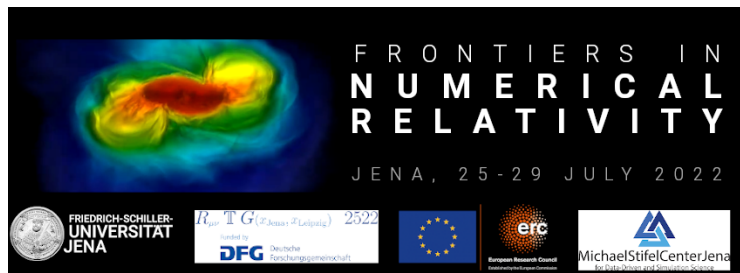


Frontiers in Numerical Relativity 2022 (FNR2022)



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Merger simulations of GW170817 with V-QCD EOS

Wednesday, 27 July 2022 09:15 (15 minutes)

In my talk, I will present the latest results of general relativistic hydrodynamic simulations of binary neutron star mergers with the recently introduced finite-temperature extension of the V-QCD equation of state. The V-QCD model is based on the gauge/gravity duality and provides a consistent description of nuclear and quark matter at densities beyond nuclear saturation which are realized in neutron stars. We simulate binaries that are consistent with GW170817 and study the imprint that a hadron-quark phase transition may have in the gravitational-wave emission and in the thermodynamical properties of the post-merger remnant.

Presenter: TOPOLSKI, Konrad (Goethe University Frankfurt)

Session Classification: Short talks