## Black Holes, Neutron Stars, and Gravitational Waves @ Black Sea



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## Exploring neutron-star mergers in numerical relativity

Tuesday 17 June 2025 09:00 (40 minutes)

Numerical relativity plays many important roles in astrophysics and general relativity, e.g., in understanding mergers of black holes and neutron stars, formation processes of black holes for a wide variety of stellar collapse, and launching mechanisms of jets. In this talk, I will summarize our current understanding of the merger and post-processes for neutron-star binaries introducing our latest results of numerical simulations. I will pay particular attention to nucleosynthesis of heavy elements and provide predictions for the future observations and also give a speculation for the merger process of GW170817 if I have time.

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