

The Layzer–Irvine equation in Non–Minimally Coupled Weyl Connection Gravity

Monday 14 April 2025 16:00 (30 minutes)

In this project we will analyse a theory with non-minimal matter–curvature coupling, considering non–metricity properties with a Weyl connection. This model has the advantage of an extra force term which can mimic dark matter and dark energy, and simultaneously follow Weyl’s idea of unifying gravity and electromagnetism. Indeed, we can show astrophysical results like Schwarzschild and Reissner–Nordström black hole solutions and the Layzer–Irvine equation for an homogeneous and isotropic Universe, in order to understand the important role that this non-metricity property can play in several astrophysical systems.

Presenter: LIMA, Maria Margarida (CAMGST - IST & Okeanos - UAç, Portugal)