PHYSICS AND ASTRONOMY COLLOQUIUM

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ATLAS and the Changing Sky

The Asteroid Transient-Impact Last Alert System - ATLAS - is just coming online, funded by NASA to survey the entire visible sky multiple times each night to 20th magnitude, in search of dangerous asteroids. ATLAS will find transients as well as moving objects, and will provide thousand-point light curves for a billion objects each year, so has broad scientific value beyond the solar system. The thresholds of “multiple sky” and “20th magnitude” are carefully chosen to optimize science return; ATLAS maximizes “transient survey speed per unit cost”, and is arguably better than other transient survey systems by that metric. I will describe the capabilities and status of ATLAS and discuss one non-solar system project planned: measuring dark matter from Type Ia supernova peculiar velocities.

THURSDAY, OCTOBER 1, 2015 | 4:00 PM | HAWKING AUDITORIUM

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