

Discovering Main Belt Asteroids by analyzing Pan-STARRS astronomical data at IASC

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Abstract: We hunt for the Main Belt Asteroids and perform Near Earth Observations by analyzing image sets from 1.8m Pan-STARRS (Panoramic Survey Telescope and Rapid Response System) at Haleakala Observatory, Hawaii. Image sets having 3.2 degree FOV and 1.4 gigapixel size are taken using PS1 system configured with Pan-STARRS.

The International Astronomical Search Collaboration (IASC) is an observational astrophysics research program for high school and college students under NASA grants, which provides these high quality data to students around the world in order to analyze and search for potential moving objects and Near Earth Observations. Students prepare a report and send it to IASC which is further studied by IAU- Minor Planet Center. Participating students are provided these data online and they are able to make original astronomical discoveries and participate in Hands-on astronomy. This service is provided at no cost to the participating students.

We present the step wise procedure and analysis to search for Moving Objects with Astrometrica software from data provided by IASC.