

## Finding the largest meteoroids with the Pan-STARRS survey

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The Pan-STARRS survey is tasked with finding Near Earth Asteroids, especially those which might pose a hazard to the Earth. It has found a significant portion of the 20 000+ known NEOs, finds about half of all new comets, and was the first instrument to detect `Oumuamua.

Located on Maui in the United States, PS features twin 1.8 metre telescopes, each acquiring a sequence of four 45 second w-band images, covering  $\sim 1000$  square degrees on each clear night. Because of the excellent sky conditions in Hawai`i, PS can image with a limiting magnitude of  $V \sim 23$ . This means it can be very sensitive to the largest meteoroids near the Earth – those with an absolute magnitude of  $H > 28$ , corresponding to  $\sim 10$  metre objects, although the detection and confirmation follow-up of such objects is not always an easy task.

Here we will present an overview of PS, and discuss the survey strategy and challenges in finding these potential large impactors.