

# How to simulate the most catastrophic events in the universe

*Monday 14 December 2015 09:40 (1 hour)*

Einstein's theory of general relativity predicts the existence of compact objects such as black holes and neutron stars, whose properties are the most extreme known and behind some of the most catastrophic events in the universe. I will present the numerical techniques and supercomputing infrastructure that is needed to explore the physics and astrophysics of these objects and predict their manifestations in terms of electromagnetic and gravitational waves.

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