



GRAVITY: CHALLENGES BEYOND GENERAL RELATIVITY

Contribution ID: 57

Type: **not specified**

Quasi-normal modes of rotating black holes beyond general relativity

Thursday, 23 May 2024 16:30 (15 minutes)

In this talk, I will summarize the recent advancements of quasi-normal modes in alternative theories of gravity. I will briefly explain the main issues in computing the characteristic frequencies of rotating black holes and what are the most prominent strategies to tackle this problem. The approaches covered include the slow-spin and small-coupling expansions. In particular, I will present a beyond-Teukolsky approach for the computation of quasi-normal modes using the continued fraction method, and its application in several modified theories of gravity.

Primary author: FRANCHINI, Nicola (APC)

Co-authors: CAPUANO, Lodovico (Sissa); CANO, Pablo (ICCUB); VOLKEL, Sebastian (AEI); MAENAUT, Simon (KU Leuven)

Presenter: FRANCHINI, Nicola (APC)