



PHYSICS AND ASTRONOMY SEMINAR

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“SURFS: Synthetic UniveRses for Surveys”

Abstract

I will present an overview of Synthetic UniveRses For Surveys (SURFS), the next generation of mock observations, following in the footsteps of Millennium and Bolshoi simulations. The SURFS simulation set consists of N-body/Hydro simulations in the Planck concordance LCDM cosmology, sampling scales & halo masses down to 1 kpc and 100 million solar masses in 210 Mpc/h cosmological volumes. These simulation parameters are optimised to understand the galaxy formation physics governing satellite galaxies and chosen so as to produce synthetic analogues to upcoming surveys like WAVES and WALLABY. We use state-of-the-art Halo Finders, Trackers and Semi-Analytic Models (SAM) of galaxy formation to follow not just the evolution of central galaxies/haloes but the active lives of satellites/subhaloes spanning group to low cluster mass scales. I will present preliminary results on the evolution on the cosmic growth and gas accretion history of haloes and how the cosmic web ties into it.

Thursday May 25, 2017

11:00 a.m.

Bob Wright Centre

Room A104