

THE UNIVERSITY OF HONG KONG

DEPARTMENT OF PHYSICS

SEMINAR

Star Formation Regulation and Quenching as Probed by Radio and IFU Data

Prof. Tony WONG

University of Illinois at Urbana-Champaign

Abstract:

Recent surveys of nearby galaxies using optical integral field spectroscopy (IFS), in conjunction with more sensitive millimeter-wave facilities for conducting CO surveys, offer new opportunities to study the regulation and quenching of star formation. We describe the Extragalactic Database for Galaxy Evolution (EDGE), an ongoing effort to combine spatially resolved CO data from CARMA and ALMA-ACA with the CALIFA IFS survey, and briefly review recent results. We focus on the well-known scaling relations between molecular gas, stellar surface density, and star formation rate and how they respond to predicted variations in the CO to H₂ conversion factor. The relations found in EDGE-CALIFA are also compared with those derived for the ALMaQUEST galaxy sample in a consistent way.

Biography:

Tony Wong is a Professor of Astronomy at the University of Illinois at Urbana-Champaign, where he is Chair of the Astronomy Department from 2023-2026. He received his PhD at the University of California, Berkeley in 2000 and was awarded postdoctoral fellowships at CSIRO and UNSW in Australia before joining UIUC in 2006. His observational research on star formation in nearby galaxies is primarily conducted with millimeter interferometers and optical IFU data.

Friday, May 8, 2026, 2:15pm

Room 522, 5/F, Chong Yuet Ming Physics Building, The University of Hong Kong

Department of Physics, Chong Yuet Ming Physics Building, The University of Hong Kong

Phone: 39172360 Fax: 25599152. Anyone interested is welcome to attend.