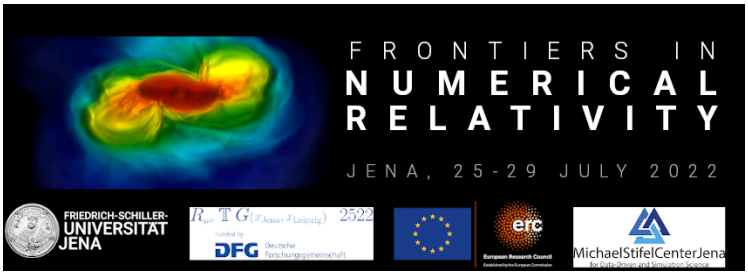

Contribution ID: **54** Type: **not specified**

Mergers of Dark-Matter admixed Neutron Stars

Thursday, 28 July 2022 12:00 (15 minutes)

We discuss the construction of quasi-equilibrium configurations of compact binaries, in which each component of the binary is modeled as a mixture of two ideal fluids. For the first fluid we use an ordinary baryonic-matter equation-of-state and for the second fluid, describing dark matter, we trial different dark-matter equation-of-state. We use the obtained quasi-equilibrium configurations as the basis for numerical relativity merger simulations and analyse the impact of the dark matter on the system's dynamical properties and the waveforms of the emitted gravitational radiation.

Presenter: Dr RÜTER, Hannes (University of Coimbra)

Session Classification: Short talks