Eliza Kempton (*formerly Miller-Ricci*)
Department of Astronomy – University of Maryland
College Park, MD 20742
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Education

Harvard University	Ph.D. Astronomy	2009
Middlebury College	B.A. Physics (*summa cum laude*)	2003

Appointments

Assistant Professor, Astronomy Department, University of Maryland, College Park	2018 - present
Associate Professor, Physics Department, Grinnell College (on leave)	2018 - present
Assistant Professor, Physics Department, Grinnell College	2012 - 2018
Sagan Postdoctoral Fellow - UCSC, Department of Astronomy & Astrophysics	2009 - 2012

Honors and Awards:

NSF CAREER Award	2017-2022
Cottrell Scholar (Research Corporation)	2016-2019
Kavli Frontiers Fellow (National Academy of Sciences)	2010-2012
Sagan Postdoctoral Fellowship	2009-2012

Research Interests:

Theoretical models of planetary atmospheres
Detection and characterization of extrasolar planets
Transiting extrasolar planets

Selected Publications:

1) **E. M.-R. Kempton**, J. L. Bean, V. Parmentier, "An Observational Diagnostic for Distinguishing Between Clouds and Haze in Hot Exoplanet Atmospheres", *ApJL*, 845 L20, 2017
2) J. L. Bean, D. S. Abbot, **E. M.-R. Kempton**, "A Statistical Comparative Planetology Approach to the Hunt for Habitable Exoplanets and Life Beyond the Solar System", *ApJL*, 841, L24, 2017
3) **E. M.-R. Kempton**, R. Lupu, A. Owusu-Asare, P. Slough, B. Cale, "Exo-Transmit: An Open-Source Code for Calculating Transmission Spectra for Exoplanet Atmospheres of Varied Composition", *PASP*, 129, 044402, 2017
4) **E. M.-R. Kempton,** R. Perna, K. Heng, "High Resolution Transmission Spectroscopy as a Diagnostic for Jovian Exoplanet Atmospheres: Constraints from Theoretical Models," *ApJ*, 2014, 795, 24
5) C. V. Morley, J. J. Fortney, **E. M.-R. Kempton**, M. S. Marley, C. Visscher, Zahnle, K., "Quantitatively Assessing the Role of Clouds in the Transmission Spectrum of GJ 1214b," *ApJ*, 2013, 775, 33
6) **E. Miller-Ricci Kempton**, E. Rauscher, "Constraining High Speed Winds in Exoplanet Atmospheres Through Observations of Anomalous Doppler Shifts During Transit," *ApJ,* 751, 117, 2012
7) **E. Miller-Ricci Kempton**, K. Zahnle, J. J. Fortney, "The Atmospheric Chemistry of GJ 1214b: Photochemistry and Clouds," *ApJ,* 745, 3, 2012
8) J. L. Bean, **E. Miller-Ricci Kempton**, D. Homeier, "A Ground-Based Transmission Spectrum of the Super-Earth Planet GJ 1214b," *Nature*, 468, 669, 2010
9) **E. Miller-Ricci**, J. J. Fortney, "The Nature of the Atmosphere of the Transiting Super-Earth GJ 1214b," *ApJL*, 716, L74, 2010
10) **E. Miller-Ricci**, D. Sasselov, S. Seager, "The Atmospheric Signatures of Super Earths: How to Distinguish Between Hydrogen-Rich and Hydrogen-Poor Atmospheres," *ApJ*, 690, 1056, 2009