

## **Identification and characterization of asteroids using the WFCAM Transit Survey and the Virtual Observatory.**

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### **Abstract**

Small Solar System bodies are objects that are neither planets nor dwarf planets, nor satellites of a planet or dwarf planet. More than 750,000 small Solar System bodies are known today, most of them asteroids, occupying a variety of orbits ranging from near-Earth to the Kuiper belt. Their study is motivated by their intrinsic importance as remnants of the early stages of the solar system formation process as well as by practical reasons concerning space exploration or the impact frequency with Earth.

We describe here a methodology to identify asteroids serendipitously observed in the WFCAM Transit Survey using Virtual Observatory tools like SkyBoT, Miriade, TOPCAT, STILTS and Aladin. We provide near 15,000 accurate positions and J-band magnitudes for over 1,600 asteroids. We build light curves and plan to use them to determine their fundamental physical parameters, such as the asteroid’s shape, rotational period or the binary nature. (See poster).