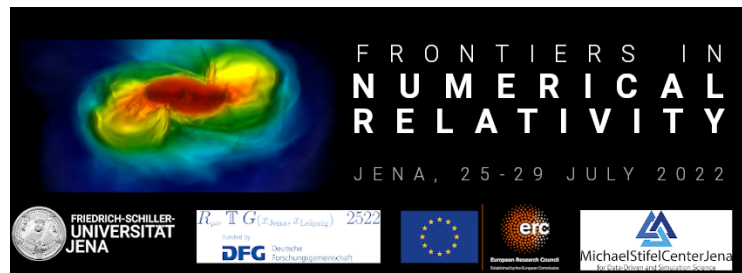


## Frontiers in Numerical Relativity 2022 (FNR2022)



Contribution ID: 4

Type: not specified

# Neutron star merger simulations to enable multi-messenger astronomy studies

*Tuesday, 26 July 2022 15:45 (45 minutes)*

Numerical-relativity simulations are prerequisites for a reliable interpretation of multi-messenger events such as binary neutron star or black hole neutron star mergers. When using simulation results to interpret observational data, it is of uttermost importance to also ensure a proper discussion of the uncertainties of the simulations. Keeping this in mind, we show some of our most recent results and identify how simulation uncertainties could affect the development of gravitational-wave and electromagnetic models. Finally, we will discuss some of the most recent developments of our numerical-relativity code BAM and review its capability and shortcomings in simulating compact binary mergers.

**Presenter:** Prof. DIETRICH, Tim (University of Potsdam)

**Session Classification:** Invited talks