

# Probing the Genesis of Supermassive Black Holes: Emerging Perspectives from JWST and Expectation toward New Wide-Field Survey Observations

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## Quasar-Galaxy Co-Evolution from Wide-Field Surveys

*Thursday 21 November 2024 15:30 (30 minutes)*

In this talk I will give an overview of some of the exciting research in quasar-galaxy co-evolution that will be enabled by future wide-field imaging and spectroscopic surveys including the Vera C. Rubin Observatory Legacy Survey of Space Time (LSST), the Euclid mission as well as wide-field spectroscopic surveys with new facilities such as 4MOST and VLT-MOONS. The focus will be on understanding populations of obscured and reddened quasars as well as disentangling quasar and host galaxy emission using these datasets. I will showcase some pilot studies utilising imaging from HyperSuprimeCam and VISTA as well as spectroscopic data from SDSS and VLT-XShooter that demonstrate the promise of these future datasets. I will reflect on how ground-based surveys can provide a complementary view to JWST on the co-evolution of galaxies and their supermassive black holes across cosmic time.

**Presenter:** BANERJI, Manda (University of Southampton)