



Bhuvnesh Jain
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Cosmology on small scales

Friday, 10 August 2018, 11:30
Room A304

I will show cosmology results from the combination of galaxy and cosmic microwave background (CMB) surveys. The question of how well we can model nonlinear effects and galaxy bias on small, quasilinear scales is critical, and I will discuss it in the context of the Dark Energy Survey. On smaller scales, I will show new results on the halos of galaxy clusters. The detection of the dynamical boundary that separates the cluster from the ambient large-scale structure opens up interesting applications of cluster and fundamental physics. Finally, I will describe how CMB surveys can probe even smaller scales and map the Oort cloud regions of nearby stars.