



**BOSTON
UNIVERSITY**

**ASTROPHYSICS
SEMINAR SERIES**

“Massive Star Formation in the Era of Herschel and WISE”

Loren Anderson

WVU

Monday, December 10, 2012

Refreshments at 3:30pm in CAS 500

Talk begins at 4:00pm in CAS 502

Abstract:

In the past 15 years numerous mid- and far-infrared telescopes have come online. The dust we observe related to the star formation process emits strongly in the infrared and surveys made using these telescopes have revolutionized our understanding of massive star formation. In this talk I will review Galactic star formation results from two recent infrared telescopes: the Wide-field Infrared Survey Explorer (WISE) and the Herschel Space Observatory. WISE has the sensitivity to identify all Galactic HII regions. We have used the WISE data to create a catalog of ~2000 HII regions and ~2000 HII region candidates and are in the process of observing these candidates in radio recombination line emission with the Green Bank Telescope. This effort has yielded the detection of the most distant Galactic HII regions, which lie in the Outer Scutum-Centaurus arm and are over 17 kpc from the Galactic center. Operating at longer wavelengths, Herschel is uncovering the earliest stages of star formation. I will review recent results from the Herschel HOBYS program, which is surveying nearby massive star formation regions, and Hi-Gal, which is observing the entire Galactic plane.