

CIRRICULUM VITAE: Andrew (Andy) M. Frassetto

Department of Geosciences, University of Arizona
1040 E. 4th St., Tucson, AZ 85721
andyf@email.arizona.edu

Education

University of Arizona (*Tucson, AZ*)
2004- Ph.D. Geosciences, Major: Seismology, Minor: Tectonics
Expected Completion: July 2009

University of South Carolina (*Columbia, SC*)
2004 B.S. Geophysics Magna Cum Laude with Honors, Minor: Math

Work Experience

University of Arizona (August 2004 - Present)

Graduate Associate in Department of Geosciences

Collection of global earthquake datasets using regionally distributed and multiple station arrays, modeling and inversion of direct and converted teleseismic body waves to develop tectonic models for the structure, composition, and fabric of the lithosphere.

ExxonMobil Upstream Research Company (May 2007 - August 2007)

Geoscience Intern in Integrated Seismic Research

Parameterized elastic tensor and predicted shear wave response for fractured, anisotropic reservoir rocks using proprietary software, performed preliminary shear wave splitting analysis of borehole shear-sourced vertical seismic profile.

University of South Carolina (January 2001 - June 2004)

Research Assistant in Department of Geological Sciences

Managed the 25 station South Carolina Earth Physics Project seismic network.

Publications

Peer-Reviewed and Invited

Frassetto, A. (2006), Tectonics of the Basin and Range Province and the Colorado Plateau, *IRIS Annual Report*, 20-21.

Frassetto, A., H. Gilbert, G. Zandt, S. Beck, M. Fouch (2006), Support of high elevation in the southern Basin and Range based on the composition and architecture of the crust in the Basin and Range and Colorado Plateau, *Earth Plan. Sci. Lett.* 249(1-2), 62-73.

Frassetto, A., T.J. Owens, P. Crotwell (2003), Evaluating the Network Time Protocol (NTP) for Timing in the South Carolina Earth Physics Project (SCEPP): *Seis. Res. Lett.* 74(5), 649-652.

Teaching

Incorporated Research Institutions for Seismology - Alumni Mentor in Education and Outreach Program

IRIS Undergraduate Internship Orientation (May 2006 - December 2008)

Assisted with logistics for a week-long orientation of interns in Socorro, NM, prepared and presented talks on introductory seismology research and preparing for graduate school, posed and answered questions, advised and mentored students remotely on the interns' blogs and group message-board throughout the summer. Current blogs:

<http://www.iris.edu/internship/blogger/list>

University of Arizona - Graduate Teaching Assistant in Department of Geosciences

Introduction to Geophysics (Spring Semester 2008)

Laboratory instructor; graded lab assignments, literature reviews, and quizzes; held office hours. 33 students enrolled. Performance evaluation: Superior.

Geological Disasters and Society (Spring Semester 2007)

Graded homework, in-class assignments, and exams; prepared and presented two lectures; held office hours. 151 students enrolled. Performance evaluation: Superior.

Awards and Honors

2008	John and Nancy Sumner Summer Research Scholarship
2008	Graduate College Travel Fellowship
2008	Best Talk Overall, Department Symposium
2007	Galileo Circle Scholar, College of Science
2007	First Place Talk in Geophysics, Department Symposium
2006	Third Place Talk in Tectonics, Department Symposium
2005	Second Place Talk in Geophysics, Department Symposium
2004-2008	National Science Foundation Graduate Research Fellowship
2004	First Place Poster in Geoscience, University Research Symposium
2003-2004	Barry M. Goldwater Scholar
2003	Incorporated Research Institutions for Seismology Internship
2000-2004	Society for Exploration Geophysicists Scholarship

Abstracts (Recent Professional Talks* and Posters)

***Frassetto, A.**, H. Gilbert, G. Zandt, T.J. Owens, C. Jones (2008), Seismic character of the crust and upper mantle beneath the Sierra Nevada, *Eos Trans. AGU*, 89(53), Fall Meet. Suppl., Abstract S33B-05.

Turner, S., **A. Frassetto**, R. Porter, G. Zandt (2008), Relating the Seismic Character of the Crust and Upper Mantle to Late-Cenozoic Extension in Southwestern N.A., *Eos Trans. AGU*, 89(53), Fall Meet. Suppl., Abstract S33B-1960.

Ryan, J.C., **A. Frassetto**, O. Hurd, G. Zandt, H. Gilbert, T. Owens, C. Jones (2008), Focal Mechanisms for Deep Crustal Earthquakes in the Central Foothills and Near Yosemite National Park in the Sierra Nevada, California, *Eos Trans. AGU*, 89(53), Fall Meet. Suppl., Abstract S33B-1957.

Frassetto, A., H. Gilbert, G. Zandt, T. Owens, C. Jones (2008), Detecting Delamination? Receiver functions and regional waveforms from the Central and Northern Sierra Nevada, 17th Annual IRIS Workshop, Stevenson, WA.

Frassetto, A., G. Zandt, K. Dueker, J. Calkins (2007), Shear Wave Splitting Results from the Coast Mountains Batholith, British Columbia, *Eos Trans. AGU*, 88(52), Fall Meet. Suppl., Abstract T11B-0568.

*Zandt, G., H. Gilbert, **A. Frassetto**, T. Owens, C. Jones (2007), Insights on Lithospheric Foundering from the Sierra Nevada Earthscope Project (SNEP), *Eos Trans. AGU*, 88(52), Fall Meet. Suppl., Abstract T31E-01.

Hubenthal, M., J. Taber, R. Aster, **A. Frassetto** (2007), Developing virtual REU cohorts: Reflections from the IRIS Undergraduate Internship Program, *Eos Trans. AGU*, 88(52), Fall Meet. Suppl., Abstract ED33B-1226.

Frassetto, A., G. Zandt, H. Gilbert, O. Hurd, I. Bastow, T. Owens, C. Jones (2007), Seismically anisotropic lower crust in the Central Sierra Nevada from Receiver Function Modelling and Inversion, 2nd Annual EarthScope National Meeting, Monterey, CA.

***Frassetto, A.**, I. Bastow, O. Hurd, G. Zandt, H. Gilbert, T. Owens, C. Jones (2006), Crustal anisotropy, deep crustal earthquakes, and the Moho hole beneath the west-central Sierra Nevada, California, *Eos Trans. AGU*, 87(52), Fall Meet. Suppl., Abstract T52B-02.

Frassetto, A., H. Gilbert, G. Zandt, S.L. Beck, M. Fouch (2006), Crustal thickness and composition of metamorphic core complexes in Southern Arizona, 16th Annual IRIS Workshop, Tucson, AZ.

Frassetto, A., H. Gilbert, S. Beck, K. Creager, G. Zandt, A. Wech (2005), Episodic tremor and slip and the alteration of the Juan de Fuca subduction interface, a feasibility study of time dependent teleseismic receiver functions, *Eos Trans. AGU*, 86(52), Fall Meet. Suppl., Abstract T33B-0536.

Wech A., K. Creager, W. McCausland, **A. Frassetto**, A. Qamar, S. DeRosier, J. Carmichael, S. Malone, D. Johnson (2005), Broadband Array Analysis of the 2005 Episodic Tremor and Slip Event in Northern Cascadia, *Eos Trans. AGU*, 86(52), Fall Meet. Suppl., Abstract G51B-0832.

Frassetto, A., H. Gilbert, G. Zandt, M. Fouch (2005), Stratigraphy of the Arizona Lithosphere and Evidence of Remnant Partial Melt Beneath the Colorado Plateau: Project COARSE, 1st Annual EarthScope National Meeting, Santa Ana Pueblo, NM.

Frassetto, A., H. Gilbert, G. Zandt, M. Fouch, S.L. Beck, T.J. Owens, E. Garnero (2004), Crust and upper mantle structure of the Southern Basin and Range and Colorado Plateau of Arizona: Project COARSE, *Eos Trans. AGU*, 85(47), Fall Meet. Suppl., Abstract T51C-0464.

Gilbert, H., **A. Frassetto**, M. Fouch, J. Yoburn, G. Zandt, S. Beck, T. Owens, E. Garnero (2004), Crust and upper mantle structure beneath the southern Basin and Range/Colorado Plateau region, 16th Annual IRIS Workshop, Tucson, AZ.

Frassetto, A., H. Gilbert, M. Fouch, S.L. Beck, G. Zandt, T.J. Owens, E. Garnero (2003), A COARSE Receiver Function Survey of the Southern Arizona Lithosphere, *Eos Trans. AGU*, 84(46), Fall Meet. Suppl., Abstract ED41B-1161.

Affiliations

Geological Society of America (2006), American Geophysical Union (2002), Society of Exploration Geophysicists (2000)

Service

Vice-President Geosciences Graduate Student Organization (2005-2006), Organized effort to create orientation field trip for incoming graduate students.

Organizer and co-chair "GeoDaze" 33rd Annual Department Geoscience Symposium (2004-2005), Responsible for all aspects of AGU-style conference.

Skills

Proficient in matlab, seismic analysis code, generic mapping tools, promax, and unix scripting environments. High level of experience in seismic field operations; e.g. selecting and permitting sites, testing instruments, building infrastructure, collecting both controlled source and natural source seismic data, and limited database management.

Sierra Nevada EarthScope Project (2006-2007: 8 weeks)

Batholiths Continental Dynamics Experiment (2005-2006: 10 weeks)

Episodic Tremor and Slip Mini-Array Experiment (2005: 1 week)

Deep Reflection Acquisition Constraining Unusual Lithospheric Activity (2004: 4 weeks)

Consortium for an Arizona Reconnaissance Seismic Experiment (2003-2007: 2 weeks)

Summer of Applied Geophysical Experience REU (2002: 3 weeks)

References

Dr. George Zandt (Graduate Advisor)
University of Arizona
520-621-2273
gzandt@email.arizona.edu

Dr. Susan Beck
University of Arizona
520-621-8628
slbeck@email.arizona.edu

Dr. Thomas J. Owens (Undergraduate Advisor)
University of South Carolina
803-777-4530
owens@seis.sc.edu

Mr. Michael Hubenthal (Internship Program Supervisor)
Incorporated Research Institutions for Seismology
202-682-2220
hubenth@iris.edu