

Astro Seminar Series



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The Palomar (non)Transient Factory: Teaching an old dog new tricks

The Palomar Transient Factory (PTF) has been in operation since 2009, yielding new results on extragalactic transients including supernovae, gamma-ray bursts, and tidal disruption events. However, over its 6 years of operation, PTF has also gathered photometry data on over 500 million objects in the Northern Sky, with some fields being observed several thousand times.

I will describe some of the interesting science that has come from study of non-transient, but variable, objects using PTF. This is just a glimpse of the expected yield from the Zwicky Transient Facility (ZTF), to be operational in 2017, with a throughput 20 times that of PTF. Among the "new tricks" we have taught PTF is the capability of operating in dense stellar fields. We have already carried out the best optical variability study of the Galactic Plane and will follow that in 2018 with a much more extensive publicly accessible Galactic Plane variability survey using ZTF.

Tuesday Oct 27, 3:30pm
Bell Room (103)
Rutherford Physics Building