Applications of Quantum Information in Astrophysics and Cosmology Contribution ID: 31 Type: Research Talk

## New exact vacuum solutions and wormholes in $\mathbb{R}^2$ gravity

Wednesday 26 April 2023 16:00 (15 minutes)

In this talk, I shall present a novel class of non-Schwarzschild asymptotically flat metrics in exact closed analytical form for pure  $R^2$  gravity (Phys. Rev. D 106 (2022) 10, 104004). They were recently derived from a program originated by Buchdahl in 1962. I shall also discuss the existence of Morris-Thorne-Buchdahl wormholes using the metrics.

Author: Dr NGUYEN, Hoang (Babes-Bolyai University)

Presenter: Dr NGUYEN, Hoang (Babes-Bolyai University)

Session Classification: Research Talk 11: QIT/ML/Neutrinos/Astrophysics/Cosmology

Track Classification: Cosmology