

Astrophysics Seminar

Tuesday, October 13, 2015

Multiwavelength Observations of Disintegrating Transiting Planets & Planetesimals

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Abstract:

Recently there have been a number of low-mass planets and planetesimals announced (or soon to be announced) transiting low-mass stars - intriguingly, these planets are believed to be disintegrating with long cometary tails trailing behind them. The evidence that these bodies are disintegrating are: (i) that they usually display longer transit egresses than ingresses, likely indicative of a trailing cometary tail, and (ii) they they display variable transit depths, likely indicative of light scattering from a variable amount of material in the cometary tail that has disintegrated from the planet. I'll present multiwavelength photometry that allows us to place limits on the particle sizes in the cometary tails trailing these planets, and therefore helps to determine the mechanism causing these planets to disintegrate. I'll finish with an in-depth discussion of a disintegrating system that is currently under embargo.

3:15 pm

Refreshments
CAS Room 500

3:30 pm

Seminar
CAS Room 502

Next Week

- *V. Martinez Pillet & T. Rimmele*
National Solar Observatory
- Why Solar Physics needs a 4m-class solar-telescope? The Daniel K. Inouye Solar Telescope and its capabilities

