Li ZENG
Harvard College Observatory, MS-10
60 Garden Street, Cambridge, MA 02138

http://www.cfa.harvard.edu/~lzeng
lzeng@cfa.harvard.edu
lizeng@fas.harvard.edu

Education

Candidate for PhD in Astronomy *July 09-present*
Department of Astronomy, Graduate School of Arts and Sciences, Harvard University
Cambridge, MA
- Major: Astronomy

Bachelor of Science in Physics *Sept. 06-June 09*
Massachusetts Institute of Technology, Cambridge, MA
- Major: Physics
  Math & Physics GPA: 5.0/5.0, Cumulative GPA: 5.0/5.0

Peking University, Beijing, China (transferred to MIT) *Fall 05-Spring 06*
- Major: Physics
  Math & Physics GPA: 4.0/4.0, Cumulative GPA: 3.9/4.0

Selected course work at Harvard: Radiative Processes in Astrophysics (Astronomy 150), Galaxies and Dynamics (Astronomy 202a), Cosmology (Astronomy 202b), Mechanics in Earth and Environmental Science (E-PSCI 202), Stellar and Planetary Astrophysics (Astronomy 201a), Quantum Mechanics for Astrophysics (Astronomy 251), Evolution of the Vertebrates (OEB 139), Interstellar Medium and Star Formation (Astronomy 201b), Astronomy Journal Club (Astronomy 301hf)

Selected course work at MIT: General Relativity (8.962), Modern Astrophysics (8.284), Electromagnetism II (8.07), Classical Mechanics III (8.09), Quantum Physics I, II, & III (8.04, 8.05, 8.06), Experimental Physics I & II (8.13, 8.14), Differential Equations (18.03)

Research Experience

Research at Harvard Astronomy Department/ Harvard-Smithsonian Astrophysics Observatory *Summer 2009-present*
- Research Project: Prediction of the Mass-Radius Relation of Super-Earth Planets.
- Research Advisor: Prof. Dimitar Sasselov, Director of Harvard Origins of Life Initiative.

Summer Research at Harvard Astronomy Department/ Harvard-Smithsonian Astrophysics Observatory *Summer 2008*
- Research Project with Prof. Dimitar Sasselov, on exoplanet and The Walsworth Group on Astrocomb.
- Simulating the output of Astrocomb beam and producing computer programs for the mass-radius relation of Earth-like exoplanets.

Research at Lowell Observatory *January 2008*
- Research Project with Brian W. Taylor from Boston University.
- Calculation and Programming of the strip scan mode (viz. TDI mode) on CCD.
- Successful implementation of Time Delay Integration (TDI) mode on the Perkins Re-imaging System (PRISM) of the 72" Perkins Telescope located at Anderson Mesa, Arizona.

Summer Research at MIT Department of Earth, Atmospheric and Planetary Science (EAPS) *Summer 2007*
- Research Project with Prof. Sara Seager on mass-radius relation of exoplanet
- Building computer codes for the calculation of the interior structure of extra-solar planets based on mass and radius measurements.
- Paper published on Publications of the Astronomical Society of the Pacific (PASP)

Research Publications	**Li Zeng**, and Sara Seager. "A Computational Tool to Interpret the Bulk Composition of Solid Exoplanets based on Mass and Radius Measurements". In the Publications of the Astronomical Society of the Pacific (PASP), Chicago Journals, Volume 120: 983-991, September 2008.	*September 2008*
Publications in Preparation	**Li Zeng** and Dimitar Sasselov. "Transiting Super-Earth GJ1214b: Assessing Interior Model Uncertainties for Super-Earths".	*2011*
Selected Conference Proceedings	Adam Maxwell, Darin Ragozzine, Lesley Rogers, Sara Seager and **Li Zeng**. "The Value of K2 in Determining Interior Composition of Terrestrial Planets". Presentation in the poster session in the 218th American Astronomical Society Meeting, Boston, MA	*May 2011*
Teaching Experience	Teaching Fellow for the "Science of the Physical Universe 30: Life as a Planetary Phenomenon". The lecture was taught by Prof. Dimitar Sasselov.	*Spring, 2011*
Conferences Attended	218th American Astronomical Society (AAS) Meeting, Boston, MA	*May 22-26, 2011*
	Gordon Research Conference: Origins of Solar Systems, Mount Holyoke College, South Hadley, MA	*July 17-22, 2011*
Talks Given	"Earth Encounters as the Origin of Fresh Surfaces on Near-Earth Asteroids", Astronomy 301hf Journal Club talk at Harvard Center for Astrophysics	*Nov. 9, 2010*
	"Searching for Life in the Outer Solar System", Student Journal Club Talk at Harvard Chemistry Department	*July 24, 2011*
	"Understanding the Interior Structure of Solid Exoplanets", Origins Chalk Talk at the Biolabs Room 1058 at Harvard University	*Oct. 06, 2011*
	"Buddhism and Astronomy", Dinner with Dharma at the Greater Boston Buddhist Cultural Center	*Nov. 11, 2011*

Honors/Awards

VIII-th International Astronomy Olympiad *Oct. 2003*

- 1st Prize (Gold Medal)
- Best Result of the theoretical, observational and practical rounds in total among all competitors.
- Represented China to attend this competition.
- Competition held in Stockholm, Sweden, by European Association for Astronomy Education, Stockholm Observatory and the Swedish National Space Board with a coordination of the Olympic Coordination Council of the Euro-Asian Astronomical Society (EAAS).

VII-th International Astronomy Olympiad *Oct. 2002*

- 2nd Prize (Silver Medal)
- Best Result in the observational round
- Competition held at the Special Astrophysical Observatory of Russian Academy of Sciences (SAO RAS) in North Caucasus.
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Recipient of Jack C Tang Scholarship at MIT *2006-2009*

Lifetime member of The National Society of Collegiate Scholars (NSCS) in U.S. *2007-present*

Member of Sigma Pi Sigma (ΣΠΣ) *2009-present*

- National Physics Honor Society and received into the Chapter at Massachusetts Institute of Technology
- In recognition of high scholarship in Physics
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Member of Phi Beta Kappa (ΦBK) *2009-present*

- By the action of the Xi of Massachusetts at the Massachusetts Institute of Technology
- In recognition of high attainments in liberal scholarship
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James Mills Peirce Fellowship *2009*

Philip Putnam Chase Memorial Fellowship *2010*

Philip Putnam Chase Memorial Fellowship *2011*

Skills/Abilities

Languages
- Chinese (mother tongue)
- English (fluent)

Computer Languages
- C
- Matlab
- Mathematica

Math & Physics skills
- Tensor Analysis
- Calculus of Variations
- Linear Algebra

Arts
- Pencil Sketch
- Traditional Chinese Painting

Music
- Piano
- Singing

Sports
- Swimming
- Badminton
- Table-Tennis
- Tai Chi