



**ASTROPHYSICS
SEMINAR SERIES**

**"Directly Determined Linear Radii, Effective
Temperatures, and Shapes of Stars from Long-Baseline
Optical Interferometry"**

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Monday, November 25, 2013
Refreshments at 3:15pm in CAS 500
Talk begins at 3:30pm in CAS 502

Abstract:

A brief introduction to the concepts of long-baseline optical interferometry (LBI) will be presented, followed by a review of fundamental stellar parameters as directly determined using LBI. Special attention will be paid to the progression of precision over the years of the observables of linear radius and effective temperature, with the current state-of-the-art measures approaching sub-percent levels for hundreds of stars (and being limited primarily by the ancillary data products of distance and bolometric flux, not measured angular size). Discussion will also be presented on the diminishing meaning of these gross parameterizations of stellar atmospheres, as higher-order surface details such as shapes, limb darkening, gravity darkening, and spotting are beginning to be imaged with LBI.