

PHYSICS DEPARTMENT COLLOQUIUM

*“Low Ionization Nuclear Emission Line Regions:
The "Missing Link" in the AGN Population”*

BY

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With the recent discovery that virtually all local galaxies harbor massive nuclear black holes, there is now convincing evidence that active galactic nuclei (AGN) and normal galaxies in our local Universe are fundamentally connected. However, the nature of this connection and the detailed evolutionary history connecting these objects is unknown. Low ionization Nuclear Emission Line Regions (LINERs), defined by their narrow optical emission lines of low ionization uncharacteristic of photoionization by normal stars, may constitute a vital piece of this puzzle, possibly representing the "missing link" between the powerful quintessential AGN in the Universe and galaxies such as our own. Despite several decades of intense research, there are still open questions, including: what fraction of LINERs are truly AGN, what are their accretion properties, and how do these quantities relate to the properties of the host galaxy? While many previous multi-wavelength studies of LINER galaxies have been carried out on optically selected samples, most LINERs are infrared-bright and are generally excluded from such samples. In this talk, I will summarize our recent results from our ongoing multiwavelength investigation of infrared-bright LINERs.

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4:00 PM IN 102 JFB
REFRESHMENTS AT 3:30 PM IN 219 JFB