now Assistant Professor at UT Knoxville
- 2015 - 2017 Kyle Ashley, Ph.D. Virginia Tech
Now lecturer at U. Pittsburg

Current Undergraduate Student Advisees

- 2015 - 2018 Daniel Ortega-Arroyo, JSG Honors Thesis

Current Graduate Student Advisees

- 2014 - 2019 Pamela Speciale, Ph.D. Candidate (rock mechanics)
Mechanisms and longevity of strain localization during dynamic recrystallization of olivine
- 2014 - 2019 Alissa Kotowski, Ph.D. Candidate, co-advised with Stockli (structural geology)
Structural and rheological evolution of HP rocks during subduction, Syros Island, Greece
- 2016 - 2021 Carolyn Tewksbury-Christle, Ph.D. student (structural geology and geophysics) *Rheological evolution of subduction interface shear zones: insights from exhumed subduction complexes in the Klamaths, CA and the Chugach Complex, AK*

Graduated students:

- 2013 - 2018 Rachel Bernard, Ph.D. Candidate (structural geology)
Rheology and fabric in the continental lithospheric mantle from naturally deformed peridotites
- 2012 - 2018 Peter Gold, Ph.D. Candidate (active tectonics)
Late Quaternary Slip Histories and Geochronology within the Southern San Andreas Fault System in the Southwestern United States and Northern Mexico
- 2015 - 2017 Juan-Jose Muñoz, M.S. Student (active tectonics)
Holocene geologic slip rate for the Mission Creek strand of the southern San Andreas fault in the Indio Hills
- 2015 - 2017 Travis Clow, M.S. Student, co-advised with M. Helper (active tectonics)
Pleistocene to recent incision rates for the Rio Grande del Norte River Gorge, northern New Mexico
*Now PhD student at Scripps Institution of Oceanography, San Diego, CA
- 2014 -2016 Rosemary Fryer, JSG Honors Thesis: *Holocene geologic slip rate for the Mission Creek strand of the southern San Andreas fault, Indio Hills, CA.*
*Now in M.S. program at Colorado School of Mines
- 2013 - 2015 Emilie Gentry, JSG Honors Thesis: *Pseudotachylites in the footwall of the Whipple detachment fault: implications for seismicity along low angle normal faults.* Now in M.S. program at Colorado School of Mines.
- 2013 - 2015 Taylor Canada, JSG Honors Thesis: *Applying the TitanQ thermobarometer to metamorphic rocks of the Santa Rosa mylonite zone in southern California.* (Now a USGS intern)
- 2012 - 2014 Aaron Salin, JSG Honors Thesis: *Quaternary slip transfer between the Mission Creek and Banning strands of the southern San Andreas fault*
- 2012 - 2014 Kory Kirchner, M.S. student, Thesis: *Early Miocene high-pressure metamorphism in the Nevado-Filabride Complex of the Betic Cordillera, Spain: implications for subduction in the Western Mediterranean*

Committee member for:

- 2016-present James Biemillier, Ph.D. program UT Austin (Advisor: Laura Wallace)
- 2016-present Thomas Etzel, Ph.D. program UT Austin (Advisor: Liz Catlos)
- 2016-present Sarah George, Ph.D. program UT Austin (Advisor: Brian Horton)
- 2014-present Rodrigo Lima, Ph.D. program UT Austin (Advisor: Nick Hayman)
- 2014-present Miguel Cisneros, Ph.D. program UT Austin (Advisor: Jaime Barnes)
- 2013-present Owen Callahan, Ph.D. Candidate UT Austin (Advisor: Peter Eichhubl)
- 2013-present Jonathan Major, Ph.D. Candidate, UT Austin (Advisor: Peter Eichhubl)

2013-present	Ed Marshall, Ph.D. Candidate UT Austin (Advisor: Jaime Barnes)
2016-2017	Lizzy McKinnon, M.S. program UT Austin (Advisor: Randy Marrett)
2015-2016	Casey O'Brien, M.S. program UT Austin (Advisor: Peter Eichhubl)
2015-2017	Eric Wright, M.S. program UT Austin (Advisor: Peter Eichhubl)
2015-2017	Natchanan Doungkaew, M.S. program UT Austin (Advisor: Peter Eichhubl)
2013-2016	Mike Prior, Ph.D. program UT Austin (Advisor: Danny Stockli)
2013-2016	Guangliang Wu, Ph.D. Candidate UT Austin (Advisor: Luc Lavier)
2013-2015	Nikki Seymour, M.S. program UT Austin (Advisor: Danny Stockli)
2014-2015	Lauren Copley, M.S. program UT Austin (Advisor: Stephen Laubach)
2013-2014	Katelyn Atakturk, M.S. program UT Austin (Advisor: Liz Catlos)
2013-2014	Yaser Alzayer, M.S. program, UT Austin (Advisor: Peter Eichhubl)
2012-2014	Brittney Pollard, M.S. program UT Austin (Advisor: Sharon Mosher)
2012-2014	Timothy Shin, M.S. program UT Austin (Advisor: Danny Stockli)

Funding and Honors awarded to Behr Research Group Students

2017	JSG Symposium Best Represented Research Group
2016	Outstanding TA Award to Peter Gold
2016	NSF Graduate Research Fellowship to Alissa Kotowski
2016	GSA Graduate student research grant awarded to JJ Munoz, \$1,500
2016	JSG Symposium Best Represented Research Group
2015	NSF Graduate Research Fellowship to Rachel Bernard
2015	JSG Symposium Best Poster Award in Undergrad Category to Emilie Gentry
2015	JSG Symposium Best Poster Award in Early Career Grad Category to Pamela Speciale
2014	Marathon Diversity Fellowship to Rachel Bernard
2014	GSA Graduate student research grant awarded to Rachel Bernard, \$1,500
2014	UT Austin Undergraduate Research Fellowship to Emilie Gentry, \$2000
2014	UT Austin Undergraduate Research Fellowship to Taylor Canada, \$2000
2013	UT Austin Undergraduate Research Fellowship to Aaron Salin, \$1980

SERVICE

University of Texas Austin

2017	Chair of Lithospheric Dynamics Faculty Search Committee
2016 - 2017	Diversity and Inclusion Committee
2016 - 2017	JSG undergraduate curriculum review committee
2015 - 2016	JSG Ph.D. Program Review Committee
2015 - 2016	Structural Geology and Tectonics (SGT) Discipline Leader
2013 - present	Undergraduate Curriculum Committee
2014- 2015	Petrology Search Committee
2014 - 2015	Department Seminar Coordinator
2014 - 2015	Dept. of Geological Sciences Strategic Planning Committee
2013 - 2016	JSG Postdoctoral Fellowship Committee
2013	Co-leader of NeoGeo field trip for JSG undergraduate freshmen
2013	Judge for Jackson School of Geoscience Annual Research Symposium

Brown University

2011	Invited panelist for Athena Science Challenge for Brown's WISE chapter
------	--

- 2011 Invited panelist for Graduate Student Professionalism workshop, Brown
University of Southern California
- 2009 Sat on a joint committee with earth science and engineering faculty to purchase an
Electron Backscatter Diffraction and EDS system for USC
- 2009 Set up a mineral separation facility for the Earth Science department
- 2007-2008 Graduate Student Representative, Department of Earth Sciences, USC

National and international communities

- 2017 SCEC workshop co-organizer: *The SCEC Community Rheology Model* (with Elizabeth Hearn, Wayne Thatcher, Mike Oskin, Greg Hirth) (65 attendees)
- 2016 SCEC workshop co-organizer: *Processes that control the strength of faults and dynamics of earthquakes* (with David Goldsby, Eric Dunham, Greg Hirth) 110 attendees
- 2016 SCEC workshop co-organizer: *Geologic Framework for the SCEC Community Rheology Model* (with Mike Oskin, Wayne Thatcher, Liz Hearn) 65 attendees
- 2016 - present Associate Editor for AGU Journal *Tectonics*
- 2015 AGU Session Co-Convener: Active tectonics of the southern San Andreas System
- 2015 AGU Session Co-Convener: Creep deformation in the lithosphere
- 2015 AGU Session Co-Convener: The Mechanism of Tectonic Tremor
- 2015 National Earthquake Hazards Reduction Program (NEHRP) Proposal Review Panel
- 2014 - present Southern California Earthquake Center (SCEC) Planning Committee
- 2013 NSF Proposal Review Panel — Tectonics
- 2013 Session Convener, American Geophysical Union Annual Meeting
"Fault zone structure from the surface to the Lithosphere-Asthenosphere Boundary"
- 2013 Invited Speaker for CSU Northridge Louis Stokes Alliance for Minority Participation
- 2013 Invited panelist for South Central GSA Plenary Session on Careers in Geoscience
- 2012 - 2014 GSA Stephen Laubach Structural Diagenesis Award Committee member
- 2011 Judge, American Geophysical Union Annual Meeting
- 2011 Session Convener, American Geophysical Union Annual Meeting
"Magnitude of deviatoric stress in the continental lithosphere"
- 2008 Fault Systems History Workshop, Southern California Earthquake Center,
Field trip co-organizer and leader to southern San Andreas fault for 100+ attendees
- 2009 - present Reviewer for *Tectonics, Journal of Structural Geology, Geology, Geosphere, G-Cubed, Geological Magazine, Lithosphere, Journal of Metamorphic Geology, Nature, American Mineralogist, Geophysical Research Letters, Earth and Planetary Science Letters* (~10 reviews per year)
- 2011 - present Reviewer for NSF Tectonics, NSF EAR-PF, NSF Geoprisms, NSF-Geophysics (2-3 reviews per year)

FIELD EXPERIENCE

- Primary:** Western U.S. (Mojave desert, Coachella Valley); Northern Mexico (Baja California); Western Europe (Betic Cordillera in s. Spain), Syros Island (Greece); Rio Grande, New Mexico; Kenai Peninsula, Alaska;
- Secondary:** Northeastern China; Calabria, Italy; Menderes, w. Turkey; North Island, New Zealand; Morocco, N. Africa; Northern Coast Ranges, CA; Sierra Nevada, CA; N. Snake Range, NV

WORKSHOPS/ FIELD TRIPS ATTENDED

- April, 2014 GSA Penrose Conference: Linkage and Feedback in Orogenic Systems, Asheville, NC

Mar, 2014	FOP: 4D architecture of an oblique rift margin, Baja California, ME
May, 2013	SCEC workshop on ductile rheology of the southern California lithosphere
July, 2012	Teaching Structural Geology in the 21 st Century, Knoxville, TN
July, 2011	CIDER workshop at UC Berkeley
July, 2011	Penrose conference on strain localization in Cadaques, NE Spain
Sep, 2010	ADVANCE workshop at Rice University
June, 2011	Penrose conference on Cycladic Blueschist and Menderes Massif, Greece and Turkey
July, 2009	Preparing for an Academic Career in the Geosciences workshop in Las Vegas, NV
Sep, 2008	Calabria Summer School in S Italy, hosted by Columbia University

PROFESSIONAL AFFILIATIONS

Geological Society of America (GSA)
 American Geophysical Union (AGU)
 Earth Science Women's Network (ESWN)
 Sigma Xi

TEACHING

Semester	Course Name	Description	# of students	Field Trip	Instructor/ Course Rating (out of 5)
Summer, 2017	UT Field Camp	Undergrad majors course (2 weeks)	37 undergrads	Big Belts & Pioneer Mtns, MT, with M. Helper, B. Horton	4.5/4.5
Spring, 2017	Neotectonics	Graduate course	5 grads	Coachella Valley, southern CA	5.0/4.8
Summer, 2016	UT Field Camp	Undergrad majors course	44 undergrads	Pioneer Range, MT, with M. Helper, R. Marrett, T. Meckel	4.3/3.9
Spring, 2016	Tectonic Problems	Graduate course	14 grads	Newfoundland, with J. Dewey, Cloos and Stockli	5.0/4.8
Spring, 2016	Microstructure and Rock Rheology	Graduate course	7 grads 9 undergrads	Whipple Mountains, eastern CA	4.9/4.5
Fall, 2015	Structural Geology	Undergrad majors course	70 undergrads	Big Bend National Park, TX	3.9/3.7
Summer, 2015	UT Field Camp	Undergrad majors course (2 weeks)	35 undergrads	Pioneer Range, MT, with M. Helper	4.6/4.3
Spring, 2015	Neotectonics	Grad course	11 grads 5 undergrads	Coachella Valley, southern CA	4.8/4.7
Fall, 2014	Structural Geology	Undergrad majors course	67 undergrads	Big Bend National Park, TX	4.1/3.8
Summer, 2014	UT Field Camp	Undergrad majors course (2 weeks)	59 undergrads	Picuris Mountains, NM, with M. Helper	4.6/4.3
Spring, 2014	Tectonic Problems	Grad course co-taught with Stockli, Cloos, & Marrett	13 grads	Ireland, with J. Dewey, Stockli and Cloos	4.4 / 3.9

Semester	Course Name	Description	# of students	Field Trip	Instructor/ Course Rating (out of 5)
Spring, 2014	Microstructure and Rock Rheology	Graduate course	7 undergrads 5 grads	Whipple Mountains, eastern CA	5.0 / 4.9
Summer, 2013	UT Field Camp	Undergrad majors course (1.5 weeks)	35 undergrads	Pioneer Range, MT, with M. Helper, R. Marrett	4.0/4.3
Fall, 2013	Advanced Structural Geology	Grad course co-taught with P. Eichhubl	13 grads	Llano Uplift, with P. Eichhubl	4.7/4.2
Spring, 2013	Microstructures and Rock Rheology	Graduate course	2 undergrads 5 grads	San Gabriel Mountains, CA	5.0 / 5.0
Spring, 2013	Tectonic Problems	Grad course co-taught with Stockli, Cloos, & Marrett	14 grads	Cyclades, Greece with Stockli and Cloos	4.6 / 4.7

NON-ACADEMIC EMPLOYMENT

Summer 2006 Summer Research Assistant, United States Geological Survey, Pasadena, CA
 2004-2006 Part-time Staff Geologist, Alan E. Seward Engineering Geology, Santa Clarita, CA

LIST OF PUBLICATIONS

H-index since first publication date (2010) = 14 (source: GoogleScholar), 10 (source: ISI)

Total citations = [743]

[] = Number of citations #UT Post-doc †Graduate student advisee ^Undergraduate student advisee

Submitted/Under Review:

Dyger, N., Bernard, R., **Behr, W.M.**, Great Basin mantle xenoliths record active lithospheric downwelling beneath central Nevada, *submitted to* G-Cubed on July 13, 2018.

†Kotowski, A., and **Behr, W.M.**, Length-scales and types of heterogeneities along the deep subduction interface: insights from an exhumed subduction complex, *submitted to* Geosphere on July 15, 2018.

†Clow, T.W., **Behr, W.M.**, Helper, M.A., Pleistocene to recent geomorphic and incision history of the northern Rio Grande River gorge, New Mexico: constraints from field mapping and cosmogenic ³He surface exposure dating, *in review in* Geosphere as of 6/15/2018.

In Revision:

Behr, W.M., Becker, T.W., Sediment control on subduction plate speeds, *accepted with minor revision in* EPSL on May 8, 2018.

Published or in press:

22. Tokle, L., Hirth, G., Behr, W., Flow laws and fabric transitions in wet quartzite, *in press*, Earth and Planetary Science Letters.

21. **Behr, W.M.**, †Kotowski, A.J., #Ashley, K.T., 2018, Dehydration-induced rheological heterogeneity and the deep tremor source in warm subduction zones, *Geology* v. 46 (5), 475-478. [3]
20. †Bernard, R., **Behr, W.M.**, 2017, Fabric heterogeneity in the Mojave lower crust and lithospheric mantle in southern California, *Journal of Geophysical Research: Solid Earth* v. 122, doi: 10.1002/2017JB014280.
19. Cooper, F.J., Platt, J.P., **Behr, W.M.**, 2017, Rheological transitions in the middle crust: insights from Cordilleran metamorphic core complexes, *Solid Earth Discussions* v. 8 (1), p 199-215.
18. **Behr, W. M.**, and D. Smith, 2016, Deformation in the mantle wedge associated with Laramide flat-slab subduction, *Geochem. Geophys. Geosyst.*, 17, 2643–2660, doi:10.1002/2016GC006361. [10]
17. †Kirchner, K.L., **Behr, W.M.**, Loewy, S., Stockli, D., 2016, Early Miocene subduction in the western Mediterranean: constraints from Rb-Sr multi-mineral isochron geochronology, *Geophysics, Geochemistry, Geosystems*, 17, p. 1-19. [7]
16. Kidder, S., Hirth, G., Avouac, J., **Behr, W.M.**, 2016. The influence of a stepped stress history on the grain size and microstructure of experimentally deformed quartzite, *Journal of Structural Geology* 83, p. 194-206. [11]
15. Hanna, R.D., Ketcham, R.A., Zolensky, M., **Behr, W.M.**, 2015. Impact-induced brittle deformation, porosity loss, and aqueous alteration in the Murchison chondrite, *Geochemica et Cosmochimica Acta*, v. 171, p. 256-282. [14]
14. †Gold, P.O., **Behr, W.M.**, Rood, D.H., Sharp, W., Rockwell, T., Kendrick, K., ^Salin, A., 2015. Holocene geologic slip rate for the Banning strand of the southern San Andreas fault, southern California, *Journal of Geophysical Research— Solid Earth*, 120, do:10.1002/2015JB012004. [7]
13. Platt, J.P., **Behr, W.M.**, Cooper, F.J., 2015. Metamorphic core complexes: windows into the rheology of the middle to lower crust, *Geol. Soc. London*. [42]
12. **Behr, W.M.**, Platt, J.P., 2014. Brittle faults are weak, yet the ductile middle crust is strong: implications for lithospheric mechanics, *Geophysical Research Letters*, 41, doi: 10.1002/2014GL061349. [26]
11. **Behr, W.M.**, Hirth, J.G., 2014. Rheological properties of the mantle lid beneath the Mojave region in southern California, *Earth and Planetary Science Letters*, Vol. 393, p. 60-72. [23]
10. **Behr, W.M.**, Platt, J.P., 2013. Rheological evolution of a Mediterranean subduction complex, *Journal of Structural Geology*, Vol. 54, p. 136-155. [23]
9. Platt, J.P., **Behr, W.M.**, Johannesen, K.A., Williams, J., 2013. The Betic-Rif arc and its orogenic hinterland: A review. *Annual Reviews of Earth and Planetary Sciences*, Vol. 41. [132]
8. **Behr, W.M.**, Platt, J.P., 2012. Kinematic and thermal evolution during two-stage exhumation of a Mediterranean subduction complex, *Tectonics*, v. 31, TC4025. [40]
7. Platt, J.P., **Behr, W.M.**, 2011. Deep structure of lithospheric fault zones, *Geophysical Research Letters*, v. 38, L24308. [21]
6. **Behr, W.M.**, Thomas, J.B., Hervig, R.L., 2011. Calibrating Ti concentrations in quartz on the SIMS using NIST silicate glasses with applications to the TitaniQ geothermobarometer. *American Mineralogist*. [22]
5. Platt, J.P., **Behr, W.M.**, 2011. Grainsize evolution in ductile shear zones: implications for strain localization and the strength of the lithosphere, *Journal of Structural Geology*; v.33, p. 537-550. [110]
4. **Behr, W.M.**, Platt, J.P., 2011. A naturally constrained stress profile through the middle crust in an extensional terrane, *Earth and Planetary Science Letters*; v. 303, Issues 3-4, p. 181-192. [97]
3. Platt, J.P., **Behr, W.M.**, 2011. Lithospheric shear zones as constant stress experiments, *Geology*; v. 39 (2), p. 127-130. [50]
2. **Behr, W.M.**, Rood, D.H., Fletcher, K.E., Guzman, N., Finkel, R., Hanks, T.C., Hudnut, K.W., Kendrick, K.J., Platt, J.P., Sharp, W.D., Weldon, R., Yule, J.D., 2010. Uncertainties in slip rate estimates for the Mission Creek strand of the southern San Andreas fault at Biskra Palms Oasis, southern California, *GSA Bulletin*;

v. 122; no. 9/10; p. 1360–1377; doi: 10.1130/B30020.1; 15 figures; 3 tables. [80]

1. Fletcher, K.E., Sharp, W.D., Kendrick, K.J., **Behr, W.M.**, Hanks, T.C., 230Th/U dating of a late Pleistocene alluvial fan offset along the southern San Andreas fault. *GSA Bulletin*; September/October 2010; v. 122; no. 9/10; p. 1347–1359; doi: 10.1130/B30018.1; 8 figures; 3 tables; Data Repository item 2010025. [25]

Participation in Community Documents/ White Papers:

Huntington, K.W., and Klepeis, K.A., with 66 community contributors, 2018, Challenges and opportunities for research in tectonics: Understanding deformation and the processes that link Earth systems, from geologic time to human time. A community vision document submitted to the U.S. National Science Foundation. University of Washington, 84 pp., <https://doi.org/10.6069/H52R3PQ5>.

In Preparation:

†Gold, P.O., **Behr, W.M.**, Fletcher, J.M., and Rockwell, T.K., Late Quaternary slip history for the Agua Blanca Fault, northern Baja California Part 1: New geologic slip rates, *to be submitted to GSA Bulletin*.

†Gold, P.O., Rockwell, T.K., **Behr, W.M.**, Fletcher, J.M., Late Quaternary slip history for the Agua Blanca Fault, northern Baja California Part 2: New Earthquake Recurrence Records, *to be submitted to GSA Bulletin*.

†Gold, P.O., **Behr, W.M.**, Geochronology of arid region alluvial and fluvial surfaces in actively deforming zones: A review of published data, *to be submitted to Quaternary Science Reviews*.

Behr, W.M., †Munoz, J.J., †Gold, P.O., ^Fryer, R., Sharp, W.D., Holocene geologic slip rate for the Mission Creek strand of the southern San Andreas fault, Coachella Valley, CA, *to be submitted to Lithosphere*.

Bernard, R., **Behr, W.M.**, Becker, T.W., Young, D., Relationships between olivine LPO and physical deformation parameters in naturally deformed rocks and implications for mantle seismic anisotropy, *to be submitted to EPSL*.

Speciale, P., **Behr, W.M.**, Hirth, G., Tokle, L. Rates of olivine grain growth in ‘damp’ natural dunites during dynamic recrystallization and post-deformation annealing, *to be submitted to Tectonophysics*.

CONFERENCE ABSTRACTS

* *Invited*

Postdoctoral advisee

† *Graduate student advisee*

^ *Undergraduate student advisee*

2017

***Behr, W.M.**, Kotowski, A., Ashley, K. Metamorphically-induced rheological heterogeneity and the deep tremor source in subduction zones, GSA Annual Meeting in Seattle, WA.

#Ashley, K., Heaverlo, N., Law, R., **Behr, W.M.**, Morgan, S., Saint Blanquat, M., 2017, Apparent mechanical hardening of highly strained quartzite in the inner aureole of the Papoose Flat Pluton, eastern California, GSA Annual Meeting in Seattle, WA.

#Dygert, N., †Bernard, R., **Behr, W.M.**, 2017. Great Basin mantle xenoliths record deformation associated with active lithospheric downwelling, AGU Annual Meeting in New Orleans, LA.

†Bernard, R., **Behr, W.M.**, 2017. Plagioclase-dominated seismic anisotropy in the Basin and Range lower crust, AGU Annual Meeting in New Orleans, LA.

^Ortega-Arroyo, D., Behr, W.M., Gentry, E., 2017. The rock record of seismic nucleation: a case study from the Whipple Detachment Fault, eastern California, AGU Annual Meeting in New Orleans, LA.

†Gold, P., **Behr, W.**, Rockwell, T., Fletcher, J., 2017. Quaternary slip history for the Agua Blanca Fault,

northern Baja California, Mexico, AGU Annual Meeting in New Orleans, LA.

†Gold, P., **Behr, W.**, Assessing the reliability of Quaternary geochronometers by comparing independent dates from alluvial and fluvial surfaces, GSA Annual Meeting in Seattle, WA.

†Kotowski, K., **Behr, W.**, Tong, D., Lavier, L., Lengthscales and types of heterogeneities along the deep subduction interface: insights from exhumed rocks, AGU Annual Meeting in New Orleans, LA.

†Tewksbury-Christle, **Behr, W.M.**, Helper, M., Rheological properties and heterogeneities along the down-dip extent of a subduction megathrust: insights from the Condrey Mountain Schist, northern California, AGU Annual Meeting in New Orleans, LA.

Behr, W.M., Becker, T.W., 2017, Deep sediment subduction controls subduction plate speeds, AGU Annual Meeting in New Orleans, LA.

†Speciale, P., **Behr, W.M.**, Hirth, G., Tokle, L. Rates of olivine grain growth in 'damp' natural dunites during dynamic recrystallization and post-deformation annealing, AGU Annual Meeting in New Orleans LA.

2016

†Clow, T.C., **Behr, W.M.**, Helper, M.A., Gold, P.O., Stockli, D., 2016. Fluvial geomorphic and incision history of the northern Rio Grande River near Questa, New Mexico, GSA Annual Meeting in Denver, CO.

***Behr, W.B.**, Kotowski, A.J., Ashley, K., 2016. Metamorphic heterogeneity and transient rheology of the deep subduction interface, GSA Annual Meeting in Denver, CO.

†Speciale, P., **Behr, W.M.**, Hirth, G., Tokle, L., 2016. Comparison of olivine grain growth during dynamic recrystallization, post-deformation annealing, and static annealing, AGU Annual Meeting in San Francisco, CA.

Cisneros, M., Barnes, J., **Behr, W.M.**, 2016. Constraining the thermal and tectonic evolution of a greenschist facies shear zone on Syros, Greece by using stable isotopes and mineral chemistry, AGU Annual Meeting in San Francisco, CA.

***Behr, W.B.**, Smith, D., 2016, Deformation in the mantle wedge associated with Laramide flat slab subduction and implications for surface deformation during the Laramide orogeny, AGU Annual Meeting in San Francisco, CA.

†Kotowski, A., **Behr, W.B.**, Ashley, K., Stockli, D., 2016, Metamorphic heterogeneity and transient rheology of the deep subduction interface: insights from meta-mafic blueschists and eclogites exposed on Syros Island, Greece, AGU Annual Meeting in San Francisco.

†Bernard, R., **Behr, W.M.**, 2016, Constraints from naturally deformed peridotites on controls on olivine lattice preferred orientation, AGU Annual Meeting in San Francisco, CA.

†Munoz, J.J., **Behr, W.M.**, Sharp, W.D., Fryer, R., Gold, P.O., 2016, Holocene geologic slip rate for the Mission Creek strand of the southern San Andreas fault, northern Coachella Valley, CA, AGU Annual Meeting in San Francisco, CA.

†Gold, P.O., **Behr, W.M.**, Review of published Quaternary geochronologic data supports the importance of dating geomorphic surfaces using multiple geochronometers, AGU Annual Meeting in San Francisco, CA.

2015

***Behr, W.M.**, Smith, D., Bernard, R., 2015, Constraints from xenoliths on Cenozoic deformation and rheology of the western US mantle lithosphere, AGU Annual Meeting, San Francisco, CA.

***Behr, W.M.**, Smith, D., 2015. Olivine fabric transitions associated with hydration, dehydration and shear above the Farallon flat slab, GSA Annual Meeting, Baltimore, MD.

- †Speciale, P., **Behr, W.M.**, Hirth, G., Tokle, L., 2015. Longevity of strain localization associated with dynamic recrystallization of olivine in mantle rocks, AGU Annual Meeting, San Francisco, CA.
- †Gold, P.O., **Behr, W.M.**, Fletcher, J., Hinojosa-Corona, A., Rockwell, T., 2015. New Holocene geologic slip rates for the Agua Blanca Fault, Baja California, Mexico, AGU Annual Meeting, San Francisco, CA.
- †Kotowski, A., **Behr, W.M.**, Stockli, D., Ashley, K., 2015, Rheological heterogeneity along the deep subduction interface: insights from exhumed HP metamorphic rocks exposed on Syros Island, Greece, AGU Annual Meeting, San Francisco, CA.
- †Bernard, **Behr, W.M.**, Constraints from xenoliths on the rheology of the Mojave lower crust and lithospheric mantle, AGU Annual Meeting, San Francisco, CA.

2014

- ^Canada, T., **Behr, W.M.**, Stockli, L., Stockli, D., 2014. Ti-in-quartz geothermobarometry applied to metamorphic rocks of the Santa Rosa mylonite zone in southern California, American Geophysical Union Annual Meeting, San Francisco, CA.
- ^Gentry, E., **Behr, W.M.**, Wafforn, S., 2014. Diverse pseudotachylites associated with the Whipple detachment fault: implications for seismogenesis on low-angle normal faults. American Geophysical Union Annual Meeting, San Francisco, CA.
- †Bernard, B., **Behr, W.M.**, 2014. Fabrics and rheology of the Mojave lower crust and lithospheric mantle. American Geophysical Union Annual Meeting, San Francisco, CA.
- †Gold, P.O., **Behr, W.M.**, Rood, D.H., Rockwell, T., Kendrick, K., Sharp, W., 2014. Holocene slip rate on the Banning strand of the southern San Andreas fault near San Geronio Pass. American Geophysical Union Annual Meeting, San Francisco, CA.
- †Speciale, P., **Behr, W.M.**, 2014. A naturally constrained orthopyroxene piezometer. American Geophysical Union Annual Meeting, San Francisco, CA.
- ***Behr, W.M.**, Smith, D., 2014. A- to B-type olivine fabric transitions associated with hydration, dehydration and shear above the Farallon flat slab. American Geophysical Union Annual Meeting, San Francisco, CA.
- Hanna, R.D., Zolensky, M., Ketcham, R.A., **Behr, W.M.**, Martinez, J.E. Impact-induced chondrule deformation and aqueous alteration of CM2 Murchison. Annual Meetings of the Meteoritical Society, Casablanca, Morocco.

2013

- Behr, W.M.**, Smith, D., 2013. Deformation in the mantle wedge associated with Laramide flat-slab subduction. American Geophysical Union Annual Meeting in San Francisco, CA. (poster)
- Behr, W.M.**, Hirth, J.G., 2013. Rheological properties of the mantle lid beneath the Mojave region. Geological Society of America Annual Meeting in Denver, CO. (oral)
- Platt, J.P., **Behr, W.M.**, 2013. Weak faults, yet strong middle crust. American Geophysical Union Annual Meeting in San Francisco, CA. (poster)
- ^Salin, A., **Behr, W.M.**, Gold, P.O., 2013. Application of remote sensing data to correlating alluvial fans along the southern San Andreas Fault at Devers Hill, CA. American Geophysical Union Annual Meeting in San Francisco, CA. (poster)
- †Gold, P., **Behr, W.M.**, Kendrick, K., Rockwell, T., Rood, D., Sharp, W., 2013. Investigation of Quaternary slip rates along the Banning strand of the southern San Andreas Fault near San Geronio Pass. American Geophysical Union Annual Meeting in San Francisco, CA. (oral)
- †Kirchner, K., **Behr, W.M.**, Loewy, S., Platt, J.P., 2013. Timing of high pressure metamorphism in the Betic Cordillera of southern Spain: Implications for subduction in the western Mediterranean. American

Geophysical Union Annual Meeting in San Francisco, CA. (poster)

2012

- Behr, W.M.**, Hirth, G., Fischer, K., Forsyth, D., 2012. Present-day rheology of the lithospheric mantle beneath the Mojave region from naturally deformed peridotite xenoliths. AGU Annual Meeting, San Francisco, CA. (poster)
- Platt, J.P., **Behr, W.M.**, 2012. Rheology of two-phase rock systems. AGU Annual Meeting, San Francisco, CA. (poster)
- ***Behr, W.M.**, Cooper, F.J., Platt, J.P., 2012. Rheological transitions in the middle crust beneath Cordilleran metamorphic core complexes. GSA Annual Meeting, Charlotte, NC. (oral)
- Behr, W.M.**, Hirth, G., 2012. Present-day rheology of the lithospheric mantle beneath the Mojave region from naturally deformed peridotite xenoliths. Southern California Earthquake Center Annual meeting, Palm Springs, CA. (poster)
- ***Behr, W.M.**, Platt, J.P., 2012. Style of exhumation and rheological evolution of a Mediterranean subduction complex. European Geoscientists Union, Vienna, Austria. (oral)

2011

- Behr, W.M.**, Platt, J.P., 2011. Style of exhumation and rheological evolution of a Mediterranean subduction complex. American Geophysical Union Annual Meeting, San Francisco, CA. (poster)
- Behr, W.M.**, Platt, J.P., 2011. Caught in the act: evidence for seismic arrest on natural frictional-melt-bearing faults? Southern California Earthquake Center Annual Meeting, Palm Springs, CA. (poster)
- ***Behr, W.M.**, Platt, J.P., 2011. Style of exhumation and rheological evolution of a Mediterranean subduction complex. Geological Society of America Annual Meeting, Minneapolis, Minnesota. (oral)

2010

- Behr, W.M.**, Platt, J.P., 2010. A naturally constrained stress profile through the middle crust in an extensional terrane. AGU Annual meeting, San Francisco, CA. (poster)
- Platt, J.P., **Behr, W.M.**, 2010. Mechanical and microstructural evolution of ductile shear zones: implications for the deep structure of lithospheric faults. AGU Annual Meeting, San Francisco, CA. (oral)
- Behr, W.M.**, Platt, J.P., 2010. A naturally constrained stress profile through the middle crust in an extensional terrane. Gordon Research Conference on Rock Deformation, Tilton, NH. (oral)
- Behr, W.M.**, Thomas, J.B., Hervig, R.B., 2010. Calibrating Ti concentrations in quartz on the SIMS using NIST silicate glasses with applications to the TitaniQ geothermobarometer, Goldschmidt Annual meeting, Knoxville, Tennessee. (poster)
- Behr, W.M.**, Platt, J.P., 2010. Naturally constrained profiles of the strength of the middle crust near the brittle-ductile transition (Sierra Alhamilla, S. Spain), Geophysical Research Abstracts, Vol. 12, EGU2010-162. (poster)
- *Platt, J.P., **Behr, W.M.**, 2010. Microstructural evolution and rheology of ductile shear zones: implications for lithospheric strength. Geophysical Research Abstracts, Vol. 12, EGU2010-6794. (oral)

2009

- Behr, W.M.**, Platt, J.P., 2009. A naturally constrained profile of the strength of the middle crust near the brittle-ductile transition (Whipple Mountains, E. CA), in Abstract for Programs for the AGU Annual Meeting, San Francisco, CA. (poster)
- Behr, W.M.**, Platt, J.P., 2009. A naturally constrained profile of the strength of the middle crust near the

brittle-ductile transition (Whipple Mountains, E. CA), in Abstract for Programs for the GSA Annual Meeting, Portland, Oregon. (poster)

Fletcher K, Sharp W, **Behr W**, Le K, Rood D, Finkel R, Hanks T, Kendrick K, Oskin M & Rockwell T. Dating Quaternary Alluvial Fans via U-Series on Pedogenic Carbonate and ^{10}Be Surface Exposure Ages. 2009 Goldschmidt Conference. (poster)

*Balco G., Rood D.H., Morgan D., **Behr W.**, 2009. Forward models of geomorphic processes used to interpret complex cosmogenic-nuclide data sets. 2009 Goldschmidt Conference. (oral)

Platt, J.P., **Behr, W.M.**, 2008. Extensional exhumation in the Franciscan Eastern Belt blueschists, northern Coast Ranges, California, in Abstracts for Programs at the 103rd Annual Meeting of the Cordilleran Section, GSA, Las Vegas, Nevada. (oral)

2008

Behr, W.M., Alpert, Lisa A., Economos, Rita, Johanesen, Katharine, Platt, John P., Zhang, Tao, 2008. Microstructural analysis of deformation and metamorphism along the Vincent thrust in the eastern San Gabriel Mountains, California, in Abstracts for Programs at the 103rd Annual Meeting of the Cordilleran Section, GSA, Las Vegas, Nevada. (oral)

Behr, W.M., D.H. Rood, K.E. Fletcher, N. Guzman, R. Finkel, T.C. Hanks, K.W. Hudnut, K.J. Kendrick, J.P. Platt, W.D. Sharp, R.J. Weldon, and J.D. Yule, "Uncertainties in slip rate estimates for the Mission Creek strand of the southern San Andreas fault at Biskra Palms Oasis", 2008 SCEC Annual Meeting poster 2-047. (oral)

2007

Behr, W.M., Hudnut, K.W., Platt, J.P., Hanks, T.C., Kendrick, K.J., Sharp, W.D., Fletcher, K.E., Finkel, R., Rood, D.H., 2007. A revised slip rate estimate for the Mission Creek strand of the southern San Andreas fault at Biskra Palms Oasis, Indio, California, in Abstracts for Programs at the 2007 Annual Meeting of the Southern California Earthquake Center in Palm Springs. (oral)

2006

Behr, W.M., Hudnut, K., Yule, J.D., 2006. Virtual exploration of the southern San Andreas Fault using a combination of high resolution LiDAR from the B4 data set and multispectral imagery from the MODIS/ASTER airborne simulator (MASTER) instrument, in Abstracts for Programs at the 2006 Annual Meeting of the Southern California Earthquake Center in Palm Springs. (poster)

Behr, W.M., Bennett, S.E.K., Dunne, G.C. 2006. Evidence for multiple strands of the Late Paleozoic truncational fault of North America within exposures of the Kennedy Meadows Pendant: Sierra Nevada, CA, in Abstracts for Programs at the 102nd Annual Meeting of the Cordilleran Section, GSA, 81st Annual Meeting of the Pacific Section, AAPG, and the Western Regional Meeting of the Alaska Section, SPE (8–10 May 2006). (poster)

Burciaga, A., Yule, D., Howland, C., **Behr, W.**, Dawson, S., and Lee, V, 2004. A 2000 Year-Long Record of Large Earthquakes on the San Bernardino Strand of the San Andreas Fault, San Geronio Pass, Southern California, in, Abstracts for Programs at the 2004 Annual Seismological Society of America meeting in Palm Springs. (poster)