

**X38a First Spectroscopic Confirmation of the  $z > 10$  Little Red Dots**

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“*Little Red Dots*” (LRDs) are new class of abundant high-redshift population, characterized by their V-shaped rest-UV-to-optical SEDs with a valley at the Balmer limit and compact morphologies. Recent studies suggested that LRDs may represent a transitional phase from seed black holes (BHs) into non-LRD supermassive BHs, providing the long-awaited observational laboratory to study seed BHs. In this context, the next essential step is to push the search for LRDs to even higher redshifts ( $z \gtrsim 10$ ) to constrain the BH seeding scenario. We previously developed a novel joint JWST/NIRCam+MIRI color selection method and identified the first  $z_{\text{photo}} \sim 10$  LRD candidate, CW-LRD-z10. We observed CW-LRD-z10 with JWST/NIRSpec (GO7076, PI: H. Akins) and confirmed its spectroscopic redshift as  $z_{\text{spec}} = 10.36$ , representing the most distant spectroscopically confirmed LRD ever found. The number density evolution of LRDs well follow the previously proposed log-normal hypothesis even at  $z \sim 10$ . Furthermore, the fraction of LRDs within the overall galaxy population increases toward higher redshift, highlighting LRD’s importance in the early Universe. In this talk, we will report the analysis results of spectroscopic data and discuss prospects for future exploration of  $z \gtrsim 10$  LRDs.