PHYSICS AND ASTRONOMY SEMINAR

Professor Yingjie Peng,

"Exploring star formation and quenching via multiple-wavelength synergy surveys"

Abstract

"Identifying and understanding the physical mechanisms responsible for star formation and quenching are key challenges in modern astronomy. Via multiple-wavelength synergy surveys, we explore in the local Universe the interrelationships among key integrated galaxy properties, including stellar mass, star formation level, molecular gas H2, atomic gas H I, morphology, structure and kinematic of the stars, environment and AGN. We aim to identify (1) the most fundamental scaling relations among these key galaxy properties and their interrelationships; (2) the key processes in star formation and quenching. In the first half of my talk, I will present key observations that lead to a self-consistent picture of how mass-quenching operates in massive galaxies, and the implied physical mechanism. In the second half, I will introduce a universal scaling relation in star formation and quenching, and show in combination with the gas regulator model, it provides a new powerful tool to study galaxy formation and evolution."

Monday, November 30, 2020

4:00 p.m.

Zoom link:
https://uvic.zoom.us/j/83959078144?pwd=RHJBUlYyZU1yRm5Wc2l0WEIyMHFTdz09