Contribution ID: 76

Type: Talk

The nuclear equation of state at highest compression - from gravitational waves and high energy heavy ion collisions

Wednesday 9 September 2020 12:30 (1 hour)

Compressed hot nuclear matter can be produced in high energy heavy ion collisions and in supernova collapse and binary neutron star mergers. Relativistic numerical nuclear fluid dynamics demonstrates that the densities and temperatures reached in these cosmic environments match neatly those reached at the new international FAIR facility in Europe. The gravitational wave spectrum of the former and the flow signatures of the latter can yield information about phase transitions in the nuclear equation of state into resonance matter and strange quark matter.

Author: STOECKER, Horst (GSi)

Presenter: STOECKER, Horst (GSi)

Session Classification: COMPACT STARS, DM, GWs, PARTICLES, Y-RAYS, QGP QCD, HIC, SNO-VAE