



# DEPARTMENT OF PHYSICS AND ASTRONOMY

## COLLOQUIUM **IN-PERSON ONLY EVENT**



The Race to the Bottom: The Search for Planets around Ever Smaller Hosts

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Results from NASA's Kepler and TESS Missions indicate that low-mass stars ( $M < 0.5 M_{\odot}$ ) are swarming with terrestrial planets. The results have led to a renewed interest in low-mass star astrophysics: their formation, evolution, activity, and their prospects for hosting habitable planets and life. I will present recent results from the Low-mass Star Group at Boston University, focusing on stellar abundances, magnetic activity and the occurrence of "compact multiple" exoplanet systems. Lastly, I will discuss a new search for transiting planets around hosts that span the stellar/substellar mass boundary. The project, called the Perkins Infrared Exosatellite Survey, or PINES, is the most ambitious survey of substellar objects to date. I will describe the survey goals and strategy, and I will present our latest results.



**Thursday, February 12, at 2:55 PM**

***IN-PERSON EVENT ROOM 202***

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