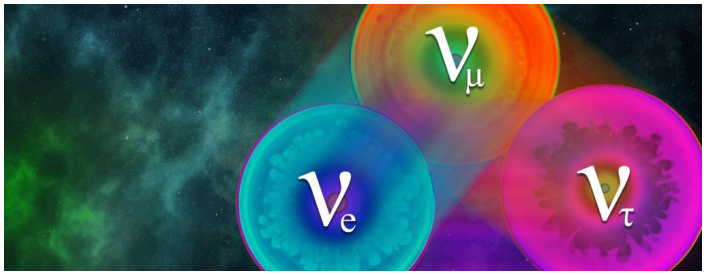

Contribution ID: **17** Type: **not specified**

Probing the Cosmic Expansion: Dark Energy in the Era of Recent BAO Observations

Wednesday, 21 January 2026 11:45 (35 minutes)

The nature of Dark Energy remains one of the most profound mysteries in modern cosmology, acting as the primary driver behind the late-time accelerated expansion of the universe. This talk explores the current landscape of dark energy research in light of the latest Baryon Acoustic Oscillation (BAO) observations from premier surveys such as the Dark Energy Spectroscopic Instrument (DESI). We will examine how these "standard rulers" provide high-precision measurements of the Hubble parameter $H(z)$ and the angular diameter distance $d_A(z)$, allowing us to map the expansion history of the cosmos with unprecedented accuracy.

Author: HASHIM, Mahmoud (Centre for Theoretical Physics, the British University in Egypt)

Presenter: HASHIM, Mahmoud (Centre for Theoretical Physics, the British University in Egypt)