

The ATLAS All-Sky Survey

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Abstract

The Asteroid Terrestrial-impact Last Alert System (ATLAS) is a small project with an ambitious goal: early warning of asteroid impacts on Earth. We aim to provide one day warning for the smallest "town-killer" 30-kiloton asteroids up to three weeks for a 100-megaton impactor. ATLAS will execute a wide-field all-sky survey with four visits per footprint per night down to a sensitivity limit of $V=20$, suitable for detection dangerous asteroids and enabling other exciting time-domain astronomy. ATLAS is currently under construction and expects to be fully operational in late 2015. We provide an overview of the ATLAS system and discuss how ATLAS can participate in the emerging community of time-domain astronomy.