

## **Numerical Relativity beyond General Relativity**

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Observations and theoretical considerations indicate that general relativity, our elegant standard model of gravity, may require modifications at large or high energy scales.

Candidate theories of quantum gravity, in their low-energy limit, typically predict couplings to additional fields or involve higher curvature terms.

At the same time, the breakthrough discovery of gravitational waves has provided a new channel to probe gravity in its most extreme, strong-field regime. To facilitate tests of the nonlinear regime of gravity that unfolds during the collision of compact objects we require numerical relativity simulations of their late inspiral and merger.

In this talk I will give a status update of numerical relativity beyond GR, its modelling challenges and future directions.