



University  
of Victoria

# PHYSICS AND ASTRONOMY SEMINAR (In Person)

**Prof. Yu-Yen Chang**  
National Chung Hsing University (NCHU)

“Unveiling Galaxy Interactions and AGNs by  
Machine Learning”

## Abstract

Modern astrophysicists use multi-wavelength observations to investigate galaxy evolution in our universe. With large surveys, we have investigated stellar masses, star formation rates, dust properties, AGN contributions, as well as morphology and shapes of galaxies to understand galaxy formation and evolution over cosmic time. Recently, the increasing amount of astronomical data has led to a need for machine-learning methods. In this talk, I will show our recent results on classifying AGN host galaxies with HSC survey, as well as galaxy merger stages with MaNGA data by machine learning. The goal is to unveil physical processes that drive the star formation and AGN activities during galaxy interaction, and apply our results to future all-sky surveys.

Wednesday, April 12, 2023  
10:30 a.m. PST in ELL 160