



Contribution ID: 66

Type: **Oral presentation**

Numerical Relativity beyond General Relativity

Thursday 19 June 2025 11:20 (30 minutes)

We will explore the long path from Einstein's equations to computational simulations. I will discuss how Numerical Relativity can serve as a tool to study nonlinear dynamics in alternative theories of gravity. In this talk, I will consider two subclasses of the broader Horndeski theory: those that have a screening mechanism and those involving scalar-Gauss-Bonnet gravity. In particular, I will discuss the rich phenomenology that can be learned, the challenges that must be overcome to extend Numerical Relativity, and the future of relativistic numerical simulations in these theories.

Author: BEZARES, Miguel (University of Nottingham)

Presenter: BEZARES, Miguel (University of Nottingham)