



## The Pan-STARRS search for Near Earth Asteroids: present status and future plans

**Richard Wainscoat** (1), Robert Jedicke (1), Larry Denneau (1), Peter Vereš (1), M. Granvik (1,2)

Email: [rjw@ifa.hawaii.edu](mailto:rjw@ifa.hawaii.edu)

(1) University of Hawaii, Institute for Astronomy, 2680 Woodlawn Drive, Honolulu, HI 96822, USA

(2) University of Helsinki, Finland

### Abstract

The Pan-STARRS 1 telescope (PS1), located on Haleakala, Maui, Hawaii, is a 1.8-meter diameter telescope equipped with a 1.4 Gigapixel camera that delivers a 7 square degree field of view. PS1 is conducting a diverse survey that includes searching for Near Earth Asteroids. PS1 discovered its first NEA in September 2010. During the year since then, the survey strategy has been incrementally refined to increase NEA detection, and the discovery rate for NEAs has systematically improved. On January 30, 2011 (UT), the entire night was devoted to observations optimized for NEA discovery, and PS1 discovered 19 NEAs, the most discovered by a single telescope in a night. The discovery rate and NEA size distribution for PS1 discoveries will be discussed. PS1 delivers excellent astrometry and photometry, and these characteristics will also be described. The survey strategy yields colors for NEAs, and the colors of NEAs measured by PS1 will be compared to MBAs.

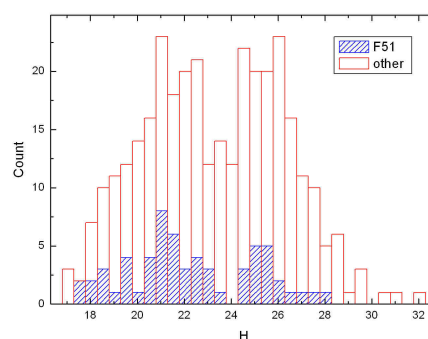


Figure 1: Sizes of NEAs discovered by PS1 compared to NEAs discovered by other telescopes.