

Astro Seminar Series



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Kepler, K2, and TESS Space-based asteroseismology

By awakening us to the amazing abundance of other planetary systems, the Kepler mission has been a landmark in advancing our understanding of the Universe. The basis for these discoveries is accurate photometry, with high duty cycle, of over 100,000 stars. The data corresponding to planetary transit events, though, is far less than 0.1% of the total amount of data obtained.

The remaining >99.9% of the data is an exquisite record of the time-domain behavior of an enormous variety of stars. These photometric time series enable us to probe the interiors of stars by revealing their normal modes of oscillation – a technique known as asteroseismology. In this talk I'll discuss the remarkable strides that asteroseismology has been able to make using the remarkable archive of Kepler photometry, the ongoing efforts of the follow-on K2 mission, and plans for future missions such as TESS.

Tuesday Jan 26, 3:30pm

**Bell Room (103)
Rutherford Physics Building**