BOSTON UNIVERSITY

ASTROPHYSICS SEMINAR SERIES

"Status of the Apache Point Observatory Galactic Evolution Experiment (APOGEE) and Its Successor, APOGEE-2"

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Refreshments at 3:15pm in CAS 500
Talk begins at 3:30pm in CAS 502

Abstract:
The Apache Point Observatory Galactic Evolution Experiment (APOGEE), one of the programs in Sloan Digital Sky Survey III (SDSS-III/APOGEE) is now in its third year of operations. APOGEE is producing a large catalog of high resolution ($R\sim22,500$), high quality ($S/N > 100$), infrared (H-band: 1.51-1.68 µm) spectra for stars throughout all stellar populations of the Milky Way, and including time series information via repeat visits to stars. Having already collected >350,000 spectra of >75,000 unique stars, APOGEE is already making a variety of impactful discoveries, including the first detection of a high-velocity stellar population in the Milky Way's central bar, measurements of the Galactic rotation, chemical maps of the disk and bulge, and the discovery of rare stellar species. I will summarize the status of the APOGEE project and its successor, the dual-hemisphere APOGEE-2 project, including an overview of science results generated by this large, detailed, spectroscopic survey of Milky Way stars.