



Contribution ID: 1

Type: **Oral presentation**

Contributory: Can Gravity Take Us Beyond the Standard Picture of the Universe? Cosmology in Extended Proca-Nuevo Gravity

Monday, 16 November 2026 13:00 (15 minutes)

The success of the Λ CDM model is tempered by unresolved questions surrounding the nature of dark energy and the cosmological constant. These challenges motivate the exploration of modified theories of gravity as viable alternatives to General Relativity. In this talk, I present the Extended Proca-Nuevo (EPN) framework, a ghost-free vector–tensor theory in which a massive spin-1 field drives the late-time evolution of the Universe. I will discuss the background cosmology and its implications for possible aspects of alleviating cosmological tensions. I will highlight recent observational constraints from current cosmological datasets, demonstrating the potential of the EPN framework as a promising candidate for cosmology beyond the standard model.

Primary authors: Dr DE, Avik (Universiti Malaya); Dr NAGARAKODIGE SHASHIKANTHA, Kavya (Universiti Malaya); Dr LOO, Tee-How (Universiti Malaya)

Presenter: Dr NAGARAKODIGE SHASHIKANTHA, Kavya (Universiti Malaya)