

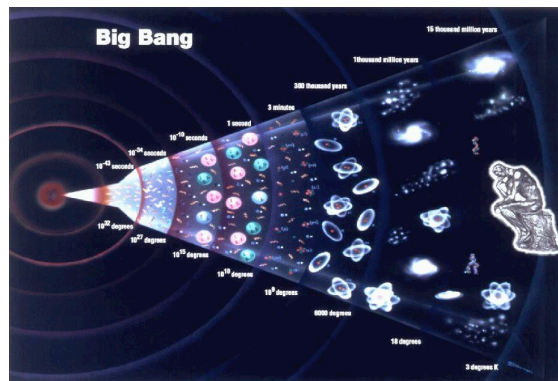


Università degli Studi di Cagliari  
Dipartimento di Fisica



Istituto Nazionale di Fisica Nucleare  
Sezione di Cagliari

High Energy Theory  
Group



## Avviso di Seminario

Mercoledì 12 Novembre 2008  
h. 15:30 – Aula C

David Wiltshire,

University of Canterbury, New Zealand

### Dark energy without dark energy

I will give an overview of a recently proposed "radically conservative" solution to the problem of dark energy in cosmology, using only general relativity but taking account of the inhomogeneous structure of the universe, and the position of observers within that structure. The proposal yields a model universe which appears to be quantitatively viable, in terms of its fit to supernovae luminosity distances, the angular scale of the sound horizon in the cosmic microwave background (CMB) anisotropy spectrum, and the baryon acoustic oscillation scale. The overview examines both the foundational issues concerning the definition of gravitational energy in a dynamically expanding space, the equivalence principle, the quantitative predictions of the new model and its best-fit cosmological parameters, and the prospects for new observational tests in cosmology.