PHYSICS AND ASTRONOMY

SEMINAR

Dr. Joanna Woo

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"Galaxy Quenching, Structural Transformation and the Environment"

Abstract

It is well established that environment plays a role in the quenching of star formation in galaxies. In addition, it is becoming increasingly clear that the stars in quenched galaxies in dense environments have prominent bulges, or equivalently, are centrally concentrated/compact, having high central stellar mass surface densities. I will present new work that explores the relationship between these two effects, namely environment quenching and the build-up of galaxy inner densities. In particular, I will present strong evidence for a separate quenching path for satellites relative to the field. This study has raised new questions as to how or if environmental processes cause structural change. I will present new MUSE IFU observations of a group of galaxies showing evidence for a rise in central density caused by the group environment in some cases, and in others, evidence that the central densities were established long before quenching.

Monday, October 23, 2017
2:00 p.m.
Business & Economics Building
Room 363