

CU Physics Department Colloquium

Monday, February 7, 2011 4:10 PM 428 Pupin Hall



The handwaver's guide to dark matter halos

Dark matter halos are the endpoints of cosmological structure formation. They play a crucial role in many areas of astrophysics and cosmology, and are host to most of the 'interesting' objects that we see around us, like galaxies and quasars. Our understanding of halos is based almost entirely on numerical experiments in N-body simulations, with relatively poor theoretical understanding of what determines halo properties. In my talk, I will try to give a simple way to understand many properties of halos, including their internal structure and their abundance. I will show how this approach opens new avenues for exploring our cosmology, with a focus on physics beyond the standard (cosmological) model.

Neal Dalal, University of Toronto

Hosted by Brian Cole

