

Title: Lyman Alpha at Cosmic Dawn: From NOAO to JWST and WFIRST

Abstract: Lyman-alpha galaxies have great potential for tracing the central phase of reionization, because Lyman alpha is resonantly scattered when the IGM is neutral. We have been searching for Lyman-alpha galaxies in the epoch of reionization ($z=7$ and $z=7.7$) using narrowband imaging from Kitt Peak and Cerro Tololo. The infrared spectroscopic capabilities of JWST will play a key role in understanding the physical properties of these objects better, and compare them to their counterparts at lower redshifts. Further into the future, WFIRST will have both the sensitivity and the survey efficiency to find samples of tens of thousands of Lyman alpha emitters over a continuous redshift range from 7 to 10 and beyond. These samples will afford sensitive tests of the spatial inhomogeneity and redshift evolution of the neutral fraction.