

P215c      **K2 Exoplanets and Follow-up with Spitzer and Ground-based Telescopes**

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We report the discovery and characterization of planets using K2, Spitzer, and ground-based telescopes. K2 is continuing the legacy of Kepler by observing a succession of fields in the ecliptic plane, with a particular focus on late-type host stars. We have found large numbers of candidates in the K2 data and subjected them to high resolution imaging and spectroscopy in order to characterize the host stars and their environments. This process helps us to eliminate various false positive scenarios which could mimic the transit signal of a bona fide planet, as well as place tight constraints on physical properties such as size and equilibrium temperature. We statistically validate  $\sim 100$  planets from K2's first five observing campaigns, and use Spitzer to conduct follow-up transit observations of a large number of these. Spitzer's high precision and high observing cadence allow us to constrain the physical and orbital properties of these planets much better than is possible with the K2 data alone. In addition, the Spitzer transit observations occur many orbits after the initial  $\sim 80$  day K2 observations and thus yield a much more accurate determination of orbital period, which is crucial for future atmospheric studies in the JWST era. Due to the small size of their host stars, some of these present opportunities to characterize potentially habitable Earth-like planets.