

Small-scale 3D Lyman- α forest power spectrum

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Small-scale correlations measured in the Lyman- α (Ly α) forest encode information about the intergalactic medium and the primordial matter power spectrum. In my talk, I will introduce a simple and fast method for measuring the 3D Lyman-alpha forest power spectrum at small scales. This measurement approach builds upon the well-established Fast Fourier Transform method used for P1D. I will present results of the method's evaluation on cosmological simulations and a proof-of-principle measurement using real data obtained from SDSS QSO spectra. The goal is to apply this measurement to the DESI Y1 data sample, and as such, I will discuss some prospects related to this.

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Classification de Session: Review and contribution talks