

第89回(2024年度第05回) 極限宇宙研究拠点セミナー (the 5th Core-U Seminar in 2024)

日時 : 2024年07月04日(木)13:10 -14:20 Date/Time: 5th/Jul. (Thu.)/2024 13:10-14:20

形式 : 理学部E203 & Zoom Format: Faculty of Science, E203+online (zoom)

講師 (Speaker) : Andreas Faisst (California Institute of Technology (Caltech/IPAC))

題目(Title)

Unveiling the Mysteries of the Early Universe with a Synergy of
ALMA and JWST

概要(Abstract)

For obtaining a complete picture of galaxies, multi-wavelength observations are crucial to observe their stars, gas, dust, and chemical composition. With Hubble, JWST, and ALMA operating at the same time, we find ourselves in an era where we can jointly observe the UV, optical and infrared light. In my talk, I will present recent results obtained by the synergy of these observatories on the properties of starburst and main-sequence galaxies, active galactic nuclei (AGN; supermassive black holes), and the most dusty galaxies during the cosmic dawn. As part of this, I will introduce the contribution of three new programs with JWST (ALPINE NIRSpec/IFU program and MIRI/MRS polycyclic aromatic hydrocarbon (PAH) survey) and ALMA (CHAMPS 1.2mm survey) with which we will study the chemical compositions of $z=4-6$ galaxies, search for the most dust-obscured sources during the Epoch of Reionization, and measure for the first time spatially resolved PAH dust emission in $z=1$ galaxies. I conclude by highlighting the important future contributions to these topics by the next generation of infrared space telescopes, including SPHEREx and PRIMA.

Zoom link :

<https://us06web.zoom.us/j/6856856345?pwd=yy1PoUaJFzvDp0elfF9aH1JlJUElSK.1&omn=87110760851>

Meeting ID: 6856856345

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