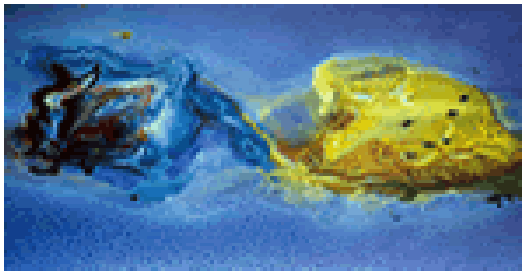

Contribution ID: **149** Type: **Invited talk**

Was GW170817 not a merger of two neutron stars?

Wednesday, 1 August 2018 14:40 (20 minutes)

We discuss the case that GW170817 may not have been the merger of a neutron star (NS) with another neutron star, but rather with a hybrid star (HS) possessing a quark matter core, or even a HS-HS merger, and the implications for the equation of state of dense matter at supersaturation densities.
References:
[1] D. Blaschke & N. Chamel, "Phases of dense matter in compact stars", Chapter 7 of the NewCompStar White Book; arxiv:1803.01836
[2] V. Paschalidis et al., "Implications from GW170817 and I-Love-Q relations for relativistic hybrid stars", PRD 97, 084038 (2018)
[3] A. Ayriyan et al., "Robustness of third family solutions for hybrid stars against mixed-phase effects", PRC 97, 045802 (2018)
[4] D. Alvarez-Castillo et al., "Third family of compact stars within a nonlocal chiral quark model equation of state", arxiv:1805.04105 (2018)

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