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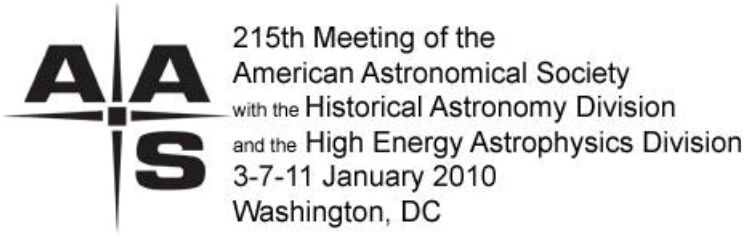

Presentation Abstract

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Title	**The Warm Spitzer NEO Survey: Exploring The History of the Inner Solar System and Near Earth Space**
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Abstract	The majority of Near Earth Objects (NEOs) originated in collisions between bodies in the main asteroid belt and have found their way into near Earth space via complex and little understood dynamical interactions. This transport of material from the main belt into the inner Solar System has shaped the histories of the terrestrial planets. However, despite their scientific importance, key characteristics of the NEO population --- such as the size distribution, mix of albedos and mineralogies, and contributions from so-called dead or dormant comets --- remain largely unexplored; some 99% of all presently known NEOs are essentially uncharacterized. We have an approved 500 hour Warm Spitzer program to derive albedos and diameters for some 700 NEOs. We will measure the size distribution of this population to understand fundamental physical processes that occur among the small bodies of our Solar System. We will measure the fraction of NEOs likely to be dead comets, with implications for the flux of organic material onto the Earth. We will measure the NEO albedo distribution, which indicates the compositional diversity among these small bodies. We will study properties of individual NEOs, including their surface properties and potentially their densities, and detailed properties of a subset of well-characterized objects. Our Warm Spitzer program began execution in July 2009, and will return on average one target per day for the next two years. We will present initial results from our program. This work is based on observations made with the Spitzer Space Telescope, which is operated by JPL/Caltech, under a contract with NASA. Support for this work was provided by NASA through an award issued by JPL/Caltech.