

# Phenomenology 2014 Symposium



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## How well can LSST measure neutrino masses?

*Monday, 5 May 2014 15:30 (15 minutes)*

We show that baryonic effects can modify the matter power spectrum on small scales. These effects cause a damping in the matter power spectrum on intermediate scales due to thermal pressure, and a boost on very small scales due to adiabatic contraction of the halo. We compute the weak lensing shear power spectrum in the presence of baryonic feedback obtained from the OWLS simulation suite. We show that future experiments such as the LSST will have to take these feedback effects into account in order to obtain accurate neutrino mass measurements.

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