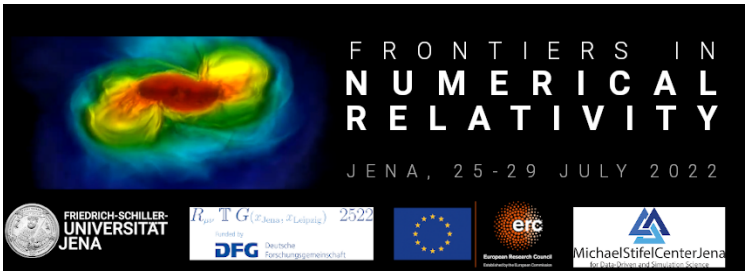

Contribution ID: **1** Type: **not specified**

Postmerger phase of neutron star coalescences

Tuesday, 26 July 2022 17:00 (45 minutes)

We discuss the postmerger stage of binary neutron star coalescences. We present an analytic model of postmerger gravitational-wave emission, which achieves an overall good description of the gravitational-wave signal. The physical parameters of the model are useful to understand the dynamics of the system, and we identify new mechanisms shaping the gravitational-wave spectrum. Moreover, we address the deviations of individual data points in quasi-universal relations of postmerger gravitational-wave features encoding the equation of state dependence. We also discuss the threshold for prompt black-hole formation and the impact of strong phase transitions on postmerger properties.

Presenter: Dr BAUSWEIN, Andreas (GSI Helmholtzzentrum für Schwerionenforschung)

Session Classification: Invited talks