

Contributed Talk

Name: Paulo Jorge Valente Garcia

Position: Staff

Affiliation: CENTRA/FEUP

Title: Current status of the GRAVITY experiment

Abstract: We will present the current status of the GRAVITY experiment on the Galactic Centre supermassive black hole. GRAVITY is the most advanced optical-infrared instrument in a ground-based observatory. It sharpens the light of four giant 8 m telescopes with advanced adaptive optics and then combines it interferometrically achieving exquisite precision. It was central for the experimental breakthrough justifying part of 2020 Physics Nobel Prize. We will conduct a review of past achievements since the last Workshop: a) detection of Schwarzschild precession; b) advances in the modelling and interpretation of matter orbiting the ISCO; c) preparatory work for the detection of higher-order effects.