

## An investigation of galaxies at extreme redshifts with deep NIRCам and NIRSspec observations

*Tuesday 4 June 2024 11:25 (20 minutes)*

JWST is transforming our understanding of the high-redshift universe and of the epoch of cosmic dawn. In this talk, I will focus on the results from the GLASS-JWST survey and from its follow-up spectroscopic Cycle2 campaign. The first set of GLASS-JWST NIRCам observations led to the discovery of two bright photometric candidates at  $z \sim 10.5$  and  $z \sim 12.2$  providing the first evidence of a puzzling high number density of bright galaxies 300-500 Myr after the Big Bang. A subsequent analysis of GLASS and other programs targeting the foreground cluster A2744 led to the discovery of 7 bright objects at  $z > 9$  hinting at the presence of an overdensity in the field. I will discuss the implications of these findings for our understanding of early galaxy evolution, and, in particular, I will present the results from the ongoing deep NIRSspec spectroscopic follow-up which confirms a high number density of  $z > 10$  sources in the GLASS/A2744 fields. Finally, I will discuss constraints obtained combining NIRCам and NIRSspec on the ionizing, AGN and clustering properties of galaxies at the earliest epochs probed so far.

### sessioni congresso

Galassie e Cosmologia

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