

Vita
DOUGLAS A. WIENS

Address: Department of Earth and Planetary Sciences
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Education:

Ph.D., Geological Sciences, Northwestern University, 1985
M.A., Geological Sciences, Northwestern University, 1982
B.A., Physics, Wheaton College (Ill.), 1980

Appointments:

Robert S. Brookings Distinguished University Professor, 2016-present
Visiting Professor, Earthquake Research Institute, University of Tokyo, 2014
Tuve Senior Fellow, Dept. of Terrestrial Magnetism, Carnegie Inst. of Washington, 2013
Department Chair, Dept. of Earth and Planetary Sci., Washington University, 2008-2013
Visiting Fellow, Research School of Earth Sciences, Australian National Univ., 2005
Professor, Dept. of Earth and Planetary Sciences, Washington University, 1996-present
Associate Professor, Washington University, 1991-1996
Assistant Professor, Washington University, 1984-1991

Honors:

Antarctic Service Medal of the United States, 2000
Elected American Geophysical Union Fellow, 2007
NSF- Ridge2000 Distinguished Speaker, 2008
Robert and Bettie Cody Award in Ocean Sciences, Scripps Inst. Oceanography, 2014
IRIS/Seismological Society of America Distinguished Lectureship, 2015

Professional Service:

Advisory Committee on Earthquake Hazards Reduction, US Dept Commerce, 2020-present
Subduction Zones in 4 Dimensions (SZ4D) Steering Committee, 2019-present.
American Geophysical Union
 Seismology Section President 2017-2018
 Seismology Section President-Elect 2015-2016
 Council Leadership Team, 2015-2018
 Seismology Section Secretary 2008-2009
Incorporated Research Institutions in Seismology (IRIS):
 Chair, Board of Directors (elected): 2017-2019
 Instrumentation Services Standing Committee Chair, 2014-2016
 Board of Directors (elected): 2009-2012
 Executive committee: 1990-1991, 1994-1998
 Polar Networks Science Committee chair, 2008-2011
 Data Management System committee chair, 2006-2008
 Ocean Bottom Seismograph Pool Oversight Committee, 2011-2013

Professional Service (continued):

Scientific Committee for Antarctic Research (SCAR), US Geosciences Rep, 2010-2015
National Academy International Polar Year Planning Committee, 2003-2006
National Science Foundation Office of Polar Programs visiting committee, 2006
NSF- MARGINS program steering committee, 1997-2002 (chair 2006)
Ocean Drilling Program:
 Science Steering and Evaluation Panel (ISSEP), 1997-1998
 Science Committee (SCICOM), 1998-2001
NSF- RIDGE2000 program steering committee 2001-2006
NSF- RIDGE2000 program executive committee 2004-2006
Journal of Geophysical Research, Associate Editor, 1987-1989; 1992-1993
National Science Foundation review panels, 1994, 1998, 2004, 2007-2009, 2011, 2013, 2015
Ocean Bottom Seismograph Instrumentation Pool Oversight Committee, chair, 2000-2003

University Committees:

Arts and Sciences Curriculum Committee, 1993-1995
Arts and Sciences Faculty Council, 1997-1999 (chair 1999)
Arts & Sciences Advisory Committee on Tenure and Promotion, 2006-2009, 2022-2024
Review Committee on Faculty Personnel Procedures, 2016-2018

Memberships:

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

Field Experience:

Principal Investigator, GUANACO experiment, Chile and Argentina, 2018-2021
Chief Scientist, R/V Sikuliaq, Alaska Amphibious Community Experiment, 2018
Principal Investigator, Yesterday Camp, Ross Ice Shelf Seismic Experiment, 2014
Chief Scientist, R/V Thompson, Mariana Serpentinization Experiment, 2012
Chief Scientist, Byrd Field Camp, US Antarctic Program, 2011
Chief Scientist, R/V Kilo Moana, Lau Imaging Experiment, 2010
Chief Scientist, R/V Revelle, Lau Imaging Experiment, 2009
Principal Investigator, Gamburtsev Mountains Seismic Experiment (GAMSEIS), 2007-2009
Principal Investigator, Cameroon Volcanic Line Imaging Experiment, 2005-2007
Chief Scientist, R/V Wecoma, Mariana Ocean Bottom Seismograph Survey, 2004
Principal Investigator, Trans-Antarctic Mtns Seismic Experiment (TAMSEIS), 2000-2003.
Principal Investigator, Seismic Arrays in Fiji and Tonga (SAFT), 2001-2002
Principal Investigator, R/V Gould, South Shetland Ocean Bottom Seismograph Survey, 1998
Principal Investigator, Seismic Experiment in Patagonia and Antarctica, 1997-1999
Principal Investigator, Southwest Pacific Seismic Experiment (SPASE), 1993-1995
Co-Investigator, R/V Melville, Lau Backarc Ocean Bottom Seismograph Survey, 1994

Advising:

Postdoctoral Advising: Dapeng Zhao (1995-1997), Gideon Smith (1998-2003), James Conder (2000-2008), Rigobert Tibi (2000-2007), Xinlei Sun (2009-2012), Aubreya Adams (2012-2015), Garrett Euler (2013), Weisen Shen (2015-2018), Martin Pratt (2016-2017), Chen Cai (2019), Maeva Pourpoint (2018-2020), Andrew Lloyd (2018-2019), Hannah Mark (2019-2021), Walid Ben Mansour (2020-present)

Graduate Student Thesis Advising:

David E. Petroy, M. A., 1988; Thesis: “Historical seismicity and plate kinematics of the Northeast Indian Ocean”

Aristeo M. Pelayo, Ph.D., 1990; Thesis: “Earthquake source parameter inversion using body and surface waves: Application to tsunami earthquakes and to Scotia Sea seismotectonics”

An-Ning Zhu, Ph.D., 1993; Thesis: “Determination of seismic arrival times from long-period data and application to earthquake location problems and the velocity structure of subducting slabs”

Megan Flanagan, Ph.D., 1994, Thesis: “Upper mantle attenuation structure beneath back-arc basins using differential shear wave measurements”

Keith Koper, Ph.D., 1998, Thesis: “Computational aspects of Seismology”

Erich Roth, Ph.D., 1999, Thesis: “Upper mantle seismic structure of the Tonga Subduction Zone and Lau Basin: Implications for thermal heterogeneity”

Stacey Robertson Maurice, Ph.D. 2003, Thesis: “A seismological examination of the structure and tectonics of southernmost South America and the Antarctic Peninsula region”

Jesse Fisher Lawrence, Ph.D. 2004, Thesis: “Teleseismic Localization of Velocity and Quality Factor: Application to Patagonia, Antarctica, D”, and the Whole Mantle”

Sara H. Pozgay, Ph.D., 2007, Thesis: “Seismic Investigations of the Mariana Subduction System: Anisotropy, Attenuation, and Volcano Seismology”

Moira L. Pyle, PhD., 2009, Thesis: “Seismic Surface Wave Studies of the Mariana Mantle Wedge and the Transantarctic Mountains”

Mitchell Barklage, PhD., 2010, Thesis: Studies of mantle structure and seismicity in the Mariana Islands and Antarctica using temporary deployments of seismographs

Rachel Gesserman, M. A., 2011, Thesis: A dominant shear zone and other modes of deformation in the deep Tonga slab

David Heeszel, PhD., 2011, Thesis: Surface Wave Derived Shear Velocity Structure of the Gamburtsev Subglacial Mountains, Transantarctic Mountains, and West Antarctica

Heather Relyea, M.A., 2012, Project: Seismic attenuation of the Tonga-Fiji Region

Erica Emry, PhD, 2012, Thesis: Shallow Thrust and Outer Rise Earthquakes in Northwestern Pacific Subduction Zones and their Role in Subduction Zone Water Budgets with Special Focus on the Mariana Islands

Garrett Euler, PhD, 2012, Thesis: Seismic Array Analysis of Core-Diffracted Waves and Microseisms

Amanda Lough, PhD, 2014, Thesis: Studies of Seismic Sources in Antarctica^[1] Using an Extensive Deployment of Broadband Seismographs

Songqiao Wei, PhD, 2016, Thesis: Seismic studies of the Tonga Subduction Zone and Lau Backarc Basin

Martin Pratt, PhD, 2016, Thesis: Seismic array studies of Antarctica and Madagascar

Andrew Lloyd, PhD, 2018, Thesis: Seismic Tomography of Antarctica and the Southern Oceans: Regional and Continental Models from the Upper Mantle to the Transition Zone

Chen Cai, PhD, 2018, Thesis: Seismic structure near the Mariana trench and deep earthquake triggering in the Tonga flat slab

Melody Eimer, PhD, 2020, Thesis: Seismicity and Shallow Structure at the Mariana Subduction Zone

Current Ph.D. Graduate Students:

Zhengyang Zhou, Zongshan Li, Patrick Matulka, Jialin Li, Adrea Williams

Former Undergraduate Research Advisees:

Jeffrey McGuire, Hersh Gilbert, Tom Bawden, Brian Park-Li, Mark Wuenschel, Nathan Snider, Phil Skemer, Rebecca Stiles, John Russell; Emily Park, Franklin Koch, Grace Barcheck, Natalie Accardo, Hope Jaspersen, Seth Olinger, Yantao Luo

Teaching Experience:

EPSC 109A Quantitative Reasoning in
Environmental Sciences
EPSC 131 Natural Hazards
EPSC 353 Earth Forces
EPSC 361 Structural Geology
EPSC 404 Ideas and Controversies in the
Geosciences
EPSC 450 Introduction to Geophysics
EPSC 452 Introduction to Seismology

EPSC 453 Interior of the Earth
EPSC 454 Exploration and Environmental
Geophysics
EPSC 464 Plate Tectonics
EPSC 553 Geophysical Data Analysis
EPSC 559 Geodynamics
EPSC 561 Advanced Seismology
EPSC 564 Multidisciplinary Study of
Subduction Zones

Publications:

ResearcherID: J-9259-2016

ORCID iD: [0000-0002-5169-4386](https://orcid.org/0000-0002-5169-4386)

D. A. Wiens has been an author or co-author of more than 150 publications in refereed journals.