Harriet C.P. Lau

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Positions	2019 – present	Assistant Professor Earth and Planetary Science, University of California, Berkeley, USA
	2017 – 2019	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	2019	Lecturer for "The Planet Earth" (UC Berkeley)
	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 Oral Presentations

AGU (Dec 2019): "Viscoelasticity of the lower mantle from seismic timescales to convection" (Abstract number: DI33A-03)

AGU (Dec 2018): "Anelasticity from Seismic to Tidal Timescales: Theory and Observations" (Abstract number: MR31A-07)

AGU (Dec 2017): "Constraining LLSVP Buoyancy With Tidal Tomography" (Abstract number: DI43C-06)

AGU (Dec 2016): "Tidal Tomography: New Insights into Long Wavelength Deep Mantle Buoyancy Structure" (Abstract number: DI23C-05)

AGU (Dec 2013): "Constraining Deep Earth Structure Using Tidal Tomography" (Abstract number: DI41B-01)

Invited Talks/Seminars

Caltech (Pasadena, CA), Mar 2020, *Caltech Seismo Lab Seminar*

UCLA (Los Angeles, CA), Jan 2020, *Earth, Planetary, and Space Science Colloquium*

UCSC (Santa Cruz, CA), Jan 2020, *Whole Earth Seminar*

SAGE/GAGE Workshop (Portland, OR), Oct 2019, *Plenary Speaker on Earth Rheology and Structure: New Approaches, Applications, and Implications for Dynamics*

European Geosciences Union Meeting (Vienna, Austria), April 2019, *Seminar on Mantle Structure and Evolution*

Yale University, February 2019, *Departmental Colloquium*

Johns Hopkins University, November 2018, *Bromery Lecture*

University of British Columbia, September 2018, *Departmental Colloquium*

Study of the Earth's Deep Interior Conference (Edmonton, Canada), July 2018, *Zatman Lecture*

University of Michigan, Mar 2018, *Smith Lecture*

McGill University, Feb 2018, *Earth and Planetary Sciences Department GEOTOP Lecture*

Massachussetts Institute of Technology, May 2017, *Special Seminar*

University of California Berkeley, March 2017, *Berkeley Earth and Planetary Science Departmental Seminar*

Brown University, February 2017, *Lunch Bunch Seminar*

Princeton University (Geosciences Department), October 2016, *Brown Bag Seminar*

Columbia University (LDEO), April 2016, *Marine Geology and Geophysics/Seismology, Geodesy and Tectonics Seminar*

Service

2020 – present	Member of the Global Seismic Network Standing Committee (Incorporated Research Institutions for Seismology)
2019 – present	Ramsden Committee (UC Berkeley)
2018	AGU Session Convener
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

Proposals Awarded

2019 – 2022	NSF1923865: "Constraints from Multiple Low Frequency Data on the Long Wavelength Density Structure in the Deep Mantle".

Publications

2019 **Lau, H.C.P.** and Holtzman, B.K. " 'Measures of dissipation in viscoelastic media' extended: Towards continuous characterization across very broad geophysical time scales", *Geophysical Research Letters*, 46(16): 9544-9553.

2019 **Lau, H.C.P.** and Faul, U. "Anelasticity from Seismic to Tidal Timescales: Theory and Observations", *Earth and Planetary Science Letters*, 508: 18-29.

2018 **Lau, H.C.P.**, Austermann, J., Mitrovica, J.X., Crawford, O., Al-Attar, D., and Latychev, K. "Inferences of Mantle Viscosity based on Ice Age Datasets: The Bias in Radial Viscosity Profiles due to the Neglect of Laterally Heterogeneous Viscosity Structure", *Journal of Geophysics: Solid Earth*, 123: 7237-7252

2018 Crawford, O., Al-Attar, D., Tromp, J., Mitrovica J.X., Austermann, J., and **Lau, H.C.P.** "Quantifying the sensitivity of post-glacial sea level change to laterally varying viscosity", *Geophysical Journal International*, 214(2): 1324-1363.

2017 **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", *Nature*, 551:321-326.

2017 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", *Journal of Geophysical Research: Oceans*, 122.

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.