Contribution ID: **175** Type: **Talk**

The Physics of twin stars

Friday 11 September 2020 13:26 (7 minutes)

In this contribution, we investigate the possibility of a third family of compact stars under different scenarios. First, we will focus on the microscopic description of stars and discuss how different properties of matter can influence the rising of twin stars. For doing so, we carry out an analysis of different parameters used to describe hadronic and quark matter with relativistic mean field models. Next, we discuss how macroscopic properties of stars, such as magnetic fields and rotation can also play a role in the creation and elimination of twin stars scenarios. Finally, we briefly present results for cooling of such stars, highlighting its importance as another observable for identifying third families scenarios.

Author: OLIVEIRA GOMES, Rosana (Frankfurt Insitute for Advanced Studies)

Presenter: OLIVEIRA GOMES, Rosana (Frankfurt Insitute for Advanced Studies)

Session Classification: DM, DE, GWs, BHs, GRAVITATION, GALAXIES, QCD, LIFE, GRBs, COSMOLOGY, OA, KT