

Z119a IGM Tomography in the Subaru PFS SSP Galaxy Evolution Survey

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The Subaru PFS SSP Galaxy Evolution Survey will target a sample of 18k star-forming LBGs at $2.5 < z < 3.5$ over its 12 square degrees, which will act as background sources probing the foreground IGM Lyman-alpha forest absorption at $2.2 < z < 2.7$. I will introduce the idea of IGM tomography, which is combines multiple close-separated sightlines into a 3D absorption field. At the same time, a sample of foreground LBGs will be observed within the same volume as the IGM map to enable cross-correlation with the absorption. I will introduce some results from the pilot CLAMATO survey on Keck Telescope that point the way toward some of the analysis we will carry out with the PFS IGM tomography data, including reconstructing the 3D cosmic web, 3D cross-correlation measurements with galaxies, and studying AGN feedback in galaxy protoclusters.