MICHAEL R. BRUDZINSKI

CURRICULUM VITAE

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APPOINTMENTS

Professor, Geology Department, Miami University, Ohio, 2014-present.
Co-owner, GeoSeismic Analytics LLC, 2014-present.
Associate Professor, Geology Department, Miami University, Ohio, 2010-2014.
Affiliate Professor, Physics Department, Miami University, Ohio, 2008-present.
Assistant Professor, Geology Department, Miami University, Ohio, 2005-2010.

EDUCATION

Ph.D., Geophysics, University of Illinois, Urbana, IL, 2002.
Thesis: Seismic studies of subducted lithosphere beneath Fiji: Evidence for a petrologic anomaly.
B.S., Physics and Marine Geophysics, Eckerd College, St. Petersburg, FL, 1995.
Thesis: Ground conductivities and salt-water intrusion near the Cross-Florida Barge Canal.

RESEARCH INTERESTS

- Computational Strategies for Detecting and Characterizing Earthquakes
- Geomechanical Behavior of Faults Influenced by Changing Fluid Pressure
- Improving Hazard Warnings for Vulnerable Populations
- Relationships between Earthquakes, Slow Slip, and Fault Tremor

EDUCATIONAL INTERESTS

- Assessment of Active Learning in Hybrid and Online Courses
- Fostering Quantitative Literacy and Spatial Reasoning
- Improving Public Outreach through More Effective Teachable Moments
- Pathways to Energy and Environmental Careers

SERVICE INTERESTS

- Outcomes and Assessment to Better Achieve Collective Impact
- Mentoring Early Career Scientists
- Belonging, Accessibility, Justice, Equity, Diversity, and Inclusion
- Undergraduate Research Experiences

PREVIOUS RESEARCH EXPERIENCE

Research Scientist, Dept. of Geology & Geophysics, University of Wisconsin, 2004-2005.
Weeks Postdoctoral Research Fellow, Dept. of Geology & Geophysics, University of Wisconsin, 2002-2004.
Research Assistant, Department of Geology, University of Illinois, 1995-2002.
Research Technician, Department of Geophysical Sciences, University of Chicago, 1995-1997.
Research Assistant, Departments of Physics and Marine Science, Eckerd College, 1992-1995.

PREVIOUS TEACHING EXPERIENCE

Creator and Discussion Leader, Subduction Zone Group, University of Wisconsin, 2003.
Teaching Assistant, Department of Geology, University of Illinois, 1997-1999.
Ford Scholar Teaching Apprentice, Department of Marine Science, Eckerd College, 1994-1995.

Teaching Aide, Department of Physics, Eckerd College, 1994-1995.

HONORS

Top Author, SERC Teach the Earth Top Contributors, 2023.
Distinguished Scholar Award, Miami University, 2019.
Outstanding Service, Miller Center for Student Disability Services, Miami University, 2019.
Advanced Online Teaching Certificate, Online Learning Consortium (Sloan-C), 2014.
Faculty Early Career Development (CAREER) Award, NSF, 2009.
Rated in the Top 10% of All Instructors, University of Illinois, 1997, 1999.
Outstanding Teaching Assistant, Department of Geology, University of Illinois, 1999.
Graduate Teacher Certificate and *Advanced Graduate Teacher Certificate*, University of Illinois, 1999.
Honorable Mention, National Science Foundation Graduate Research Fellowship, 1995, 1996.
Valedictorian, Eckerd College, 1995.
Goldwater Scholar, Eckerd College, 1994.

ADVISING OF STUDENT RESEARCH

Mehrnaz Khalkhali, Doctoral Student, Geology, Miami U., 2022-present.
Wilnelly Ventura-Valentín, Doctoral Student, Geology, Miami U., 2021-present.
Masters Student, Geology, Miami U., 2019-2021.
Shannon Fasola, Doctoral Student, Geology, Miami U., 2016-2020; now CRESCENT Earthquake Center.
Masters Student, Geology, Miami U., 2014-2016.
Rob Skoumal, Doctoral Student, Geology, Miami U., 2014-2016; now at USGS-Menlo Park.
Masters Student, Geology, Miami U., 2012-2014.
Stephen Holtkamp, Doctoral Student, Geology, Miami U., 2009-2013; now Alaska Earthquake Center.
Undergraduate Student, Physics, Miami U., 2005-2007.
Stefany Sit, Doctoral Student, Geology, Miami U., 2008-2013; now Clin. Asst. Prof. at U. of Ill.-Chicago.
IRIS Undergraduate Intern, Physics, Lawrence U., 2007-2008.
Devin Boyarko, Doctoral Student, Geology, Miami U., 2009-2013; now at Chevron.
Masters Student, Geology, Miami U., 2007-2009.

Sharif Coker, Masters Student, Geology, Miami U., 2024-present.
Derrick Gossett, Masters Student, Geology, Miami U., 2021-2023; Now at Air Force Research Lab.
Sutton Chiorini, Masters Student, Geology, Miami U., 2017-2019; Now at Nat. Geospat.-Intel. Agency.
Sarah Smith, Masters Student, Geology, Miami U., 2015-2017; Now at Lettis Consultants International.
Lizzie Abbott, Masters Student, Geology, Miami U., 2012-2014; Now at Geol. & Nuclear Sciences, NZ.
IRIS Undergraduate Intern, Geology, Harvard U., 2011-2012.
Bart Rasor, Masters Student, Geology, Miami U., 2012-2014; Now at Continental Resources, Inc.
Patrick Karel, Masters Student, Geology, Miami U., 2009-2012; now at ENSCO, Inc.
Hector Hinjosa, Masters Student, Geology, Miami U., 2007-2009; now at Cordillera Geo-Services.

McKenna Ridgley, Undergraduate Student, Geology, Miami U., 2024-present.
Erin Szucs, Undergraduate Student, Geology, Miami U., 2024-present.
Lina Miesse, Undergraduate Student, Geology, Miami U., 2024-present.
James Kirchenwicz, Undergraduate Student, Geology, Miami U., 2023-present.
Kailee Gomez, Undergraduate Student, Geology, Miami U., 2023-present.
Mayme Kalmer, Undergraduate Student, Geology, Miami U., 2022-present.
Jack Gugino, Undergraduate Student, Geology, Miami U., 2022-2024.
Anthony Bennett, Undergraduate Student, Geology, Miami U., 2020-2023.
Mason Pence, Undergraduate Student, Geology, Miami U., 2022-2023.
Lily Gauer, Undergraduate Student, Geology, Miami U., 2019-2021.

Grant Taylor, Undergraduate Student, Geology, Miami U., 2019-2021.
Nathan Cardona, Undergraduate Student, Geology, Miami U., 2019-2020.
Seth Young, Undergraduate Student, Geology, Miami U., 2019-2020.
Rosie Ries, Undergraduate Student, Geology, Miami U., 2017-2020, now at Stanford U.
Teresa Langenkamp, Undergraduate Student, Geology, Miami U., 2016-2019, now at Colorado State U.
Erica Loughner, Undergraduate Student, Geology, Cedarville U., 2017-2018.
Joseph Rakowski, Undergraduate Student, Geology, Miami U., 2016-2018, now at InMoment.
Nick Baxter, Undergraduate Student, Geology, Miami U., 2016-2017, now at City of Monroe.
Steven Marshall, Undergraduate Student, Geology, Miami U., 2016-2017, now at Ball Aerospace.
Austen Rubenstein, Undergraduate Student, Geology, Miami U., 2015-2017, now at ATC Env. Consult..
Max Leveridge, Undergraduate Student, Geology, Miami U., 2015-2018, now at OSU Ortho Surgery.
Noorulan Ghouse, Undergraduate Student, Geology, Miami U., 2010-2014, now at Oklahoma G.S.
Katie Solada, Undergraduate Student, Geology, Miami U., 2010-2014, now at U. of Oregon.
Sarah Recker, Undergraduate Student, Geology, Miami U., 2010-2014, now at RegattaCentral.
Becca King, Undergraduate Student, Environmental Science, 2012-2013, now a Software Eng. Fellow.
Nick Kelly, Undergraduate Student, Zoology, Miami U., 2010-2013, now at Ohio State U.
Kristen Schlanser, Undergraduate Student, Geology, Miami U., 2009-2012, now at U. of Wyoming.
Denis Pleimling, Undergraduate Student, Physics, Miami U., 2008-2009.
Timothy Carey, Undergrad. Student, Envi. Science, Miami U., 2007-2008, now at Teach for America.

David Watkins, IRIS Undergraduate Intern, Geology, Indiana U. of Penn., 2013-2014, now at U. of Wisc.
Calvin Johnson, IRIS Undergraduate Intern, Geology, Penn State U., 2012-2013, now at GEOLOG Int.
Brady Flinchum, IRIS Undergraduate Intern, Geology, U. of Nevada-Reno, 2011-2012, now at U of WY.
Martin Schwed, IRIS Undergraduate Intern, Geology, Trinity U., 2010-2012, now at Chevron.
Kevin Jensen, IRIS Undergraduate Intern, Geology, U. of Utah, 2008-2009;
Masters Student, Geology, U. of Utah, 2009-2011.
Robert Anthony, IRIS Undergraduate Intern, Physics, Ohio Wesleyan U., 2009-2010, now at USGS-ABQ.

Frances Skomurski, Undergraduate Student, Geology, U. of Illinois, 1998-2001.
Laura Swan, Undergraduate Student, Geology, U. of Illinois, 1999-2001.

EXTERNAL GRANTS

(Total at Miami: $2,925,865)

Collaborative Research: Decoding Seismic Conversations: Facilitating Interdisciplinary Investigation of Magnitude Clustering Across Time and Space, PI, NSF-EAR, 2026-2028, $264,021, pending.
SZ4D - Interconnected Events in Context, co-PI, NSF-EAR, 2025-2030, $113,869, pending.
Automated Detection and Characterization of Swarms and Mainshock-Aftershock Sequences in Alaska, PI, USGS-EHP, 2025-2026, $83,802, pending.
Technical Assistance Partnership to Advance Carbon Capture, Utilization, and Storage in Michigan: A Roadmap to Carbon Capture, Utilization, and Storage, co-PI, DOE-FECM, 2024-2027, $451,350, recommended for funding.
Increasing Coordination, Accessibility, and Adoption of Multi-Hazard Decision Support Tools and Services, PI, NSF-TIP, 2024-2025, $75,867.
Assessment of Experiences, Interest, and Accessibility Associated with Hazard Warnings in Cascadia to Improve Equity in Disaster Risk Reduction, PI, CRESCENT, 2024-2025, $29,970.
Investigating Access and Barriers to Use of the San Diego Emergency App for ShakeAlert Through a Multi-Methods Approach: Collaborative Research with Miami University and the EarthScope Consortium, PI, USGS-EHP, 2023-2024, $55,550.
Collaborative Research: AccelNet-Implementation: SZNet - A Coordinated Global Effort to Understand Subduction Geohazards, Senior Personnel, NSF, 2023-2027.

Collaborative Research: The Math Your Earth Science Majors Need, When They Need It: Improving Quantitative Skills in The Future Earth Science Workforce, Senior Personnel, NSF, 2022-2025.

Collaborative Research: Subduction Zones in 4 Dimensions Catalyst, Senior Personnel, NSF, 2022-2026.

Center for Collective Impact in Earthquake Science (C-CIES): Building Inclusive Excellence, Diversity, Equity, and Community into Earthquake Science, Senior Personnel, NSF, 2022-2024.

Collaborative Research: Using Tutorial-Based Active E-Learning to Broaden Participation and Enhance Scientific Computing Skills in a Seismology Context, PI, NSF, 2021-2024, $262,507.

Collaborative Research: Investigating Time-Varying Relationships Between Interseismic Coupling, Slow Slip, and Seismicity Along the Mexican Megathrust and Sliver Fault, PI, NSF, 2020-2024, $167,335.

Assessment of User's Understanding of Real-Time Earthquake Information Products: Collaborative Research with Miami University and Temple University, PI, USGS-NEHRP, 2020-2021, $37,394.

Understanding and Promoting Spatial Learning Processes in the Geosciences, Collaborator, SBE-1640800, 9/1/2016-8/31/2020, $8,000.

Investigating Relationships between Hydraulic Fracture Injection Parameters and Induced Seismicity, PI, USGS-NEHRP 2018-0184, 8/1/2018-7/31/2019, $71,978.

Collaborative Research: Improved Characterization of Slow Slip in Cascadia by Stacking GPS on Tremor Times, PI, USGS-NEHRP, 2017-2018, $19,030.

Investigating Induced Seismicity Associated with Hydraulic Fracture Stimulations in Oklahoma, PI, USGS-NEHRP 2017-0124, 2017-2018, $59,899.

Utica Shale Energy and Environment Laboratory, Subcontract from OSU, DOE, 2017-2021, $99,999: Recommended for funding pending site selection.

Does Proximity of Hydraulic Fracturing and Wastewater Disposal to Basement Increase the Likelihood of Induced Seismicity in the Central and Eastern US?, PI, NSF EarthScope 1614942, 7/1/16-6/30/20, $358,584.

Discerning and Characterizing Induced Seismicity in North Texas using Multistation Template Matching, PI, USGS-NEHRP 2016-0172, 2016-2017, $50,737.

Optimizing Multi-Station Template Matching to Identify and Characterize Induced Seismicity in and Around Ohio, PI, USGS-NEHRP 2015-0176, 2015-2016, $46,769.

Collaborative Research: Deep Megathrust Conditions by Comparing Seismicity Rates and Source Parameters with Tremor, Slow Slip, and the Mw 7.4 Ometepec, Mexico earthquake, PI, NSF, 2013-2017, $161,031.

Integrating Observations and Modeling of Tremor and Slip in Subduction Zones to Discern Controls on Fault Slip Behavior, Sponsor/Host for Colella, NSF Postdoc Fellow, 2012-2014: $6000.

Collaborative Research: Delineating future Cascadia megathrust rupture with continuous GPS and seismic recordings of Episodic Tremor and Slip, PI, USGS, 2011-2012, $28,143.

Technology Assistance with Implementation and Operation of Transportable Array Element of USArray and EarthScope, SubAwardee, NSF-IRIS, 2011: $33,867.

Resolving Structural Controls of Episodic Tremor and Slip Along the Length of Cascadia, PI, NSF, 2009-2010, $29,723.

CAREER: Implementing Inquiry-Based Approaches in Geoscience Education and Research, PI, NSF, 2009-2014, $515,952.

Collaborative Research: An Integrated View of Subduction Along Cascadia: Episodic Tremor and Slip Linked to 3-D Structure and Hazards, PI, NSF, 2007-2010, $196,055.

Collaborative Research: A study of deep subduction integrating broadband seismology and mineral physics, PI, NSF, 2006-2010, $203,820.

Incorporated Research Institutions for Seismology Summer Undergraduate Internship Program, Host, NSF-REU, 2007: $6,738; 2008: $1000; 2009: $1000; total: $8,738.

Collaborative Research: High-precision teleseismic relocation and tomography for the M 9 and M 8.7 Sumatra great earthquake sequences, PI, NSF, 2006-2008, $22,595.
Collaborative Research: A study of transient aseismic slip and non-volcanic tremor in southern Mexico with large aperture seismic and GPS arrays, PI, NSF, 2005-2009, $143,439.
International Collaboration for Study of Deep Subduction Using Seismic Arrays in New Caledonia and Vanuatu, PI, NSF, 2005-2006, $35,302.
Theoretical and Experimental Institute Student Travel Grant, NSF-MARGINS, 2000.
Workshop Scholarship, Incorporated Research Institutions for Seismology (IRIS), 1996, 1997, 2000.
Foundation Scholarship, Society of Exploration Geophysicists, 1996-2000.
Science and Engineering Scholarship, Barry Goldwater Foundation, 1993-1995.

INTERNAL GRANTS

(Total at Miami: $1,591,272)

The Miami University Data Analytics Initiative, co-PI, Boldly Creative - Strategic Academic Enrichment Initiative, 2019-2022, $1,392,511.
Teaching and Learning Analytics Community, Miami University, 2019-2020, $1000.
Grant to Promote Research, Committee for Faculty Research, Miami Univ., 2018-2019 $3000.
Student Technology Fee Grant, Miami Univ., 2008: $15,000; 2011: $9228; 2016: $36,136; 2017: $66,929, 2023: $14,848.
Howe Writing Center Departmental Grant, 2013-2014, $5000.
CAS e-Learning Faculty Learning Community, 2013-2014, $2000.
Top25 e-Learning Proposal, Miami University, 2013-2015, $5000.
Top25 e-Learning Faculty-Staff Learning Community, 2012-2013, $500.
CAS Quantitative Literacy Workshop, 2011, $1000.
CAS Writing Competency Workshop, 2010, $3000.
Alumni Teaching Scholars Faculty Learning Community, Miami University, 2009-2010, $200.
Top25 Introductory Course Redesign, Geology Department, Miami University, 2008-2010, $35,000.
Parents Fund Award, Miami University, 2008, $2471.
PREP Publication Grant, 2005, $500; 2007, $500.
Summer Research Grant for New Faculty, Miami University, 2006, $4000.
College of Arts & Science Small Instructional Grant, Miami University, 2005, $1400.
New Faculty Teaching Enhancement Program Instructional Development Grant, 2005, $400.
Texas-Louisiana Fellowship, Department of Geology, University of Illinois, 1997-1998.
Alumni Fellowship, Department of Geology, University of Illinois, 1995-1996.

STUDENT/POSTDOC LED GRANTS AND AWARDS

(Total at Miami: $675,862)

NSF Graduate Research Fellowship, Honorable Mention, 2020 (R. Ries).
Seismological Society of America, Eastern Section, Best Student Presentation, 2019 (R. Ries), 2022 (D. Gossett).
Astronaut Scholarship, 2019, $10,000 (R. Ries).
Goldwater Scholarship, 2019, $7500 (R. Ries).
Provost Student Academic Achievement Award, 2019 (R. Ries).
Tracking microseismicity and injection induced deformation using distributed acoustic sensing at the Decatur, IL, CO_2 sequestration demonstration site, R. Skoumal, USGS Mendenhall Fellowship, 2016-2018: $188,000.
Ohio Department of Natural Resources Ohio Rocks! Grant, 2018, $2000 (S. Chiorini).
Seismological Society of America Geosciences Congressional Visit Day Grant, 2018, $2000 (S. Chiorini).

Geophysical Society of Pittsburgh Scholarship, 2016, $2000, 2017, $2000, 2018, $2000 (S. Fasola).
Stress drop variability depending on operational parameters for induced seismicity in Ohio, M. Kozlowska, Kosciuszko Foundation Grant, 2016-2017: $12,000.
Integrating Fault Slip Observations of Earthquake Swarms, Tectonic Tremor, and Slow Slip in Alaska and the Aleutians and Their Potential Relation to Large Earthquakes, S. Holtkamp, NSF Postdoc Fellow at U. of Alaska-Fairbanks, 2013-2015: $170,000.
Integrating Observations and Modeling of Tremor and Slip in Subduction Zones to Discern Controls on Fault Slip Behavior, Harmony Colella, NSF Postdoc Fellow at Miami, 2012-2014: $170,000.
Society of Exploration Geophysicists (SEG) Foundation Scholarship, 2010, $3000 (P. Karel); 2013, $5450, 2014, $10,000 (R. Skoumal).
SEG/ExxonMobil Student Education Program Grant, 2013 (R. Skoumal).
American Association of Petroleum Geologists (AAPG) Best Student Paper, 2013 (S. Holtkamp).
AAPG Matson Award for Best Annual Meeting Paper, 2013 (S. Holtkamp) $3000.
Aseismic Fault Slip Processes through Space-Based and Seismic Observations, Stephen Holtkamp, NASA Earth and Space Science Fellowship, 2009-2010, $30,509; 2010-2011, $30,509.
Undergraduate Summer Scholar Research Program, Miami University, 2006 (S. Holtkamp) $3600; 2011 (K. Schlanser) $3600; 2013 (K. Solada) $3600; 2016 (N. Baxter) $3600.
Gerber Inquiry Award, Miami University, 2016 (M. Leveridge): $530.
American Geophysical Union Fall Meeting Best Student Presentation, 2012 (S. Holtkamp, S. Sit).
Miami GLG Dept. Ph.D. Student Award (2014-): R. Skoumal (2016), S. Fasola (2018, 2020).
Miami GLG Dept. M.S. Student Award (2014-): R. Skoumal (2014), S. Fasola (2016), S. Smith (2017).
Doctoral-Undergraduate Opportunities for Scholarship, Miami University, 2010 (K. Schlanser and D. Boyarko), $800.
Undergraduate Research Award, Miami University, 2007 (T. Carey): $420; 2010 (K. Schlanser): $200; 2015 (M. Leveridge): $530.
Dean's Scholar Award, $1200, 2006 (S. Holtkamp), 2007 (E. Davis), 2018 (T. Langenkamp), 2019 (R. Ries).

COMMUNITY ENGAGEMENT

Coach, Middle school STEM skill building through an Ohio First Lego League Robotics team, 2020-2023.
Saltwater Disposal Permit Review Committee, Railroad Commission of Texas, 2018-present.
School Science Outreach both In Person and via Skype-A-Scientist: Talawanda Middle School (OH), Ross Middle School (OH), Morgan Elementary (OH), Malcom Public Schools (NE), First Baptist Church Hamilton (OH), C.C.A. Baldi Middle School (PA), Lafayette Upper Elementary School (VA), Eastview Middle School (IL), 2018-present.
Informal Consultant, Energy industry, Geophysical service providers, Water management, State and local governments, Insurance providers, 2014-present.
Investigation of the Potential for Oil and Gas Activities to Induce Seismicity in Ohio, Ohio Department of Oil and Gas, 2014-present.
Rapid Analysis and Assessment of Earthquakes in Ohio, Ohio Geological Survey, 2010-present.
Co-Author, Potential Injection-Induced Seismicity Associated with Oil & Gas Development: A Primer on Technical and Regulatory Considerations Informing Risk Management and Mitigation, published by the StatesFirst initiative of the Groundwater Protection Council and the Interstate Oil and Gas Compact Commission, 2015; second edition, 2017; third edition, 2021.
Congressional Briefing Presenter, EarthScope Discoveries, U.S. Capitol, 2019.
Technical Advisor, Induced Seismicity Working Group, StatesFirst initiative of the Groundwater Protection Council and the Interstate Oil and Gas Compact Commission, 2015-present.

Student Rob Skoumal hosted a Reddit AMA session about our study of seismicity induced by hydraulic fracturing, which became the fourth most popular in the entire science category, 2015.

ACADEMIC SERVICE

Chair, Engagement Activities Advisory Committee, EarthScope Consortium, 2023-present.
Steering Committee, Subduction Zones in 4 Dimensions (SZ4D) Research Coordination Network, 2021-present.
President, Seismological Society of America, Eastern Section, 2023-present.
Graduate Admissions Committee, Geology Dept., Miami University, 2022-present.
Unlearning Racism in Geoscience Pod, Geology Dept., Miami University, 2020-present.
Diversity, Equity, and Inclusion Committee, Geology Dept., Miami University, 2020-present; chair 2023-present.
Certified Advancement Partner, University Advancement, Miami University, 2024.
Executive Committee, Subduction Zones in 4 Dimensions (SZ4D) Research Coordination Network, 2021-2024.
Collective Impact Committee, SZ4D Research Coordination Network, 2022-present, co-chair 2022-2024.
Session Co-Organizer, Collective Impact in Earthquake Science, SSA National Meeting, 2023.
Town Hall Organizer, Toward an SZ4D Science Center: Review of Science Priorities, Effort Progress, and Upcoming Activities, AGU Fall Meeting, 2022; GSA Annual Meeting, 2023.
Special Interest Group Lead, Subduction Zones in Four Dimensions: Progress in Developing the SZ4D Initiative, SAGE/GAGE Workshop, 2022; 2023.
Special Interest Group Organizer, Teaching geophysics in-person and online: Sharing existing resources and soliciting instructional support needs, SAGE/GAGE Workshop, 2022.
Co-Chair, Committee on Committees, SZ4D Research Coordination Network, 2022-2023.
Tenure and Promotion Committee, College of Arts & Science, Miami University, 2021-2023.
IRIS Education and Outreach Steering Committee, 2021-2022; *Chair,* 2022.
Vice President, Seismological Society of America, Eastern Section, 2021-2023.
Co-Chair, Building Equity and Capacity Integrative Group, SZ4D Research Coordination Network, 2020-present.
Diversity, Equity, and Inclusion Task Force, Seismological Society of America, 2020-2021.
Secretary, Seismological Society of America, Eastern Section, 2019-2021.
Honors Canvassing Committee, AGU Seismology Section, 2018-2021.
Chapter Co-Advisor, Society for the Advancement of Chicanos/Hispanics and Native American Scientists, Miami University, 2018-2021.
High Performance Computing Steering Committee, Miami University, 2014-present.
Instructor, Incorporated Research Institutions for Seismology (IRIS) Summer Internship, 2014-present.
Outcomes and Assessment Committee, Chair, Geology, 2010-present.
Make it Miami! Accepted Student Program, Faculty Welcome and Testimonial, 2010-present.
Promotion and Tenure Committee, Geology, 2010-present, chair in 2016, 2023-present.
Liberating Education Presentation, New Student Orientation, Miami University, 2008-present.
Proposal Reviewer, National Science Foundation, USGS NEHRP, NSERC-Canada, 2002-present.
Manuscript Reviewer, BSSA, EPSL, Geology, GRL, JGE, JGR, PEPI, Nature, Science, Sci. Adv., SRL, Rev. of Geophy., 2002-present.
Science Coordination Committee, Seismology and Geodesy Facilities for the Advancement of Geoscience Joint Workshop, 2019-2021.
Meeting Co-Chair, SSA Eastern Section First Online Annual Meeting, 2020.
Big Data Capital Campaign Workgroup, Miami University, 2018-2020.
Chair of IRIS Working Group to support Central and Eastern US Seismic Network, 2015-2019.

Session Chair, SPE/SEG Workshop: Injection Induced Seismicity, 2019.
Session Chair, SSA Eastern Section Meeting, 2019.
CAS Representative to Graduate Council, Miami University, 2017-2019.
EarthScope Steering Committee, 2016-2019.
EarthScope Education and Outreach Subcommittee, 2016-2019.
Presenter and Break-Out Discussion Lead, Advancements in Machine Learning, Data Analytics, and Predictive Modeling for Real-Time Analysis of Subsurface Data, Department of Energy, 2018.
IRIS Data Products Working Group Chair, 2013-2018.
External Proposal Review Panel, USGS, 2009, 2015, 2018.
Learning Management System Steering Committee, Miami University, 2014-2017.
Instructor, EarthScope USArray Data Processing and Analysis Short Course, 2011-2017.
Convener, Induced Seismicity Session, IRIS Workshop, 2016.
Geoscience Literacy Assessment Project – NSF STEM Talent Expansion Program, 2012-2016.
Team Leader, Top25 Introductory Course Redesign, Geology Dept., Miami University, 2007-2015.
EarthScope Transportable Array Working Group, 2010-2015.
Site Visit Committee, Natural Sciences and Engineering Research Council of Canada, 2015.
Petrology Faculty Search Committee, Miami University, 2014.
Chemistry and Biochemistry Program Review Committee, Miami University, 2014.
Learning Management System Review Committee, Miami University, 2014.
EarthScope Plate Boundary Observatory Advisory Committee, 2010-2013.
IRIS Data Management System Steering Committee, 2010-2014, *Vice-Chair:* 2013-2014.
External Proposal Review Panel, NSF, 2007, 2009, 2010-2012, 2013.
Academic Achievement Assistantship, Graduate School, Miami University, 2013.
Red Carpet Day for Prospective Students (High Ability Seniors), Faculty Panel: 2012, *Lecture:* 2013.
Advanced Placement Environmental Science Standard Setting Panel, College Board, 2011-2012.
Development Team for CAS Writing Competency Requirement, Chair, Geology, 2010-2012.
Development Team for CAS Quantitative Literacy Requirement, Geology, 2010-2012.
Science Program Co-Chair, Seismological Society of America Annual Meeting, 2011.
Harassment/Discrimination Review Panel, Miami University, 2010-2011.
Committee for the Enhancement of Learning and Teaching, Miami University, 2008-2011.
Faculty Advisor, Miami University Geological Society, Miami University, 2007-2011.
Science Program Co-Chair, EarthScope Institute on the Spectrum of Fault Slip Behaviors, 2010.
Science Program Co-Chair, Incorporated Research Institutions for Seismology Annual Workshop, 2010.
Instructor, Engaged Learning Session, MADE@Miami Multicultural, International, and Miami Access Student Orientation, 2009-2010.
Community Of Practice on Engaged Learning (COPEL), Miami University, 2008-2010.
Convener, Pardee Symposium, Intraplate Magmatic Growth and Tectonic Modification of a Continent: Case Study in the Pacific Northwest, Geological Society of America Meeting, 2009.
Facilitator, Bicentennial Symposium on the Engaged University, Miami University, 2009.
Planning Committee, NSF-EarthScope and NSF-Margins Facility Enhancement, 2009.
Presenter, Report on EarthScope Science Results, NSF, 2009.
External Program Review Panel, IRIS Education and Outreach, 2009.
Small Group Co-Chair, Long Range Science Planning for Seismology Meeting, NSF, 2008.
Mentor, First Year Students Faculty Mentoring Program, Miami Office of Diversity Affairs, 2007-2008.
Audience Response System Project Committee, Miami University, 2007-2008.
Convener, Mechanisms of Deep Earthquakes Session, American Geophysical Union Fall Meeting, 2007.
Presenter, Graduate Student Teaching Enhancement Program, Miami University, 2005-2006.
Participant, New Faculty Teaching Enhancement Program, Miami University, 2005.

Leadership Committee, Integrating Learning in STEM Education, University of Wisconsin, 2003.
Convener, Special Session on Tonga Deep Earthquakes, American Geophysical Union Fall Meeting, 2002.
Session Chair, American Geophysical Union Fall Meeting, 1995, 1996, 2002, 2007.
President, College Teaching Effectiveness Network, University of Illinois, 1998-2000.
Department Representative, NAGT Workshop on Preparing Graduate Students for Teaching, 1999.
Book Reviewer, Journal of Geoscience Education, 1999.
Session Chair, North Central Section Meeting of the Geological Society of America, 1999.
Small Group Instructor, All-Campus Teaching Assistants Orientation, University of Illinois, 1998.
Event Coordinator, High School Science Olympiad, University of Illinois, 1998-1999.
Graduate Student Representative, Department of Geology, University of Illinois, 1998-2000.
Student Representative, Engineering/Physical Sciences Subcommittee, University of Illinois, 1998-1999.
Student Representative, Outstanding Mentor Award Selection Committee, University of Illinois, 1998, 1999.
Student Representative, Instructional Awards Selection Committee, University of Illinois, 1999.
Student Representative, Natural Sciences Senate, Eckerd College, 1994-1995.
Chair, Curriculum Review Committee, Eckerd College, 1995.

COURSES TAUGHT

* Indicates new course at the institution; [Average Overall Instructor Rating]

Environmental Geology, GLG 121, Miami U., Spr 06, Spr 07, Spr 08; [3.6/4]
Taught as Active Learning Hybrid-Online Course, Fall 12, Spr 13, [3.0/4]
Taught as Active Learning Online Course, Fall 13, Win 14, 15, 16, Spr 17, Win 18, 19, 20, Fall 20, 21, 22, 23 [3.2/4]
Trends and Topics in Geology (capstone), GLG 497, Miami U., Spring 15.
Geohazards and the Solid Earth, GLG 261, Miami U., Spr 10*, Fall 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23 [3.2/4]
Seismology, GLG 467/567 PHY 467/567, Miami U., Fall 07*, Fall 09, Spr 12, 14, 16, 18, 21, 24 [3.4/4]
Geophysics, GLG 461/561 PHY 466/566, Miami U., Fall 05*, Fall 06, Fall 08, Spr 11, Spr 13, Fall 14, Spr 17, 19, 23 [3.6/4]
Subduction Zones, GLG 662, Miami U., Spring 07*, Spring 09, Fall 15, Spr 20, 22. [4/4]
Dynamic Topography, GLG 663, Miami U., Spring 12*. [3.8/4]
High Performance Computing Seismology, GLG 710, Miami U., Fall 11*. [3.7/4]
Theoretical Seismology, GLG 666, Miami U., Spr 11*, Fall 16 [3.8/4]
Cordilleran Dynamics, GLG 710, Miami U., Fall 10*. [3.9/4]
The Dynamic Earth, Inquiry-Based Learning Course Redesign, GLG 111, Miami U., Spring 09.
Continental Mantle Dynamics, GLG 661, Miami U., Fall 08*. [3.7/4]
Field Geophysics, GLG 499/599T, Miami U., Summer 08*. [4/4]
Advanced Seismology, GLG 667, Miami U., Spring 08*. [4/4]
Signals & Systems, GLG 710, Miami U., Fall 07*.
Field Geology in Mexico, GLG 499/599C, Miami U., Summer 07*. [4/4]

PRESENTATIONS ON TEACHING AND LEARNING

Geological Society of America Connects Annual Meeting, "The Impact of Mutually Beneficial Collaborations Between Physical and Behavioral Scientists", Denver, Colorado, 9–12 October, 2022.

American Geophysical Union - Society of Exploration Geophysicists Convergent Margins Research Workshop, "Using a Collective Impact Framework in SZ4D to Build Equity and Capacity with Geoscience", with the BECG Integrative Group, Seattle, Washington, 12-14 July, 2022.

Earth Educators Rendezvous, "Expectancy and Value as Drivers for Participation and Persistence in an Open-access Online Scientific Computing Training in Seismology", with Michael Hubenthal, Online, 2021.

Seismological Society of America Annual Meeting, “Learning in a Crisis: Online Skill Building Workshop Addresses Immediate Pandemic Needs and Offers Possibilities for More Inclusive Trainings”, with Michael Hubenthal, Shannon Fasola, Em Schnorr, Abstract, Online, 2021.

Center for Teaching Excellence and Howe Center for Writing Excellence, "Authentic Assessment in Large Courses", with Stacey Lowery Bretz and Scott Sander, 2021.

American Geophysical Union Fall Meeting, “Creating opportunities for undergraduates during COVID-19: An online seismology skill building workshop for a global community”, with Michael Hubenthal, Shannon Fasola, Em Schnorr, Abstract S046-0006, Online, 2020.

American Geophysical Union Fall Meeting, “An Evaluation of Spatial Visualization Strategies for Improving Student Understanding of the Elastic Rebound Theory of Earthquakes”, with Tim Shipley, Abstract ED21C-1044, San Fran., 2019.

American Geophysical Union Fall Meeting, “Learning So Fast You’ll Freak: The Effect of Immersion to Increase Online Learning Success”, with Stefany Sit, Abstract ED13D-0903, San Fran., 2019.

Earth Educators Rendezvous, "Challenges in making meaning from Ground Motion Visualizations: The role of geoscience knowledge in interpreting dynamic spatiotemporal patterns", wth Allison Jaeger and Tim Shipley, Nashville, TN, 2019.

American Geophysical Union Fall Meeting, “Challenges in making meaning from Ground Motion Visualizations: The role of geoscience knowledge in interpreting dynamic spatiotemporal patterns", with Allison Jaeger and Tim Shipley, Abstract ED43H-1306, Washington, DC, 2018.

American Geophysical Union Fall Meeting, “Supporting student skill development in undergraduate research experiences through the development of a self-reflection guide", with Michael Hubenthal*, Abstract ED51B-0796, San Fran., 2016.

Earth Educators Rendezvous, "Learning So Fast You’ll Freak: The Effect of Immersion on Online Learning Success", with Stefany Sit, Proposal peer reviewed, Madison, WI, 2016.

Earth Educators Rendezvous, "Online Teaching Panel Discussion", with David McConnell, Anne Egger, and Katherine Ryker, Madison, WI, 2016.

Online Learning Consortium 21st International Conference, "Learning So Fast You’ll Freak: The Effect of Immersion on Online Learning Success", with Stefany Sit, Proposal peer reviewed, Orlando, FL, 2015.

American Geophysical Union Fall Meeting, “Creation and Assessment of an Active E-Learning Introductory Geoscience Course”, with Stefany Sit*, Abstract ED41C-06, San Fran., 2014.

American Geophysical Union Fall Meeting, “Exploration of the impacts of distributed-site Research Experiences for Undergraduates using pre-/post- student interviews", with Harmony Colella* and Michael Hubenthal, San Fran., 2013.

American Geophysical Union Fall Meeting, “Development of a monitoring protocol to enhance mentoring in the IRIS REU site", with Michael Hubenthal* and Harmony Colella, San Fran., 2013.

American Geophysical Union Fall Meeting, “Data Mining Student Answers with Moodle to Investigate Learning Pathways in an Introductory Geohazards Course”, with Stefany Sit* and Harmony Colella, Abstract ED21C-0726, San Fran., 2012.

American Geophysical Union Fall Meeting, “Implementing and Assessing Inquiry-Based Learning through the CAREER Award”, Abstract ED42B-06, San Francisco, 2011.

Lilly West Conference on College Teaching, “A Multi-Faceted Approach to Inquiry-Based Learning”, invited plenary presentation, Pomona, CA., 2010.

American Geophysical Union Fall Meeting, “A Multi-Faceted Approach to Inquiry-Based Learning”, with Janelle Sikorski, Abstract ED41B-0531, San Francisco, 2009.

Lilly Conference on College Teaching, "A Multi-Faceted Approach to Inquiry-Based Learning", invited plenary presentation, 2009.
Bicentennial Symposium on the Engaged University, "The Engaged Educator and Challenges of Engaged Learning", invited facilitator, 2009.
Top25 Workshop, "Incorporating Student Development", invited, with Janelle Sikorski, 2009.
Lilly Conference, "First Steps Towards Inquiry-Based Learning: Out-of-Class Content Quizzes, In-Class ConcepTests, Pre-/Post-Course Assessment, and Developing a 2-Year Plan", 2008.
CELT Brown Bag Seminar, "Using Clickers in the Classroom", with Andrea Han, Alfredo Huerta, Jerry Sarquis, and Nancy Smith-Huerta, 2007.
Graduate Student Teaching Enhancement Program, "Teaching Portfolios", Miami University, 2005.

INVITED RESEARCH PRESENTATIONS

Society of Petroleum Enginneers/Society of Exploration Geophysicists (2024), American Rock Mechanics Association (2023), University of Kentucky (2022), California Insitute of Technology (2022), University of Memphis (2021), Stanford (2021), American Rock Mechanics Association (2021), Geological Society of America (2020), Purdue University (2019), Pittsburgh Geological Society (2019), Texas Bureau of Economic Geology (2019), Ohio Geological Society (2018), Northern Kentucky University (2018), New Mexico Tech (2018), University of Alaska-Fairbanks (2018), Youngstown State University (2017), University of Illinois at Chicago (2017), Microseismic Industry Consortium (2016), University of Dayton (2016), Mastering the Subsurface through Technology Innovation and Collaboration: Carbon Storage and Oil and Natural Gas Technologies Review Meeting (2016), Department of Energy - National Energy Technology Laboratory (2016), Institute for Learning in Retirement (2015), Univ. of Cincinnati (2015), American Institute of Petroleum Geologists Ohio Section (2015), Ohio Environmental Health Association Conference (2015), Butler County MetroParks (2015), American Institute of Petroleum Geologists Expanding World of Unconventional Shale Hydrocarbon Resources Conference (2015), Department of Energy - National Energy Technology Laboratory (2015), Geophysical Society of Pittsburgh (2015), University of Wisconsin-Madison (2014), American Institute of Petroleum Geologists (2014), Ohio Geological Society (2014), Southern Methodist University (2013), University of Washington (2012), Central Washington University (2012), IRIS National Meeting (2012), Univ. of California-Riverside (2011), US/Japan Natural Resources Panel on Earthquake Research, Nagaoka, Japan (2010), EarthScope Institute on the Spectrum of Fault Slip (2010), Workshop Toward a Unified GPS Network in Mexico (2010), EarthScope National Meeting (2009), National Science Foundation (2008), IRIS National Meeting (2008), University of Illinois at Urbana-Champaign (2008), University of Memphis (2008), Indiana University (2008), AGH University of Science and Technology, Krakow, Poland (2007), Ohio State University (2006), Wright State University (2006), Ohio University (2005).

AFFILIATIONS

American Geophysical Union, Seismological Society of America
Geological Society of America, National Association of Geoscience Teachers
Ohio Geological Society, American Association of Petroleum Geologists

JOURNAL ARTICLE MANUSCRIPTS

(Underline indicates undergraduate, graduate student, or postdoc I advised)

Submitted

Brudzinski, M., Sumy, D., Jordan, P., Rea, S., Gomez, K., Robles, M., Briceno, Y., Olds, S., Multi-Hazard Improves App Retention: Comparison of Alerting and Attrition for the

Multi-Hazards *SD Emergency* and the Single-Hazard *QuakeAlert*, *in review, International Journal of Disaster Risk Reduction.*

Haberli, G., **Brudzinski M. R.**, Hubenthal, M., Nguyen, T., Hughes, M., Using Learning Analytics to Evaluate the Instructional Design of a Large-Enrollment Scientific Computing Workshop, *in revision, Journal of Computer Assisted Learning*.

Ventura-Valentin, W. A., **M. R. Brudzinski**, Bennett, A., Coker, S., Automated Detection and Characterization of Swarms and Mainshock-Aftershock Sequences in Southern Mexico, *in revision for Seismica*.

Close to Submission

Ventura-Valentin, W. A., **M. R. Brudzinski**, Haberli, G., Hubenthal, M (2025), Open, Engaged Learning Raises Expectancy-Value and Broadens Participation, *in prep for Nature Communications Earth & Environment*.

Coker, S., **M. R. Brudzinski**, Ventura-Valentin, W. A., Rapid Automated Discernment of Swarms Versus Mainshock-Aftershock Sequences in the Mexico Subduction Zone, *in prep for Seismica*.

On Hold

Friberg P., **Brudzinski M. R.**, Fasola, S., Kozłowska M. A., Ries R., Skoumal R. J., Cardona N. A., Currie B. S., An Investigation of Pumping Records During Seismicity Induced by Hydraulic Fracturing, *in prep for Journal of Geophysical Research Letters.*

Brudzinski, M. R., Sit, S.M., Learning So Fast You'll Freak: The Effect of Immersion to Increase Online Learning Success, *in prep for Journal of Science Education and Technology*.

Chiorini, S., Skoumal R. J., **Brudzinski M. R.**, Strategies for Discriminating Earthquakes Using a Repeating Signal Detector to Investigate Induced Seismicity in Eastern Ohio.

Hubenthal, M., **Brudzinski M. R.**, Supporting student skill development in undergraduate research experiences through the development of a self-reflection guide, *in prep for Journal of Geoscience Education*.

Kozłowska M. A., **Brudzinski M. R.**, Langenkamp, T., Skoumal R. J., Friberg P., Seismicity induced by hydraulic fracturing and flowback in Monroe County, Ohio.

Leveridge M. C., **Brudzinski M. R.**, Currie B. S., Free J. C., Skoumal R. J., Improved characterization of seismicity induced by wastewater disposal near Marietta, Ohio, *in prep for Seismological Research Letters.*

Smith S., **Brudzinski M. R.**, Currie B. S., Skoumal R. J., Determining the recent causes of seismicity in Johnson County, Texas, *in prep for Bulletin of the Seismological Society of America*.

PUBLISHED JOURNAL ARTICLES

(https://bit.ly/MikePubs)

1. Fasola, S., **M. R. Brudzinski**, N. Jackson, Exploring the Role of Wastewater Disposal in Causing Recent Increases in Seismicity in Central and Northern Kansas, *in press, Seismica*.
2. **Brudzinski M. R.**, Shipley, T. S., Ham, J. An Evaluation of Spatial Visualization Strategies for Improving Student Understanding of the Elastic Rebound Theory of Earthquakes, *Journal of Geoscience Education*, 2.42 IF, 1-18, https://doi.org/10.1080/10899995.2024.2335844, 2024.
3. Gossett D., **Brudzinski M. R.**, Xiong Q., Hampton J. C. The Pattern of Earthquake Magnitude Clustering Based on Interevent Distance and Time, *Seismica*, 3(2), https://doi.org/10.26443/seismica.v3i2.1094, 2024.
4. Hubenthal, M., **Brudzinski M. R.**, Undergraduate Persistence in an Open-Access, Online, Scientific Computing Training Is Influenced by Expectancy, Value, and Cost, *Journal of Geoscience Education*, 2.42 IF, 1–17. https://doi.org/10.1080/10899995.2024.2416365, 2024.

5. Kroll, K., **M. R. Brudzinski**, Evaluating the Aftershock Duration of Induced Earthquakes, *Bulletin of the Seismological Society of America*, 2.6 IF, doi: https://doi.org/10.1785/0120230098, 2023.
6. Xiong Q., **Brudzinski M. R.**, Gossett D., Lin Q., Hampton J. C., Seismic Magnitude Clustering is Prevalent in Field and Laboratory Catalogs, *Nature Communications*, 14.7 IF, 14, 2056, https://doi.org/10.1038/s41467-023-37782-5, 2023.
7. Fasola, S., **M. R. Brudzinski**, Machine Learning Reveals Additional Hydraulic Fracture Induced Seismicity in the Eagle Ford Shale, *Journal of Geophysical Research*, 3.9 IF, 128 (2), https://doi.org/10.1029/2022JB025436, 2023.
8. Karjack, S., **M. R. Brudzinski**, T. Shipley, Assessment of the General Public's Understanding of Rapidly Produced Earthquake Information Products ShakeMap and PAGER, *Seismological Research Letters*, 2.6 IF, 93 (5): 2891–2905, https://doi.org/10.1785/0220210318, 2022.
9. Hilley, G. E. (ed.), Brodsky, E. E., Roman, D., Shillington, D. J., **Brudzinski, M.**, Behn, M. Tobin, H. and the SZ4D RCN. SZ4D Implementation Plan. *Stanford Digital Repository.* 186 pp. https://doi.org/10.25740/hy589fc7561, 2022.
10. Ventura-Valentin, W., **M. R. Brudzinski**, Characterization of Swarm and Aftershock Behavior in Puerto Rico, *Seismology Research Letters*, 2.6 IF, 641–652, https://doi.org/10.1785/0220210329, 2022.
11. Velasco, A. A., K. Aderhold, R. Alfaro-Diaz, W. Brown, **M.R. Brudzinski**, M. Fraiser, M.M. Holt, J. Mori, G. Noriega, K. Scharer, D. Templeton, F. Terra, and S. Williams-Stroud. SSA Task Force on Diversity, Equity, and Inclusion: Toward a Changing, Inclusive Future in Earthquake Science. *Seismological Research Letters*, 2.6 IF, 92 (5): 3267–3275. https://doi.org/10.1785/0220210170, 2021.
12. **Brudzinski, M. R.**, Hubenthal, M., Fasola, S., Schnorr, E., Learning in a crisis: Online skill building workshop addresses immediate pandemic needs and offers possibilities for future trainings, *Seismological Research Letters*, 2.6 IF, 92 (5): 3215–3230. https://doi.org/10.1785/0220200472, 2021.
13. Hennings P. H., J. P. Nicot, R. S. Gao, H. R. DeShon, J-E. Lund Snee, A. P. Morris, **M. R. Brudzinski**, E. A. Horne, and C. Breton, Pore Pressure Threshold and Fault Slip Potential for Induced Earthquakes in the Dallas-Fort Worth Area of North Central Texas, *Geophysical Research Letters*, 4.6 IF, 48(15), e2021GL093564, 2021.
14. Skoumal, R. J., Kaven J. O., Barbour A. J., C. Wicks, **M. R. Brudzinski**, E. Cochran, J. Rubinstein, The Induced Mw 5.0 March 2020 West Texas Seismic Sequence, *Journal of Geophysical Research*, 3.9 IF, doi:10.1029/2020JB020693, 2021.
15. Melgar, D., A. Ruiz-Angulo, X. Pérez-Campos, B. W. Crowell, X. Xu, E. Cabral-Cano, **M. R. Brudzinski**, L. Rodriguez-Abreu, Energetic Rupture and Tsunamigenesis during the 2020 Mw 7.4 La Crucecita, Mexico Earthquake, *Seismology Research Letters,* 2.6 IF, doi:10.1785/0220200272, 2020.
16. Schultz R., R. J. Skoumal, **M. R. Brudzinski**, D. Eaton, B. Baptie, W. Ellsworth, Hydraulic Fracturing Induced Seismicity, *Reviews of Geophysics*, 25.2 IF, 58(3), e2019RG000695, 2020.
17. Ries R., **Brudzinski M. R.**, Skoumal R. J., Currie B. S., Factors Influencing the Likelihood of Hydraulic Fracturing Induced Seismicity in Oklahoma, *Bulletin of the Seismological Society of America*, 110(5), 2272-2282, 2020.
18. Skoumal R. J., Barbour A. J., **Brudzinski M. R.,** Langenkamp, T., Kaven J. O., Induced Seismicity in the Delaware Basin, doi:10.1029/2019JB018558, *Journal of Geophysical Research*, 3.9 IF, 125, 2020.
19. Fasola, S., **M. R. Brudzinski**,, Skoumal R. J., Langenkamp, T., Currie B. S., Smart, K. J., Hydraulic Fracture Induced Seismicity in the Eagle Ford Shale: Evidence that Injection Strategy Influences the Probability, *Geophys. Res. Lett.*, 4.6 IF, 46, 12,958–12,967,

doi:10.1029/2019GL085167, 2019.

20. Skoumal R. J., **Brudzinski M. R.**, Currie B. S., Ries, R., Temporal patterns of induced seismicity in Oklahoma revealed from multi-station template matching, *Journal of Seismology*, doi:10.1007/s10950-019-09864-9, 2020.
21. Fasola, S., **M. R. Brudzinski**, S. G. Holtkamp, S. E., Graham, E. Cabral-Cano, Earthquake Swarms and Slow Slip on a Sliver Fault in the Mexican Subduction Zone, *Proceedings of the National Academy of Sciences*, 9.7 IF, 116, 7198-7206, doi:10.1073/pnas.1814205116, 2019.
22. **Brudzinski, M. R.**, A. Jaeger, T. Shipley, Challenges in making meaning from Ground Motion Visualizations: The role of geoscience knowledge in interpreting dynamic spatiotemporal patterns, *Seismological Research Letters*, 2.6 IF, doi: 10.1785/0220180289, 2019.
23. **Brudzinski M. R.**, Kozłowska M. A., Seismicity induced by hydraulic fracturing and wastewater disposal in the Appalachian Basin, USA: a review, *Acta Geophysica*, 2.0 IF, doi:10.1007/s11600-019-00249-7, 2019.
24. Zhang, H., **Brudzinski, M. R.**. Evidence for Rupture Through a Double Benioff Zone During the 2017 Mw 8.2 Chiapas, Mexico Earthquake, *Geophys. Res. Lett.*, 4.6 IF, doi:10.1029/2018GL080009, 2019.
25. Skoumal R. J., Ries R., **Brudzinski M. R.**, Barbour A. J., Currie B. S., Earthquakes induced by hydraulic fracturing are pervasive in Oklahoma, *Journal of Geophysical Research*, 3.9 IF, doi:10.1029/2018JB016790, 2018.
26. Sweet, J. R., K. R. Anderson, S. Bilek, **M. Brudzinski**, X. Chen, H. DeShon, C. Hayward, M. Karplus, K. Keranen, C. Langston, F.-C. Lin, B. Magnani, R. L. Woodward, A Community Experiment to Record the Full Seismic Wavefield in Oklahoma, *Seismological Research Letters*, 3.7 IF, 89(5), 1923-1930, doi:10.1785/0220180079, 2018.
27. Skoumal R. J., **Brudzinski M. R.**, Currie B. S., Proximity of Precambrian basement affects the likelihood of induced seismicity in the Appalachian, Illinois, and Williston Basins, *Geosphere*, 2.2 IF, 14 (3): 1365-1379, doi.org/10.1130/GES01542.1, 2018.
28. Currie B. S., Free J. C., **Brudzinski M. R.**, Leveridge M. C., Skoumal R. J., Seismicity induced by wastewater injection in Washington County, Ohio: Influence of pre-existing structure, regional stress regime, and well operations, *Journal of Geophysical Research*, 3.4 IF, doi:10.1002/2017JB015297, 2018.
29. Kozłowska M. A., **Brudzinski M. R.**, Friberg P., Skoumal R. J., Baxter N. D., Currie B. S., Maturity of nearby faults influences seismic hazard from hydraulic fracturing, *Proceedings of the National Academy of Sciences*, 9.7 IF, 115(8), E1720-E1729, doi:10.1073/pnas.1715284115, 2018.
30. Watkins, W. D., Thurber, C. H., Abbott, E. A., **Brudzinski, M. R.**, Local earthquake tomography of the Jalisco, Mexico region, *Tectonophysics*, 2.7 IF, 724, 51-64, doi:10.1016/j.tecto.2018.01.002, 2018.
31. **Brudzinski M. R.**, Using GPS velocity vectors to illustrate elastic rebound, *In The Trenches*, 8 (1), nagt.org/nagt/publications/trenches/v8-n1/196290.html, 2018.
32. Sit, S.M., **Brudzinski, M. R.**, Creation and assessment of an active e-learning introductory geology course, *Journal of Science Education and Technology*, 1.4 IF, doi:10.1007/s10956-017-9703-3, 2017.
33. Morris A. P., Ferrill D. A., Walter G. R., Price A. M., Smart K. J., Skoumal R. J., **Brudzinski M. R.**, Currie B. S., Lessons learned from the Youngstown, Ohio induced earthquake sequence January 2011 to January 2012, *Journal of Rock Mechanics and Geotechnical Engineering*, 2.1 IF, 2017.
34. Colella, H.V., Sit, S.M., **Brudzinski, M. R.**, Graham, S. E., DeMets, C., Holtkamp, S.G., Skoumal R. J., Ghouse, N., Cabral-Cano, E., Kostoglodov, V., Arciniega-Ceballos, A., Seismicity rate increases associated with slow slip episodes prior to the 2012 Mw 7.4 Ometepec earthquake, *Earth and Planetary Science Letters*, 4.5 IF, doi:10.1016/j.epsl.2016.12.032, 2017.

35. Skoumal R. J., **Brudzinski M. R.**, Currie B. S., An Efficient Repeating Signal Detector to Investigate Earthquake Swarms, *Journal of Geophysical Research,* doi:10.1002/2016JB012981, 3.2 IF, 2016.
36. **Brudzinski, M. R.**, Schlanser, K. M., Kelly, N. J., DeMets, C., Grand, S. P., Márquez-Azúa, B., Tectonic Tremor along the Western Mexico Subduction Zone, *Earth and Planetary Science Letters*, doi:10.1016/j.epsl.2016.08.004, 4.5 IF, 2016.
37. Fasola, S., **M. R. Brudzinski**, N. Ghouse, K. Solada, S.M. Sit, E. Cabral-Cano, A. Arciniega-Ceballos, N. Kelly, K. Jensen, New perspective on the transition from flat to steeper subduction in Oaxaca, Mexico, based on seismicity, nonvolcanic tremor, and slow slip, *Journal of Geophysical Research*, 3.2 IF, doi:10.1002/2015JB012709, 2016.
38. Skoumal R. J., **Brudzinski, M. R.**, Currie, B. S., An efficient repeating signal detector to detect and characterize induced seismicity, In *SEG Technical Program Expanded Abstracts 2016*, 5028-5033, Society of Exploration Geophysicists, doi: 10.1190/segam2016-13845755.1, 2016.
39. Skoumal R. J., **Brudzinski, M. R.**, Currie, B. S., Distinguishing induced seismicity from natural seismicity in Ohio: Demonstrating the utility of waveform template matching, *Journal of Geophysical Research*, 3.3 IF, doi:10.1002/2015JB012265, 2015c.
40. Abbott. E. R., **Brudzinski, M. R.**, Shallow seismicity patterns in the northwestern section of the Mexico Subduction Zone*, Journal of South American Earth Sciences*, 1.9 IF, doi:10.1016/j.jsames.2015.07.012, 2015.
41. Boyarko, D. C., **M. R. Brudzinski**, R. M. Allen, R. W. Porritt, A. M. Tréhu, Nonvolcanic tremor patterns along the entire Cascadia subduction zone from 2005 to 2009, *Earth and Planetary Science Letters*, 4.2 IF, doi: 10.1016/j.epsl.2015.06.026, 2015.
42. Skoumal R. J., **Brudzinski, M. R.**, Currie, B. S., Microseismicity induced by deep wastewater injection in southern Trumbull County, Ohio, *Seismological Research Letters*, 2.5 IF, doi: 10.1785/0220150055, 2015b.
43. Holtkamp, S. G., **Brudzinski, M. R.**, Currie, B. S., Regional detection and monitoring of injection-induced seismicity: Application to the 2010–2012 Youngstown, Ohio, seismic sequence, *AAPG Bulletin*, 3.1 IF, doi: 10.1306/03311513194, 2015.
44. Pfohl, A., Warren, L. M., Sit, S., **Brudzinski, M.**, Search for Tectonic Tremor on the Central North Anatolian Fault, Turkey, *Bulletin of the Seismological Society of America*, 2.4 IF, doi: 10.1785/0120140312, 2015.
45. Watkins, W. D., Colella, H. V., **Brudzinski, M. R.**, Richards-Dinger, K. B., Dieterich, J. H., The role of effective normal stress, frictional properties, and convergence rates in characteristics of simulated slow slip events, *Geophysical Research Letters*, 4.3 IF, doi: 10.1002/2014GL062794, 2015.
46. Skoumal R. J., **Brudzinski, M. R.**, Currie, B. S., Induced Earthquakes During Hydraulic Fracturing in Poland Township, Ohio, *Bulletin of the Seismological Society of America*, 2.4 IF, doi:10.1785/0120140168, 2015a.
47. Skoumal R. J., **Brudzinski, M. R.**, Currie, B. S., Levy, J., Optimizing Multi-Station Earthquake Template Matching Through Re-Examination of the Youngstown, Ohio Sequence, *Earth and Planetary Science Letters*, 4.2 IF, 405, 274-280, doi:10.1016/j.epsl.2014.08.033, 2014.
48. Graham, S. E., DeMets, C., Cabral-Cano, E., Kostoglodov, V., Walpendorf, A, Lasserre, C., **Brudzinski, M. R.**, McCaffrey, R., Salazar-Tlaczani, L., GPS constraints on the Mw=7.5 Ometepec earthquake sequence, southern Mexico: Coseismic and postseismic deformation, *Geophysical Journal International*, 199(1), 200-218, 2014.
49. Graham, S. E., DeMets, C., Cabral-Cano, E., Kostoglodov, V., Walpendorf, A, Lasserre, C., **Brudzinski, M. R.**, McCaffrey, R., Salazar-Tlaczani, L., GPS constraints on the 2011/12 Oaxaca slow slip event that preceded the 20 March 2012 Ometepec earthquake, southern Mexico,

Geophysical Journal International, 197 (3): 1593-1607, doi: 10.1093/gji/ggu019, 2014.

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52. Chen, W.-P., Hung, S.-H., Tseng, T.-L., **Brudzinski, M. R.**, Yang, Z., Nowack, R. L. Rheology of the continental lithosphere: Progress and new perspectives. *Gondwana Research*, 6.7 IF, 21(1), 4-18, 2012.
53. **Brudzinski, M. R.**, Episodic Tremor and Slip: Potential Clues to the Earthquake Process and How Faults Slip, *The Earth Scientist*, 27, 7-12, 2011.
54. Holtkamp, S. G., and **Brudzinski, M. R.** Earthquake swarms in circum-Pacific subduction zones. *Earth and Planetary Science Letters*, 4.2 IF, 305(1-2), 215-225, 2011.
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56. **Brudzinski, M. R.**, Sikorski, J.J., Impact of the COPEL on active-learning revisions to an introductory geology course: Focus on student development, *Learning Communities Journal*, 2 (2), 53-69, 2010.
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MICHAEL R. BRUDZINSKI

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ABSTRACTS

(Last 10 years, * indicates presenter, underline indicates student I advised)

Szucs, E.*, Brudzinski, M.R., Graham, S. E. Cabral-Cano, E., Ventura-Valentin, W., Khalkhali, M. (2025), Investigating Potential Relationships Between Rates of Seismicity, Strain Accumulation, and Slow Slip in the Oaxaca Region of Mexico. Abstract presented at SSA, Baltimore, MD, 14–18 April.

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MICHAEL R. BRUDZINSKI

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Brudzinski, M.R.*, Bennett, A., Ventura-Valentin, W. Graham, S. E. Cabral-Cano, E. (2022), Characterization of earthquake clusters and swarm behavior in southern Mexico, Abstract presented at SSA Eastern Section Meeting, Tampa, Florida, 23-25 October.

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Brudzinski M. R.* **Invited Speaker**, Fasola S., Ries R., Currie, B., (2020), Evidence that Geology Plays a Primary Role in Injection Induced Seismicity, Abstract 161-1 presented at GSA Annual Meeting, Online, 26-30 Oct.

Ventura-Valentín W.*, Brudzinski M. R., (2020), Characterization of swarm and aftershock behavior in Puerto Rico, Abstract presented at SSA Eastern Section Meeting, 12-16 October.

MICHAEL R. BRUDZINSKI

CURRICULUM VITAE

Brudzinski M. R.*, R. Schultz, R. J. Skoumal, M. R. Brudzinski, D. Eaton, B. Baptie, W. Ellsworth, (2020), A Review of Hydraulic Fracturing-Induced Seismicity, Abstract presented at SSA Eastern Section Meeting, 12-16 October.

Ventura-Valentín W.*, Brudzinski M. R., (2020), Enhanced Detection and Swarm Behavior of the Indios, Puerto Rico Earthquake Sequence, Abstract accepted to SSA Annual Meeting, 27-30 April (meeting cancelled).

Fasola S.*, Brudzinski M. R., Skoumal R. J., Langenkamp, T., Currie, B., Smart, K. J, (2019), Hydraulic Fracture Injection Strategy Influences the Probability of Earthquakes in the Eagle Ford Shale Play of South Texas, Abstract S11B-04 presented at AGU Fall Meeting, San Francisco, CA, 11-15 Dec.

Skoumal R. J.*, Barbour, A., Brudzinski M. R., Langenkamp, T., Kaven, O., (2019), Induced Seismicity in the Delaware Basin, Abstract S21B-05 presented at AGU Fall Meeting, San Francisco, CA, 11-15 Dec.

Brudzinski M. R.* **Invited Speaker** (2019), Reflections on Impacts of the EarthScope Data Explosion, Abstract S53E-0494 presented at AGU Fall Meeting, San Francisco, CA, 11-15 Dec.

Kroll, K.*, Brudzinski, M. R., & White, J. A. (2019), Evaluation of the Aftershock Duration of Induced Earthquakes, Abstract S11B-08 presented at AGU Fall Meeting, San Francisco, CA, 11-15 Dec.

S. Fasola* **Invited Speaker**, Brudzinski M. R., Skoumal R. J., Langenkamp, T., Currie, B., Smart, K. J, (2019), Hydraulic Fracture Injection Strategy Influences the Probability of Earthquakes in the Eagle Ford Shale Play of South Texas, presented at SPE/SEG Workshop: Injection Induced Seismicity, Dallas, TX, 12-14 Nov.

Skoumal R. J.* **Invited Speaker**, Brudzinski M. R., Chiorini, S., Currie, B., Kozłowska, M., (2019), Improved Understanding of Induced Seismicity Using Waveform Correlation, presented at SPE/SEG Workshop: Injection Induced Seismicity, Dallas, TX, 12-14 Nov.

Brudzinski M. R.* **Invited Speaker**, Skoumal R. J., Currie, B., Kozłowska, M., (2019), A Review of Several Basins Where Saltwater Disposal Induces Seismicity in Some Cases but Not Others, presented at SPE/SEG Workshop: Injection Induced Seismicity, Dallas, TX, 12-14 Nov.

Brudzinski M. R.*, Fasola, S., S. G. Holtkamp, S. E., Graham, E. Cabral-Cano, (2019), Earthquake Swarms and Slow Slip on a Sliver Fault in the Mexican Subduction Zone, presented at Eastern Section SSA Meeting, Columbus, OH, 3-5 Nov.

S. Fasola*, Brudzinski M. R., Skoumal R. J., Langenkamp, T., Currie, B., Smart, K. J, (2019), Hydraulic Fracture Injection Strategy Influences the Probability of Earthquakes in the Eagle Ford Shale Play of South Texas, presented at Eastern Section SSA Meeting, Columbus, OH, 3-5 Nov.

Ries, R.*, Brudzinski M. R., Skoumal R. J., Currie B. S., (2019), Factors Influencing the Probability of Hydraulic Fracturing Induced Seismicity in Oklahoma, presented at Eastern Section SSA Meeting, Columbus, OH, 3-5 Nov.

Brudzinski M.*, R. Skoumal, R. Ries, S. Fasola, T. Langenkamp, P. A. Friberg, B. Currie, (2019), Seismicity Induced by Hydraulic Fracturing in the Central and Eastern United States, presented at Eastern Section SSA Meeting, Columbus, OH, 3-5 Nov.

Chiorini, S.*, R. Skoumal, Brudzinski M., (2019), An Efficient Repeating Signal Detector that Uses Machine Learning to Improve Detection of Induced Seismicity, presented at Eastern Section SSA Meeting, Columbus, OH, 3-5 Nov.

Brudzinski M.*, Kozłowska, M., R. Skoumal, P. A. Friberg, B. Currie, S. Young, (2019), Seismicity Induced by Hydraulic Fracturing and Wastewater Disposal in the Appalachian Basin, presented at Eastern Section AAPG Meeting, Columbus, OH, 14-15 Oct.

Chiorini, S.*, R. Skoumal, Brudzinski M., (2019), An Efficient Repeating Signal Detector that Uses Machine Learning to Improve Detection of Induced Seismicity, presented at Eastern Section AAPG Meeting, Columbus, OH, 14-15 Oct.

Ries, R.*, Brudzinski M. R., Skoumal R. J., Currie B. S., J.C. Cunningham, (2019), Factors Influencing the Probability of Hydraulic Fracturing Induced Seismicity in Oklahoma, presented at Eastern Section AAPG Meeting, Columbus, OH, 14-15 Oct.

S. Fasola*, Brudzinski M. R., Skoumal R. J., Langenkamp, T., (2019), Hydraulic Fracture Induced Seismicity in the Eagle Ford Shale, presented at Eastern Section AAPG Meeting, Columbus, OH, 14-15 Oct.

Brudzinski M.*, B. Currie, R. Skoumal, S. Fasola, R. Ries, T. Langenkamp, P. A. Friberg, (2019), Seismicity Induced by Hydraulic Fracturing in the Central and Eastern United States, Abstract presented at AAPG Annual Conference and Exhibition, San Antonio, TX, 19-22 May.

Brudzinski M.*, R. Skoumal, R. Ries, S. Fasola, P. A. Friberg, B. Currie, (2019), Seismicity Induced by Hydraulic Fracturing in the Central and Eastern United States, Abstract presented at SSA Annual Meeting, Seattle, WA, 23-26 April.

Ries, R.*, Brudzinski M. R., Skoumal R. J., Currie B. S., J.C. Cunningham, (2019), Investigating Operational Parameters Associated with Earthquakes Induced by Hydraulic Fracturing in Oklahoma, presented at North-Central GSA Meeting, Manhattan, KS, 25-27 March.

Fasola, S.*, M. R. Brudzinski, S. G. Holtkamp, S. E., Graham, E. Cabral-Cano, (2018), Earthquake Swarms and Slow Slip on a Sliver Fault in the Mexican Subduction Zone., Abstract T43E-0438 presented at AGU Fall Meeting, Washington, DC, 10-14 Dec.

Friberg P.*, Brudzinski M., Fasola S., Kozlowska M., Skoumal R.M. (2018), Seismicity Induced by Hydraulic Fracturing in Ohio in 2016: Case Study of the Conotton Sequence in Harrison County, Abstract S32A-07 presented at AGU Fall Meeting, Washington, DC, 10-14 Dec.

Ries, R.*, Skoumal R. J., Brudzinski M. R., Barbour, A., Currie B. S., (2018), Earthquakes induced by hydraulic fracturing are pervasive in Oklahoma, Abstract S32A-08 presented at AGU Fall Meeting, Washington, DC, 10-14 Dec.

Rodríguez-Domínguez, M.Á.*, Perez-Campos, X., Clayton, R.W., Montealegre, C., Cordoba-Montiel, F., Francisco-Lermo, J., Brudzinski, M., Cabral-Cano, E., Arciniega-Ceballos, A., Castelan-Pescina, G., (2018), Imaging the Crust in South-Central Mexico from Receiver Functions, Abstract S13D-0485 presented at AGU Fall Meeting, Washington, DC, 10-14 Dec.

Langenkamp, T.*, M. Kozlowska, M. Brudzinski, P. A. Friberg, E. Loughner, (2018), Seismicity Induced by Hydraulic Fracturing and Flowback in Monroe County, Ohio, Abstract 174-4 presented at GSA Annual Meeting, Indianapolis, IN, 4-7 Nov.

Ries, R.*, Skoumal R. J., Brudzinski M. R., Barbour, A., Currie B. S., (2018), Earthquakes induced by hydraulic fracturing are pervasive in Oklahoma, Abstract 208-11 presented at GSA Annual Meeting, Indianapolis, IN, 4-7 Nov.

Brudzinski M.*, R. Skoumal, M. Kozlowska, P. A. Friberg, R. Ries, B. Currie, T. Langenkamp, E. Loughner, S. Fasola (2018), Seismicity Induced by Hydraulic Fracturing in the Central and Eastern United States, Abstract presented at European Seismology Commission, Malta, 3-7 Sep.

Friberg P.*, Brudzinski M., Fasola S., Kozlowska M., Skoumal R.M. (2018), Seismicity Induced by Hydraulic Fracturing in Ohio in 2016: Case Study of the Conotton Sequence in Harrison County, Abstract presented at European Seismology Commission, Malta, 3-7 Sep.

Fasola, S.*, M. R. Brudzinski, S. G. Holtkamp, S. E., Graham, E. Cabral-Cano, (2018), Earthquake Swarms and Slow Slip on a Sliver Fault in the Mexican Subduction Zone., Abstract presented at IRIS Workshop, Albuquerque, NM, 12-14 Jun.

Brudzinski M.*, R. Ries, R. Skoumal, B. Currie, A. Barbour (2018), Earthquakes Induced by Hydraulic Fracturing are Wide-Spread in Oklahoma, Abstract presented at SSA – Eastern Section, Niagara Falls, 10-14 Jun.

MICHAEL R. BRUDZINSKI

CURRICULUM VITAE

Brudzinski M.*, R. Skoumal, H.R. DeShon, S. Smith, B.S. Currie, K.J. Smart, A.P. Morris (2018), Discerning and Characterizing Induced Seismicity in Texas Using Regional Multistation Template Matching, Abstract presented at SSA, Miami, FL, 14-17 May.

DeShon, H.R.*, Quinones, L., Ogwari, P., Jeong, S., Brudzinski, M., Magnani, M.B. (2018), Identifying the Trigger of the Irving-Dallas, North Texas, Earthquake Sequence, Abstract presented at SSA, Miami, FL, 14-17 May.

Brudzinski M.*, P. A. Friberg, M. Kozlowska, R. Skoumal, T. Langenkamp, E. Loughner, B. Currie, S. Fasola (2018), Seismicity Induced by Hydraulic Fracturing in Ohio, Abstract presented at SSA, Miami, FL, 14-17 May.

Zhang H., M. Brudzinski*, K. D. Koper, K. L. Pankow, (2017), Imaging the 2017 MW 8.2 Tehuantepec intermediate-depth earthquake using Teleseismic P Waves, Abstract S33G-2933 presented at AGU Fall Meeting, New Orleans, LA, 11-15 Dec.

Friberg P.A., M. Brudzinski, M. Kozlowska, E. Loughner, T. Langenkamp, I. Dricker, (2017), Case studies of Induced Earthquakes in Ohio for 2016 and 2017, Abstract S23B-0801 presented at AGU Fall Meeting, New Orleans, LA, 11-15 Dec.

Kozlowska, M., M. Brudzinski, P. A. Friberg, R. Skoumal, N. D. Baxter, B. Currie, (2017), Two types of seismicity accompanying hydraulic fracturing in Harrison County, Ohio - implications for seismic hazard and seismogenic mechanism, Abstract S14A-05 presented at AGU Fall Meeting, New Orleans, LA, 11-15 Dec.

Holtkamp, S.G., M. Brudzinski, W. Frank, S. Fasola, (2017), Stacking GPS observations on ETS and inter-ETS tremor times to improve geodetic observations of slip in Cascadia, Abstract S41C-0817 presented at AGU Fall Meeting, New Orleans, LA, 11-15 Dec.

DeShon H. R.*, M. Brudzinski, C. Frohlich, C. Hayward, S.J. Jeong, M. J. Hornbach, M. B. Magnani, P. Ogwari, L. Quinones, M. M. Scales, B. W. Stump, O. Sufri, J. I. Walter, (2017), One Basin, One Stress Regime, One Orientation of Seismogenic Basement Faults, Variable Spatio-Temporal Slip Histories: Lessons from Fort Worth Basin Induced Earthquake Sequences, Abstract S14A-08 presented at AGU Fall Meeting, New Orleans, LA, 11-15 Dec.

Brudzinski*, M., M. Kozlowska, P. A. Friberg, R. Skoumal, N. D. Baxter, B. Currie, (2017), Maturity of nearby faults influences seismic hazard from hydraulic fracturing, Abstract presented at Society of Exploration Geophysicists and Society of Petroleum Engineers Meeting on Injection-Induced Seismicity - Intersection of Evolving Science and Regulations, Dallas, TX, 6-8 Nov.

Brudzinski*, M., M. Kozlowska, P. A. Friberg, R. Skoumal, N. D. Baxter, B. Currie, (2017), Maturity of nearby faults influences seismic hazard from hydraulic fracturing, Abstract presented at SSA – Eastern Section, Norman, OK, 9-10 Oct.

Brudzinski M.*, Skoumal R., Currie B., (2017), Proximity of Precambrian basement affects the likelihood of induced seismicity in the Appalachian, Illinois, and Williston Basins, Abstract presented at the EarthScope National Meeting, Anchorage, AK, 16-18 May.

Fasola S.*, Brudzinski, M., Holtkamp, S., Skoumal, R., Cabral-Cano, E., Arciniega-Ceballos, A. (2017), Template Matching Analysis of Swarms in Oaxaca, Mexico and Their Relationship to Slow Slip, Abstract presented at the EarthScope National Meeting, Anchorage, AK, 16-18 May.

Brudzinski, M.*, Fasola S., Holtkamp, S., Skoumal, R., Cabral-Cano, E., Arciniega-Ceballos, A. (2017), Enhanced detection of earthquake swarms in southern mexico and relationships to slow slip, presented at SSA Meeting, Denver, CO, 18-20 March.

Leveridge M. C.*, M. R. Brudzinski, B. S. Currie, R. J. Skoumal, J. C. Free, (2017). Improved seismological and geological characterization of seismicity induced by wastewater disposal near Marietta, Ohio. In Seismological Research Letters (Vol. 88, pp. 628–628).

Friberg, P. A.*, Dricker, I., Kozlowska, M. A., & Brudzinski, M. R. (2017). 2016 observations and mitigation strategies for hydraulic fracture induced seismicity in Ohio. In Seismological Research Letters (Vol. 88, pp. 640–640).

Brudzinski, M. R., Skoumal, R. J., Rakowski, J., Smith, S., Kozlowska, M. A., Baxter, N. D., Friberg, P. A., Currie, B. S. (2017). Correlation algorithms to better characterize seismicity induced by hydraulic fracturing. In Seismological Research Letters (Vol. 88, pp. 597–597).

Brudzinski, M.*, Currie, B. S., & Skoumal, R. J. (2017). Improving correlation algorithms to better characterize and interpret induced seismicity. In Abstracts with Programs - Geological Society of America (Vol. 49, pp. Abstract 33–1).

Brudzinski M.*, Skoumal R., Currie B., (2016), Proximity of wastewater disposal and hydraulic fracturing to crystalline basement affects the likelihood of induced seismicity in the central and eastern U.S., Abstract S54B-03 presented at AGU Fall Meeting, San Fran., CA, 12-16 Dec.

Skoumal R.*, Brudzinski M., Currie B., (2016), Seismicity Induced by Hydraulic Fracturing in Oklahoma, Abstract S21D-02 presented at AGU Fall Meeting, San Fran., CA, 12-16 Dec.

Smith, S.*, Brudzinski M., Skoumal R., Currie B., (2016), Determining the Causes of Recent Seismicity in Johnson County, TX, Abstract S43C-2884 presented at AGU Fall Meeting, S.F., CA, 12-16 Dec.

Brudzinski M.*, Skoumal R., Currie B., (2016), When people push water deep under ground, it can cause repeating ground shakes, Abstract PA53B-14 presented at AGU Fall Meeting, S.F., CA, 12-16 Dec.

Aiken C.*, Walter J.I., Brudzinski M., Skoumal R., Savvaidis A., Frohlich C., Borgfeldt T., Dotray P., (2016), Delineating Concealed Faults within Cogdell Oil Field via Earthquake Detection, Abstract S43C-2876 presented at AGU Fall Meeting, San Fran., CA, 12-16 Dec.

Anderson K.R.*, Woodward R., Sweet J.R., Bilek S.L., Brudzinski M., Chen X. DeShon, H.R., Karplus M.S., Keranen K.M., Langston C.A., Lin F.-C., Magnani M.B., Stump B.W., (2016), Full Wavefield Recordings of Oklahoma Seismicity from an IRIS-led Community Experiment, Abstract S11D-2493 presented at AGU Fall Meeting, San Fran., CA, 12-16 Dec.

Brudzinski M.*, Skoumal R., Currie B., (2016), Improving correlation algorithms to better characterize and interpret induced seismicity, Abstract presented at Eastern Section Seismological Society of America Meeting, Reston, VA, 24-25 Oct.

Brudzinski M.*, Skoumal R., Currie B., (2016), Improving correlation algorithms to better characterize and interpret induced seismicity, Abstract presented at American Association of Petroleum Geologists Annual Conference and Exhibition, Calgary, BC, 19-22 June.

Brudzinski M.*, Skoumal R., Currie B., (2016), Improving correlation algorithms to better characterize and interpret induced seismicity, Abstract presented at IRIS Workshop, Vancouver, WA,, 7-9 June.

Brudzinski M.*, Fasola S., Skoumal R., (2016), Earthquake swarms along the Oaxaca segment of the Mexico subduction zone and relationships to slow slip phenomena, Abstract presented at Japanese Geophysical Union Annual Meeting, Makuhari Messe, Japan, 20-26 May.

Friberg P.*, Brudzinski M., Skoumal R., Currie B., (2016), Observations of numerous hydraulic fracturing induced earthquake sequences in Harrison County Ohio since 2013, presented at 2016 SSA Meeting, Reno, NV, 20-22 Apr.

Sumy D.*, Busby R., Woodward R., Brudzinski M., (2016), New research and monitoring opportunities with the Central and Eastern United States Seismic Network, presented at 2016 SSA Meeting, Reno, NV, 20-22 Apr.

Bilek S.*, Phillips W., Brudzinski M., Cabral-Cano, E., Arciniega-Ceballos, A., (2016), Earthquake source parameters for earthquake swarms adjacent to slow slip, tremor, and large earthquakes in the Oaxaca, Mexico region, presented at 2016 SSA Meeting, Reno, NV, 20-22 Apr.

Brudzinski M.*, Skoumal R., Currie B., (2015), Multistation template matching to characterize frequency-magnitude distributions of induced seismicity in the Central and Eastern US, Abstract T43D-3047 presented at 2015 Fall Meeting, AGU, San Fran., CA, 14-18 Dec.

Skoumal R.*, Brudzinski M., Currie B., (2015), Improving Correlation Algorithms to Detect and Characterize Smaller Magnitude Induced Seismicity Swarms, Abstract S13B-2846 presented at 2015 Fall Meeting, AGU, San Fran., CA, 14-18 Dec.

Fasola S.*, M. Brudzinski, N. Ghouse, K. Solada, S.M. Sit, E. Cabral-Cano, A. Arciniega-Ceballos, N. Kelly, C. DeMets, K. Jensen, (2015), New Perspective on the Transition from Flat to Steeper Subduction in Oaxaca, Mexico Based on Seismicity, Nonvolcanic Tremor, and Slow Slip, Abstract T21D-2864 presented at 2015 Fall Meeting, AGU, San Fran., CA, 14-18 Dec.

Friberg P.*, Brudzinski M., Skoumal R., Currie B., (2015), Observations of a hydrofracture induced earthquake sequence in Harrison County Ohio in 2014, Abstract S11C-03 presented at 2015 Fall Meeting, AGU, San Fran., CA, 14-18 Dec.

Busby R.*, Sumy D., Woodward R., Frassetto A., Brudzinski M., (2015), Leveraging EarthScope USArray with the Central and Eastern United States Seismic Network, Abstract S13B-2836 presented at 2015 Fall Meeting, AGU, San Fran., CA, 14-18 Dec.

Bilek S.*, Phillips W., Walter J., Peng Z., Schwartz S., Brudzinski M., Dongdong Y., (2015), Source Parameters for Repeating Earthquakes along the Middle America Trench, Abstract S44A-01 presented at 2015 Fall Meeting, AGU, San Fran., CA, 14-18 Dec.

Watkins W.*, Thurber C., Abbott E., Brudzinski M., Grand S., (2015), Local Earthquake Velocity and Attenuation Tomography of the Jalisco, Mexico Region, Abstract S23D-2767 presented at 2015 Fall Meeting, AGU, San Fran., CA, 14-18 Dec.

Skoumal R.*, Brudzinski M., Currie B., (2015), Optimizing multi-station template matching to characterize induced seismicity, Abstract presented at Schatzalp Workshop on Induced Seismicity, Davos, Switzerland, 10-13, Mar.

Brudzinski, M.R.*, Colella, H, Skoumal, R., Cabral-Cano, E., Arciniega-Ceballos, A., Graham, S., DeMets, C., Sit, S.M., Holtkamp, S., (2014), Relationships between Slow Slip and Earthquakes at the Brittle-Ductile Transition of Subduction Zones, Abstract S11B-4347 presented at 2014 Fall Meeting, AGU, San Fran., CA, 15-19 Dec.

Rodríguez-Domínguez, M.*, Perez-Campos X., Valencia-Cabrera D., Clayton R., Cordoba-Montiel F., Valdes-Gonzales C., Brudzinski M., Cabral-Cano E., Arciniega-Ceballos A., (2014), Transition on the Geometry of the Cocos Plate in Central-Southern Mexico., Abstract T11C-4572 presented at 2014 Fall Meeting, AGU, San Fran., CA, 15-19 Dec.

Wang R.*, Bilek S., Brudzinski M., Cabral-Cano E., Arciniega-Ceballos A., (2014), Source Variations of Small Magnitude Events in the Downdip Region of the Mexican Subduction Zone., Abstract S33B-4521 presented at 2014 Fall Meeting, AGU, San Fran., CA, 15-19 Dec.

Skoumal R.*, Brudzinski M., Currie B., (2014), Earthquakes Induced by Hydraulic Fracturing in Poland Township, Ohio, Abstract S51A-4431 presented at 2014 Fall Meeting, AGU, San Fran., CA, 15-19 Dec.

Brudzinski M.*, Skoumal R., Currie B., (2014), Optimizing Multi-Station Template Matching to Identify and Characterize Induced Seismicity in Ohio, Abstract S51A-4438 presented at 2014 Fall Meeting, AGU, San Fran., CA, 15-19 Dec.

Colella H.*, Brudzinski M., (2014), Investigation of small earthquakes and microseismicity at the down-dip end of the seismogenic zone associated with slow, Abstract T41E-08 presented at 2014 Fall Meeting, AGU, San Fran., CA, 15-19 Dec.

Graham S.*, DeMets C., Cabral E., Kostoglodov V., Walpersdorf A., Cotte N., Brudzinski M., McCaffrey R., Salazar-Tlaczani L., (2014), GPS Constraints on the Mw=7.5 Ometepec Earthquake Sequence, Southern Mexico: Coseismic and Postseismic Deformation, Abstract G51C-07 presented at 2014 Fall Meeting, AGU, San Fran., CA, 15-19 Dec.

Skoumal R.*, Brudzinski M., Currie B., (2014), Earthquakes Induced by Hydraulic Fracturing in Poland Township, Ohio, Presented at SEG/SPE/ARMA Injection Induced Seismicity Workshop, Banff, Canada, 15-18 Sept.

Colella, H, Brudzinski, M R, Richards-Dinger, K B, (2013), Investigation of the ability for slow slip events to trigger earthquakes through a comparison of seismic and geodetic observations with fault slip simulations, Abstract S33D-2472 presented at 2013 Fall Meeting, AGU, San Francisco, Calif., 9-13 Dec.

Rasor, B A, Brudzinski M R, (2013), Data Mining for Tectonic Tremor in a Large Global Seismogram Database using Preprocessed Data Quality Measurements, Abstract S33D-2472 presented at 2013 Fall Meeting, AGU, San Francisco, Calif., 9-13 Dec.

Watkins, W D, Colella, H, Brudzinski, M R, Dieterich, J H, Richards-Dinger, K B, (2013), Investigating the origins of observed variability of slow slip events with fault slip simulations, Abstract S33D-2472 presented at 2013 Fall Meeting, AGU, San Francisco, Calif., 9-13 Dec.

Skoumal R.*, Brudzinski M.R., (2013), Correlation Methods to Better Characterize Repeating Seismic Events, Abstract S33D-2472 presented at 2013 Fall Meeting, AGU, San Francisco, Calif., 9-13 Dec.

Holtkamp, S.*, Brudzinski, M.R., Currie, B.S., (2013), Detecting and Monitoring for Induced Seismicity without a Local Seismic Network: Application to the Youngstown, Ohio Induced Seismic Sequence, Abstract S33D-2472 presented at 2013 Fall Meeting, AGU, San Francisco, Calif., 9-13 Dec.

Holtkamp, S.*, Currie, B.S., Brudzinski, M.R., (2013), Template matching to build a high quality earthquake catalog of the 2011 Youngstown, Ohio seismic sequence and test its relation to a local wastewater injection well, Paper No. 274-5 presented at 2013 GSA Meeting.

Currie, B.S., Grope, C.L., Holtkamp, S., Brudzinski, M.R., (2013), An evaluation of possible seismicity induced by deep wastewater injection in Ohio: comparisons between active wells and the 2011 Youngstown earthquake sequence, Paper No. 379-3 presented at 2013 GSA Meeting.

Holtkamp, S.*, Currie, B., Brudzinski, M., (2013), A more complete catalog of the 2011 Youngstown, Ohio earthquake sequence from template matching reveals a strong correlation to pumping at a wastewater injection well, AAPG Search and Discovery Article #90163, 2013 Annual Convention and Exhibition, Pittsburgh, May 19-22.