
EAPS Planetary Lunch Colloquium Series (PICS)

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12:30pm
54-517

The Kepler Smear Campaign

Kepler was designed to look at hundreds of thousands of moderately faint stars in order to get a large sample for a census of planet hosts - and consequently the nearest and brightest stars are often saturated and difficult to study. We present the results of a survey of the hundred brightest stars in Kepler missed by conventional apertures, but for which we can reconstruct light curves from collateral 'smear' data. We detect no planets, but using high-resolution spectroscopy from the Tillinghast Reflector Échelle Spectrograph (TRES) together with asteroseismic modelling, we obtain the stellar densities and derive masses, radii and ages of 34 new red giant and red clump stars as benchmarks, together with new detections of classical pulsations for hot bright main sequence stars. This completes the Kepler sample down to the 9th magnitude, and I will discuss the prospects of doing the same for K2.



For more information, contact Jason Soderblom (jms4@mit.edu)