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Institution: Harvard College Observatory  
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Abstract: Characterizing Transiting Planets  
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Asterodensity profiling is a method for constraining various parameters of an transiting exoplanetary system by comparison of the lightcurve derived stellar density and an independently derived stellar density. Multi-body asterodensity profiling (MAP) has been previously demonstrated as a tool for constraining eccentricities in multi-planet transiting systems (Kipping et al. 2011) and recently Dawson & Johnson (2012) have considered the single-body case too, leveraging high-resolution spectra for the independent measure of the stellar density. In this talk, I will discuss single-body asterodensity profiling (SAP) for targets with asteroseismologically determined stellar densities, which is generally superior in both precision and accuracy to those from spectroscopy. We have selected several targets with the largest ratio between the stellar density reported from asteroseismology in Huber et al. (2013) and the lightcurve value reported in the KOI MAST database. We have independently detrended and fitted the transit light curves to calculate a revised value of this crucial ratio ( $\Psi$ ), with various priors employed. I will present the current results our work and discuss implications for the eccentricity of these studied systems. I will finish by exploring the exciting potential of this technique in the TESS-era, where the fact our technique requires bright-star photometry only opens the door to constraints for hundreds/thousands of objects.