

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

Contribution ID: 43

Type: **Oral (online)**

The Extreme Local Environments of High-z Quasars

Thursday 21 November 2024 09:50 (20 minutes)

The environments of high-redshift quasars are a key probe of the formation and growth of supermassive black holes in the early Universe. With JWST, we can study their local kpc-scale environments in great detail. Here I will present our latest work using the NIRSpec IFU to study high-z quasars and their host galaxies. In the GANIFS program, we have discovered a large number of interacting companion galaxies around our sample of quasars, undergoing significant mergers with the quasar hosts. We have also discovered a quasar undergoing a trainwreck merger with multiple galaxies and a tidal stream as part of the PEARLS program. I will show these latest results, and discuss how we can use these new observations to help understand the growth of the first black holes.

Presenter: MARSHALL, Madeline (Los Alamos National Laboratory)