

# Binary Neutron Star Mergers: Numerical Simulations and Observation

*Friday, 14 June 2019 14:30 (50 minutes)*

I will review the current state of the art of fully general relativistic numerical simulations of binary neutron star mergers. I will focus in particular on what we can learn from the gravitational wave and electromagnetic emission. These sources emit indeed strong gravitational waves and power bright electromagnetic signals that are strongly correlated with the properties of matter and spacetime in a strong-gravity regime. I will also describe how observations of these systems match theoretical predictions and how they can be used to provide further information on cosmological parameters and alternative theories of gravity.

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