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Cosmology with the Lyman-alpha Forest

Monday 7 August 2017 17:00 (15 minutes)

The Lyman-alpha forest provides a powerful probe of cosmic structure at z = 2-4, with physics that is relatively straightforward. I will discuss current constraints on dark energy from baryon acoustic oscillation measurements in the 3-d Lya forest and on neutrino masses from the 1-d Lya forest power spectrum, with measurements coming from the Baryon Oscillation Spectrosopic Survey (BOSS). I will discuss prospects and challenges ahead, with emphasis on accurate modeling and anticipated measurements from DESI.

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