

ELLEN M. PRICE

Center for Astrophysics | Harvard & Smithsonian, 60 Garden St., MS-10, Cambridge, MA 02138

☎ (205) 335-8604 ✉ ellen.price@cfa.harvard.edu 🌐 [emprice](https://emprice.org) 🆔 0000-0002-3286-3543

Education

Harvard University, Cambridge, MA, USA <i>Doctor of Philosophy in Astronomy and Astrophysics</i>	expected May 2021
Harvard University, Cambridge, MA, USA <i>Master of Arts in Astronomy and Astrophysics</i>	May 2018
California Institute of Technology, Pasadena, CA, USA <i>Bachelor of Science in Astrophysics</i> <i>Graduation with Honor</i>	June 2015

Relevant Skills

Proficient in C, C++, Python, and \LaTeX
Proficient in symbolic computation with SymPy and *Mathematica*
Moderate experience with MPI, OpenMP, TBB, and ISPC parallelization tools
Some experience with high-performance computing (Chicago Midway cluster)
Moderate experience with git version control
Extensive scientific visualization

Open Source Software and Contributions

benzaiten: Automatic differentiation of abstract functions in C++20
cloud-kepler: Pipeline for processing *Kepler* lightcurves and search for signals of planets/flares

Awards and Honors

Lawrence Livermore National Laboratory HEDP internship <i>Summer internship in high energy-density physics</i>	2019
National Science Foundation Graduate Research Fellowship <i>National fellowship supporting graduate student research and tuition</i>	2015
Harvard University Pierce Fellowship <i>Merit award to top admitted students in Harvard's astronomy graduate program</i>	2015
Housner Student Discovery Fund <i>Travel award for undergraduates; used to attend AAS meeting</i>	2014
Carolyn Ash SURF Fellowship <i>Summer research funding</i>	2013
Robert and Delpha Noland Fellowship <i>Summer research funding</i>	2012

First-author Publications

1. **Price, E. M.** and Rogers, L. A. (2020). Tidally-Distorted, Iron-Enhanced Exoplanets Closely Orbiting Their Stars. *ApJ*, 894, 1. <https://iopscience.iop.org/article/10.3847/1538-4357/ab7c67>
2. **Price, E. M.**, Cleeves, L. I., and Öberg, K. I. (2020). Chemistry Along Accretion Streams in a Viscously Evolving Protoplanetary Disk. *ApJ*, 890, 154. <https://iopscience.iop.org/article/10.3847/1538-4357/ab5fd4>
3. **Price, E. M.**, Rogers, L. A., Johnson, J. A., and Dawson, R. I. (2015). How Low Can You Go? The Photoeccentric Effect for Planets of Various Sizes. *ApJ*, 799, 17. <http://iopscience.iop.org/0004-637X/799/1/17>
4. **Price, E. M.** and Rogers, L. A. (2014). Transit Light Curves with Finite Integration Time: Fisher Information Analysis. *ApJ*, 794, 92. <http://iopscience.iop.org/0004-637X/794/1/92>

Selected Presentations

1. **Price, E. M.**, Cleeves, L. I., Öberg, K. I. (2019). *Applications of PETSc to Open Questions in Planet Formation Theory*. Invited talk at the *PETSc User Meeting 2019*.
2. **Price, E. M.**, Cleeves, L. I., Öberg, K. I. (2018). Coupling Dynamics and Chemistry in Viscously-Evolving, Accreting Protoplanetary Disks. Poster presentation at the *Astrochemistry: Past, Present, and Future* conference hosted by the California Institute of Technology.
3. **Price, E. M.**, Cleeves, L. I., and Öberg, K. I. (2017). Coupling Dynamics and Chemistry in Viscously-Evolving, Accreting Protoplanetary Disks. Poster presentation at the *GRC Origins of Solar Systems* conference hosted by Mount Holyoke College.
4. **Price, E. M.**, Cleeves, L. I., and Öberg, K. I. (2017). Coupling Dynamics and Chemistry in Accreting Protoplanetary Disks. Poster presentation at the *332nd International Astronomical Union Symposium* in Puerto Varas, Chile.
5. **Price, E. M.**, Rogers, L. A., Johnson, J. A., Shporer, A., Morton, T., Crepp, J. R., Swift, J., Muirhead, P. S. (2015). Characterizing the “Hot” Kepler Objects of Interest. Poster presentation at the *225th American Astronomical Society Meeting* in Seattle, WA.
6. **Price, E. M.**, Rogers, L. A., Johnson, J. A., and Dawson, R. I. (2014). How Low Can You Go? The Photoeccentric Effect for Planets of Various Sizes. Poster presentation at the *223rd American Astronomical Society Meeting* in Washington, DC.
7. **Price, E. M.**, Rogers, L. A., Shporer, A., Morton, T., Crepp, J. R., Swift, J., Muirhead, P. S., Johnson, J. A. (2013). Characterizing the “Hot” Kepler Objects of Interest. Poster presentation at the *Kepler Science Conference II* at Ames Research Center.

Teaching and Leadership

Teaching Fellow, ASTRON218: Radio Astronomy	Harvard, Fall 2017
Teaching Fellow, ASTRON16: Stellar and Planetary Astronomy	Harvard, Spring 2017
Head Teaching Assistant, <i>CS2: Introduction to Programming Methods</i>	Caltech, Winter 2015
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Teaching Assistant, <i>CS2: Introduction to Programming Methods</i>	Caltech, Winter 2013