

P310a Discovery and Validation of  $\sim 100$  New Planets from *K2*

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The NASA *K2* mission is extending the Kepler transit survey to many fields along the ecliptic plane. *K2* has revealed hundreds of new planets, most of which orbit brighter stars than those studied by the original Kepler mission. The wider sky coverage of *K2* has also enabled the discovery of planets orbiting stars in clusters, offering a rare glimpse of the time domain of planet formation. In particular, many planets from *K2* are good targets for follow-up radial velocity and transmission spectroscopy observations, placing them among the best currently known targets for characterization studies. We present the results of detailed light curve analyses, follow-up imaging and spectroscopy, and statistical validation, resulting in  $\sim 100$  new planets. Of particular interest are planets with bright host stars, ultra-short period planets, multi-planet systems, and temperate sub-Neptunes. We also perform follow-up transit observations with *Spitzer* to refine ephemerides, which ensures the feasibility of future study by *JWST*. These *K2* results provide an appetizer for the newly launched NASA *TESS* mission, which is about to begin a survey of  $\sim 85\%$  of the sky.