



Presentation Abstract

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Title **A Ground-Based Observing Program in Support of the Warm Spitzer NEO Project**

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Abstract A Warm Spitzer survey of approximately 700 near-Earth objects (NEOs) has been started to derive albedos and diameters of the numerous small bodies. We present a ground-based NEO observation program designed to complement the Spitzer data. By using a variety of observational techniques, we aim to obtain optical magnitudes, lightcurves and compositional information for many of these objects. We have begun a program to obtain high-quality optical magnitudes of all 700 Spitzer targets, using a variety of telescope facilities with a range of apertures (from 0.36 m to 8 m). For a subset of our targets, we will also obtain lightcurves, which will be used as a proxy for the larger sample. We plan to obtain spectra of 250 objects from the Spitzer NEO sample and broadband spectrophotometric measurements of another 100. These spectroscopic results will allow us to derive compositions for nearly half our sample and act as a ground-truth for the larger, complete sample. Observations are already scheduled on the NASA Infrared Telescope Facility (SpeX as well as MIRS), which will be used to confirm our Spitzer thermal observations and modeling), NOAO SMARTS telescopes, the Las Campanas 1-meter and several smaller telescopes. We will continue to expand the range of facilities used, matching aperture with target brightness. This catalog of objects will serve as a reference sample for a wide variety of future NEO studies.