



PHYSICS AND ASTRONOMY COLLOQUIUM

Dr. Tom Quinn

University of Washington

“Forming Spiral Galaxies in a Cold Dark Matter Universe”

Abstract

The standard Cold Dark Matter (CDM) model for structure formation makes predictions over a wide range of scales. One of the most challenging of these predictions is the structure of spiral galaxies like the Milky Way and smaller. First the theory of these structures requires following dynamical interactions over long periods of time which in turn requires large simulations. Second there are a couple of straight forward predictions of CDM that appear to be contradicted by observations: the cores of dwarf galaxies are less dense than predicted, and there are many fewer small satellite galaxies of the Milky Way than predicted. I will review recent simulation results that address these issues.

Wednesday, October 19, 2011

3:30 p.m.

Bob Wright Centre

Room A104