

## Li Zeng

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## Education

**Harvard University** PhD, Astronomy & Astrophysics May 2015

Advisor: Professor Dimitar Sasselov. Thesis: "Interior Structure and Chemistry of Solid Exoplanets".

**Harvard University** AM, Astronomy & Astrophysics May 2011

Advisor: Professor Dimitar Sasselov. Research Exam: "New High-Pressure Equation of State (EOS) of Water and Its Implication for GJ 1214b and other Water Planets".

**Massachusetts Institute of Technology** SB, Physics June 2009

Advisor: Professor Sara Seager. Research Project: "A Computational Tool to Interpret the Bulk Composition of Solid Exoplanets based on Mass and Radius Measurements". Elected to ΦBK and ΣΠΣ. GPA 5.0/5.0.

## Professional Appointment

**Harvard University** Simons Postdoctoral Fellow 06/2015-Present

Advisor: Professor Stein Jacobsen. Simons Collaboration on the Origins of Life. Research focus on understanding chemistry of planet interior and formation, including Earth-like planets and water worlds.

**Harvard University** Teaching Fellow 2011 and 2012

SPU (Science of the Physical Universe) 30: Life as a Planetary Phenomenon. Harvard Undergraduate General Education Course.

## Publications

"Growth Model Interpretation of Planet Size Distribution". Li Zeng, Stein B. Jacobsen, Dimitar D. Sasselov, Andrew Vanderburg, Mercedes Lopez-Morales, Juan Perez-Mercader, Michail I. Petaev, Thomas R. Mattsson, Gongjie Li, and Matthew Z. Heising. *in prep*, 2018.

"Survival Function Analysis of Planet Size Distribution". Li Zeng, Stein B. Jacobsen, Dimitar D. Sasselov, Andrew Vanderburg. MNRAS, 479, 4, 2018, <https://doi.org/10.1093/mnras/sty1749>.

"Eyes on K2-3: A System of Three likely sub-Neptunes characterized with HARPS-N and HARPS". Mario Damasso, Aldo Bonomo, ..., Li Zeng, et al. A&A (Astronomy and Astrophysics), 615, A69, 2018.

"A Simple Analytical Model for Rocky Planet Interior". Li Zeng, and Stein B. Jacobsen. ApJ, 837, 164, 2017, <https://doi.org/10.3847/1538-4357/aa6218>.

"Planet Size Distribution from the Kepler Mission and Its Implication for Planet Formation". Li Zeng, Stein B. Jacobsen, et al. 48th LPSC Abstract 1576 (2017), <https://arxiv.org/abs/1806.05909>.

"Exoplanet Radius Gap Dependence on Host Star Type". Li Zeng, Stein B. Jacobsen, Dimitar D. Sasselov. Research Notes of the AAS (RNAAS), 2017, <http://iopscience.iop.org/article/10.3847/2515-5172/aa9ed9>.

"Variational Principle for Planetary Interiors". Li Zeng, and Stein B. Jacobsen. ApJ, 829, 18, 2016, <https://doi.org/10.3847/0004-637X/829/1/18>.

"Kepler-21b: A rocky planet around a  $V = 8.25$  magnitude star". Mercedes Lopez-Morales, Raphaelle Haywood, Jeffrey Coughlin, Li Zeng, Lars Buchhave, et al. AJ, 152, 204, 2016.

"Mass-Radius Relation for Rocky Planets based on PREM". Li Zeng, Dimitar D. Sasselov, and Stein B. Jacobsen. ApJ, 819, 127, 2016.

"Characterizing K2 Planet Discoveries: A Super-Earth Transiting the Bright K Dwarf HIP 116454". Andrew Vanderburg, Benjamin Montet, John Johnson, Lars Buchhave, Li Zeng, et al. ApJ, 800, 59, 2015.

"Kepler-93b: A Terrestrial World Measured to within 120 km, and a Test Case for a New Spitzer Observing Mode". Sarah Ballard, William Chaplin, David Charbonneau, ..., Li Zeng, et al. ApJ, 790, 12, 2014.

"The Effect of Temperature Evolution on the Interior Structure of H<sub>2</sub>O-rich Planets". Li Zeng and Dimitar D. Sasselov. ApJ, 784, 96, 2014.

"A Detailed Model Grid for Solid Planets from 0.1 through 100 Earth Masses". Li Zeng and Dimitar D. Sasselov. PASP, 125, 227, 2013.

"A Computational Tool to Interpret the Bulk Composition of Solid Exoplanets based on Mass and Radius Measurements". Li Zeng and Sara Seager. PASP, 120, 983, 2008.