THE UNIVERSITY OF HONG KONG

DEPARTMENT OF PHYSICS
SEMINAR

Extragalactic transient science with high cadence surveys

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Abstract:
Originally designed as exoplanet hunters, Kepler and TESS have also demonstrated their unique advantages in the realm of extragalactic transient studies. With wide field-of-view and sub-hour cadence, they are capable of capturing the most rapid transients and early fast-evolving features indicative of progenitor properties for various transients. In this talk, I will give an overview on the extragalactic transient discoveries from Kepler and TESS, including the early features of type Ia supernovae, shock breakout and cooling of core-collapse supernovae, prompt emission and afterglows of GRB, and exotic events. I'll then introduce ULTRASAT, an upcoming UV high cadence survey, could further advance our understandings of these problems. In the end, I'll discuss the implications to upcoming missions such as ET2.

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Anyone interested is welcome to attend.