NWS06-2006-000112

Abstract for an Invited Paper for the NWS06 Meeting of the American Physical Society

Cosmological Simulations of Galaxy Formation¹ FABIO GOVERNATO, University of Washington

How did the Milky Way form? Was its disk assembled in a unique event or over several billion of years? Is the Milky Way surrounded by a swarm of invisible galactic satellites mainly composed of dark matter? Why the oldest stars reside and the center of the most massive galaxies? The advent of massively parallel supercomputers and large surveys by the Hubble Space Telescope and the other Great Observatories have recently allowed major breakthroughs in our understanding of how galaxies form and provide some first, tantalizing answers to these outstanding questions. I will review some of the most recent results in this exciting field.

¹We acknowledge support from the Spitzer Space Telescope Theoretical Research Program.