

EXPRES and Recent Results from the 100 Earths Survey

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What do planetary systems look like around G and K dwarfs at months to years long orbits? Transit survey statistics tell us that there are plenty of small planets, between the radius of Earth and Neptune but we lack good information for orbits longer than about 40 days. RV surveys have found a handful of these apparently abundant planets, but their small size has limited detections to about the same region. We still know little about planetary system architectures at wider orbits and have yet to detect any architectures like the Solar System. We designed the EXtreme PREcision Spectrometer (EXPRES) and the accompanying high cadence 100 Earths Survey specifically to look for these 'missing' planets. EXPRES was commissioned on the Lowell Discovery Telescope in 2018 and the 100 Earths Survey has been collecting science observations since August 2019. More than one third of our regularly observed systems are showing possible new planetary signals, most in multi-planet systems. I will present our latest results including both instrument performance and planet detections.