THE CHINESE UNIVERSITY OF HONG KONG

Department of Physics

COLLOQUIUM

The Dark Universe – Half of the Nobel Prize in Physics 2019

by

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Date: March 27, 2020 (Friday)
Time: 4:00 - 5:00 p.m.
Join Zoom Meeting: https://cuhk.zoom.us/j/456117656

ALL INTERESTED ARE WELCOME
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Abstract

James Peebles' insights that 1) the cosmic background photons play a critical role in the formation of galaxies and their anisotropies are sensitive to cosmological parameters, 2) dark matter particles have small velocity dispersion (cold), and 3) the cosmological constant Λ is comparable to matter energy density today, form the foundation of the standard cosmological model, which is spectacularly successful in accounting for most of the observational data. In this so-called ΛCDM model, the universe is dominated by dark energy and dark matter, both of which remain mysterious and require new physics. I will give an elementary introduction of the ΛCDM model and some of the observational evidences supporting it. I will also discuss some outstanding problems of the model and related researches at CUHK.

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