

Abstract for an Invited Paper
for the APR06 Meeting of
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Dark Energy and Cosmic Sound¹

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I present galaxy clustering results from the Sloan Digital Sky Survey that reveal the signature of acoustic oscillations of the photon-baryon fluid in the first million years of the Universe. The scale of this feature can be computed and hence the detection in the galaxy clustering serves as a standard ruler, giving a geometric distance to a redshift of 0.35. I will discuss the implications of this measurement for the composition of the universe, including dark energy and spatial curvature. I will close with a discussion of the prospects for future redshift surveys to use the acoustic peak to map the expansion history of the universe.

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