Harriet C.P. Lau

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Positions

2017 – onwards	Junior Fellow Society of Fellows, Harvard University, USA

Education

2012 – 2017	Harvard University, USA Ph.D. in Earth and Planetary Sciences Thesis Advisor: Prof. Jerry X. Mitrovica
2008 – 2012	Imperial College London, UK Master of Science in Geophysics (with First Class Honors) Thesis Advisors: Dr. Saskia Goes & Dr. Rhodri Davies
2010 – 2011	Massachusetts Institute of Technology, USA Visiting student, Department of Earth Atmospheric & Planetary Sciences Academic Advisor: Prof. Daniel Rothman

Awards

2016	American Geophysical Union (AGU) *Study of the Deep Earth Interior Graduate Research Award*
2016	Harvard Graduate School of Arts and Sciences *Merit Research Fellowship*
2015	Geophysical Journal International's *Best Student Author Award* for "A normal mode treatment of semi-diurnal body tides on an aspherical, rotating and anelastic Earth"
2015	Departmental *Shaler Teaching Award* for Introduction to Global Geophysics (Fall 2014)
2013 – 2017	The Harvard Bok Center's *Certificate for Distinction in Teaching* (2013–2015, 2017)
2013	The AGU *Outstanding Student Paper Award* for the oral presentation of "Constraining Deep Earth Structure Using Tidal Tomography"
2012	Imperial College's *ESE Student Centenary Prize* for outstanding Masters Theses
2008 – 2012	Imperial College's *Ash Music Scholarship* for piano studies at the Royal College of Music

Teaching

2013 – 2017	Teaching Fellow for undergraduate courses "Global Geophysics" and "A Brief History of Earth" (Harvard)
2014	Volunteer Virtual Teaching: Remote lessons in natural disasters at Spring Hill Elementary School, Austin, TX
2011 – 2012	Teaching Assistant for undergraduate course in Statistics/Computing (Imperial)
2009 – 2010	Volunteer science teacher at elementary schools in disadvantaged areas in London (Pimlico Connection)

Memberships

2013 – present	European Geosciences Union
2012 – present	American Geophysical Union
2012 – present	Associate of the Royal School of Mines

Conference/Workshop Presentations

American Geophysical Union (Dec 2016): Oral presentation titled "Tidal Tomgoraphy: New Insights into Long Wavelength Deep Mantle Buoyancy Structure" (Abstract number: DI23C-05)

Study of the Deep Earth Interior Meeting (July 2016): Poster presentation titled "Anelasticity across seismic to tidal timescales: a self-consistent approach"

PLIOMAX Workshop (Grant funded by NSF) (Jan 2016): Oral presentation titled "Revisiting Viscosity and its Importance in Predicting Long-Term Sea Level"

European Geosciences Union (April 2015): Poster presentation titled "Towards Tidal Tomography: Using Earth's Body-Tide Signal to Constrain Deep-Mantle Density Structure" (Abstract ID: 9131)

American Geophysical Union (Dec 2014): Poster presentation titled "Tidal Tomography: Constraining Long-Wavelength Deep Mantle Structure Using Earth's Body Tide Signal" (Abstract number: DI41A-4315)

American Geophysical Union (Dec 2013): Oral presentation titled "Constraining Deep Earth Structure Using Tidal Tomography" (Abstract number: DI41B-01)

Invited Talks/Seminars

University of Michigan, Mar 2018, *Smith Lecture Series*: Title TBD

McGill University, Feb 2018, *Earth and Planetary Sciences Department Seminar Series*: Title TBD

Massachussetts Institute of Technology, May 2017, *Special Seminar Series*: "Tidal Tomography: New Insights into Earth's Deep Mantle Buoyancy"

University of California Berkeley, March 2017, *Berkeley Earth and Planetary Science Seminar*: "Tidal Tomography and Deep Mantle Buoyancy"

Brown University, February 2017, *Lunch Bunch Seminar*: "Tidal Tomography and Deep Mantle Buoyancy"

Princeton University (Geosciences Department), October 2016, *Brown Bag Seminar*: "Using Tidal Tomography to Constrain Deep Mantle Buoyancy"

Columbia University (LDEO), April 2016, *Marine Geology and Geophysics/Seismology, Geodesy and Tectonics Seminar*: "Large-scale Mantle Density and Viscosity Structure"

Service

2017	NSF Proposal Reviewer
2015	Graduate student field trip leader to the southwest US (10 days in Arizona, Utah, and Nevada)
2014 – 2015	Solid Earth graduate student seminar organizer

Publications

Lau, H.C.P., Davis, J.L., Mitrovica J.X., Tromp, J., Al-Attar, D., Latychev, K., and Yang, H.-Y. "Using Tidal Tomography to Constrain Deep Mantle Buoyancy", accepted 09/2017, *Nature*.

Wilmes, S.-B., Mattias Green, J.A., Gomez, N., Rippeth, T.P., and **Lau, H.C.P.** "Global tidal impacts of large-scale ice-sheet collapses", accepted 09/2017, *Journal of Geophysical Research: Oceans*.

2017 **Lau, H.C.P.**, Faul, U., Mitrovica, J.X., Al-Attar, D., Tromp, J., and Garapic, G. "Anelasticity across Seismic and Tidal Timescales: a Self-Consistent Approach", *Geophysical Journal International*, 208(1): 368-384.

2016 Hay, C.C., **Lau, H.C.P.**, Gomez, N., Austermann, J., Powell, E., Mitrovica, J.X., Latychev, K., and Wiens, D. "Sea-level fingerprints in a region of complex Earth structure: The case of WAIS", *Journal of Climate*, 30(6): 1881-1892.

2016 **Lau, H.C.P.**, Mitrovica, J.X., Austermann, J., Crawford, O., Al-Attar, D., and Latychev, K. "Inferences of Mantle Viscosity Based on Ice Age Datasets: I. Radial Structure", *Journal of Geophysical Research: Solid Earth*, 121: 6991-7012.

2016 Goldberg, S., **Lau, H.C.P.**, Mitrovica, J.X., and Latychev, K. "The Timing of the Black Sea Flood Event: Insights from Modeling of Glacial Isostatic Adjustment", *Earth and Planetary Science Letters* 452: 178-184.

2015 **Lau, H.C.P.**, Yang, H.-Y., Tromp, J., Mitrovica, J.X., Latychev, K., and Al-Attar, D., "A normal mode treatment of semi-diurnal body tides on an aspherical, rotating and anelastic Earth", *Geophysical Journal International* 202(2): 1392-1406.

2015 Davies, D.R., Goes S., **Lau, H.C.P.** "Thermally Dominated Deep Mantle LLSVPs: A Review" in "The Earth's Heterogeneous Mantle: A Geophysical, Geodynamical, and Geochemical Perspective". Khan, A., Deschamps, F. (Eds). Springer International Publishing.