



Lecture Series

Modern Cosmology

by

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Talk 1 Dark Energy and the Homogeneous Universe

Date and Time: 5 July 2007 (Thursday), 3:30 – 5:00 p.m.

Venue: Lecture Theatre L3, Science Centre, CUHK

Abstract: *We introduce the basic concepts of a homogeneous, isotropic and expanding universe, and discuss the surprising recent finding that the present universe appears to be accelerating, suggesting the existence of a mysterious component known as dark energy, the simplest example of which is Einstein's cosmological constant.*

Date & venue
changed

Talk 2 Dark Matter and the Large Scale Structure of the Universe

Date and Time: 11 July 2007 (Wednesday), 3:30 – 5:00 p.m.

Venue: Lecture Theatre L3, Science Centre, CUHK

Abstract: *We introduce the prevalent structure formation paradigm: gravitational instability, where dark matter plays a dominant role. The many manifestations of the cosmic large scale structure are discussed: the microwave background, the intergalactic medium, galaxies and gravitational lensing.*

Talk 3 Inflation and the Early Universe

Date and Time: 18 July 2007 (Wednesday), 3:30 – 5:00 p.m.

Venue: Lecture Theatre L3, Science Centre, CUHK

Abstract: *We introduce the basic ideas of inflation as a theory of the initial conditions of the universe, and discuss its observational success and conceptual difficulties.*

ALL INTERESTED ARE WELCOME