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Type: **Invited talk**

Merger of two compact stars within the two-families scenario

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

I will discuss how the process of merger of two compact stars is described within the two-families scenario. In that scenario hadronic stars made of nucleons, of delta resonances and of hyperons can co-exist with strange quark stars made (almost) entirely of deconfined quarks. I will discuss the event of August 2017 at the light of that scheme, concluding that it was associated with the merger of a hadronic star with a strange quark star.

1) Merger of two neutron stars: predictions from the two-families scenario.

A.Drago, G.Pagliara; *Astrophys.J.* 852 (2018) no.2, L32

2) The merger of two compact stars: a tool for dense matter nuclear physics. A.Drago, G.Pagliara, S.B.Popov, S.Traversi, G.Wiktorowicz; *Universe* 4 (2018) no.3, 50

3) Has deconfined quark matter been detected during GW170817/AT2017gfo?

G.F.Burgio, A.Drago, G.Pagliara, H.J.Schulze, J.B.Wei; arXiv: 1803.09696, accepted by *Astrophys.J.*

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