



PHYSICS COLLOQUIUM

Rapture of the Deep Sky



Professor Melville P. Ulmer

Department of Physics & Astronomy
Northwestern University

Host: Barger

Abstract: Astronomers have become “drunk” like deep sea divers with observations of the deep (faint object) sky. This has led to a host of telescopes that enable us to see fainter and fainter than ever before. The majority of astronomers have focused on finding the most distant objects, but exciting science can be done by going fainter besides pushing to the edges of the Universe. I will show how I have taken advantage of the ability to detect faint sky objects to study clusters of galaxies. These are exceedingly interesting objects that allow us to engage some of the key issues of physics today, such as Dark Energy and Cold Dark Matter (CDM). Clusters are also natural places to learn about the origin and evolution of both galaxies and the large scale structure of the Universe. I will describe how clusters can be used to address the nature of Dark Energy as well as what clusters already have to say about Dark Matter.

2241 Chamberlin Hall • Friday, September 19, 2008 • 4:00 P.M.
cookies & coffee served at 3:30 p.m.