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**The Second Pan-STARRS Telescope and Camera and the performance of the full Pan-STARRS System**

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**ABSTRACT**

The new Pan-STARRS2 telescope and 1.5 Gigapixel camera (GPC2) are now functioning and actively discovering NEOs. It has joined the Pan-STARRS1 Telescope in a ongoing systematic survey of the sky for NEOs. The Pan-STARRS2 facility will be described, and the differences with the Pan-STARRS1 facility highlighted. Although the optical design of both PS1 and PS2 is very similar, the telescopes and enclosures are completely different. PS2 requires a moon screen, whereas PS1 screens stray light with the dome shutters. The GPC2 camera has a different generation of CCD that does not have the charge transfer and persistence problems of the GPC1 Camera, and in general its cosmetics are superior. The image quality of PS2 is equivalent to PS1. The Image Processing Pipeline reduces the data of both systems in parallel in real time. The performance of PS2 will be described together with ongoing work to optimize it going forward. By using both PS1 and PS2 in combination, we can cover the available sky more systematically and provide greater self-followup of NEO candidates. Together PS1 and PS2 make up the Pan-STARRS system for the discovery and characterization of the NEO population. The scheduling and characteristics of the Wide Area Survey for NEOs with Pan-STARRS will be presented.

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