

Einat Lev

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Education:

2003-present Massachusetts Institute of Technology, Cambridge, MA.
PhD candidate in geophysics. Advisor: Bradford H. Hager
Thesis title: *Seismic and Viscous Anisotropy in the Earth's Mantle: Observations and Implications*
Expected date of graduation: Spring 2009

1998-2001 Tel-Aviv University, Tel-aviv, Israel. Bachelor of Science, cum laude.
Double Major in Geophysics and Computer Science.

Research Interests:

- Global and regional geodynamics
- Numerical modeling of geodynamical processes
- Seismic and viscous anisotropy
- Tectonics of plate boundaries
- Rheology of geologic materials

Teaching Experience:

Fall 2005, Fall 2006 Teaching Assistant for Geodynamics (MIT 12.520) - Graduate level
Spring 2005, Spring 2006 Teaching Assistant for Application of Continuum Mechanics in Earth Sciences (MIT 12.005) - Undergraduate level

Publications - journal articles:

- **Lev, E.** and B.H. Hager, *Anisotropic viscosity changes the thermal structure of subduction zone wedges*, Geophys. Res. Lett., in review
- **Lev, E.** and B.H. Hager, *Prediction of anisotropy from flow models – a comparison of three methods*, Geochem. Geophys. Geosys., v. 9 (2008), Q07014, doi:10.1029/2008GC002032
- **Lev, E.** and B.H. Hager, *Rayleigh-Taylor Instabilities with anisotropy lithospheric viscosity*, Geophys. Jour. Int., v. 173 (2008), p. 806-814
- Sol, S., Meltzer, A., Burgmann, R., van der Hilst, R.D., King, R., Chen, Z., Koons, P.O., **Lev, E.**, Liu, Y.P., Zeitler, P.K., Zhang, X., Zhang, J., Zurek, B., *Geodynamics of the southeastern Tibetan Plateau from seismic anisotropy and geodesy*, Geology, v. 35 (2007), p. 563-566.
- **Lev, E.**, M. D. Long and R.D. van der Hilst, *Seismic anisotropy in eastern Tibet from shear wave splitting reveals changes in lithospheric deformation*, Earth. Planet. Sci. Lett., v. 251 (2006), p. 293-304.

Presentations and Posters:

- ◇ Anisotropic viscosity in geodynamical models - invited talks:
 - LDEO geodynamics seminar, Lamont-Doherty Earth Observatory, February 2009
 - Physics Department Colloquium, Colorado University-Boulder, February 2009
 - Gordon Research Conference in Rock Deformation, August 2008
 - CIG Mantle convection and lithospheric dynamics, July 2008
 - Geophysics seminar, Princeton University, April 2008
 - Geology and Geophysics seminar, Brown University, Providence, RI, March 2007
 - Geology and Geophysics seminar, WHOI, Woods Hole, MA, October 2006

◇ Seismic Anisotropy in Eastern Tibet from Shear-Wave Splitting:

- E. Lev, M. D. Long and R.D. van der Hilst, International workshop on seismic anisotropy, Trest, Czech Republic, June 2006
- E. Lev, M. D. Long and R.D. van der Hilst, Fall AGU Meeting, San Francisco, CA, December 2005

◇ Mixing of Differentiated Oceanic Crust in a Convecting Mantle with Depth and Temperature Dependent Properties

- E. Lev and B. H. Hager, 9th International Workshop on Numerical Modeling of Mantle Convection and Lithospheric Dynamics, Erice, Italy, September 2005

Awards and Honors:

2006	EAPS award for excellence in teaching
2005	Best student presentation award, AGU Fall meeting, December 2005, San Francisco
2003-2004	MIT Presidential Fellow
2000	Best Programming Project Award, Tel-Aviv University
1999	The Rafi Katzman Award for Excellence in Freshmen Year Studies, Tel-Aviv University

Conferences and workshops attended:

August 2008	Gordon Research Conference on Rock Deformation, Tilton, NH (invited speaker)
July 2008	CIG meeting "numerical modeling of mantle convection", Davis, CA (Invited speaker)
May 2008	ExxonMobile field workshop, Annandale, NJ
March 2008	Microtexture analysis, Workshop with R. Heilbronner, MIT
September 2007	Numerical modeling of mantle convection and lithospheric dynamics, Carry La-Rouet, France
August 2007	The Cutting Edge "Preparation for an academic career in geosciences" workshop, Madison, WI
June 2007	Gordon conference "Interior of the Earth", Mt. Holyoke, MA
July 2006	MYRES II, Verbana, Italy
June 2006	International workshop on seismic anisotropy, Trest, Czech Republic
October 2005	NSF-supported F2P (Forward To Professorship) workshop, Cambridge, MA
June 2005	CIG meeting "Numerical modeling of mantle convection", Boulder, CO
June 2005	Gordon conference "Interior of the Earth", Mt. Holyoke, MA
September 2005	International school of Geophysics meeting, Erice, Italy
December 2003	AGU Fall meeting, San Francisco, CA

Professional service:

2007-present Peer-reviewed articles for:

Geology, Tectonophysics, Earth and Planetary Science Letters, and Geophysical Journal International

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| 2007 | AGU Fall meeting | Organizer of a special session focused on "Rheological Anisotropy" |
| 2006 | AGU Fall meeting | Session chair for Tectonophysics/Seismology |

University Service:

2006-2007	Secretary of EAPS graduate students advisory council (EGSAC) (member 2003 - present)
2005-2006	Organizer of the Geology and Geophysics weekly students seminar
2005-present	Coordinator of Graduate Student Mentoring program in EAPS
2004	Organizing Committee of Geophysics monthly seminar

Community outreach programs:

July-August 2007	Teacher of "Introduction to geology" class, MIT's High-School Summer Program (HSSP)
2005 - present	Mentor in KEYS (Keys to Empowering Youth) project at MIT

Computer skills:

Programming Languages: Matlab (fluent), C (fluent), C++ (some), Fortran (some)
Numerical modeling codes: Underworld, Citcom, Conman, Adina, GeoFest
Seismology codes: SAC, Seismic Handler, IRIS SeismoQuery tool
Mapping tools: ArcGIS
Crystallography tools: D-Rex, ImageSXM

Field Experience:

June 2008 WHOI Geodynamics field trip, Costa Rica
July 2006 Deployment of a PASSCAL-Earthscope seismic network in the Cascades, WA
January 2006 Geologic Mapping Field Camp, Southern Arizona
September 2004 Geology field trip to Sichuan province (Eastern Tibet), China
January 2004, January 2008 Geophysics Field Camp, Riverside Mountains, Southern California

Languages:

Hebrew (native), English (fluent), some Spanish and Arabic

A member of the American Geophysical Union (AGU) since 2003