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Type: **Contributed Talk (20 minutes)**

Quasi-Equilibrium Configurations of Compact Binaries Composed of Two Fluids

Monday, 6 June 2022 16:45 (20 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. We will consider in particular the application to neutron stars, where the two-fluid description is used for example for superfluid neutron stars or dark-matter admixed neutron stars.

Quasi-equilibrium configurations provide the best form of initial data for numerical relativity simulations and are therefore an important ingredient for simulations of compact binaries. They hence form the basis for future two-fluid simulations of neutron star binaries.

Which topic best fits your talk?

Modelling and Machine Learning Algorithms

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