Name: Alexadria Gonzales

Email: AGonzale8470@scrippscollege.edu

Institution: Scripps College

Title: KOI-1120: A spotted giant and a sun-like eclipsing stellar pair

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Abstract: Jonathan Swift (Caltech), Avi Shporer (Caltech/JPL), Roberto Sanchis-Ojeda (MIT), John Johnson

(Harvard)

While Kepler is primarily an exoplanet mission, the exquisite photometric precision afforded by the Kepler space telescope has also opened scientific frontiers in stellar astrophysics. As part of the cool Kepler eclipsing binary program, we present a case study of a particularly interesting KOI false positive—KOI-1120. This K giant/G dwarf eclipsing binary pair reveals a deep secondary eclipse of 16% and a 7% primary eclipse depth with multiple star spot crossing events over the Kepler time baseline. Kepler data supplemented with Keck/HIRES radial velocity measurements, Keck/NIRC2 adaptive optics imaging, and Palomar/TripleSpec near infrared spectra enable a precise and accurate characterization of the system providing important insights into stellar astrophysics and stellar evolution.