

# PHAROS Conference 2020: The multi-messenger physics and astrophysics of neutron stars



Contribution ID: 170

Type: Oral Presentation

## New neutron star solutions in tensor-multi-scalar theories

Wednesday 1 April 2020 16:30 (15 minutes)

In this talk we will present some very interesting solutions describing neutron stars in tensor-multi-scalar theories of gravity. It turns out that in certain subclasses of these theories, the spectrum of solutions can be very rich leading to interesting observational consequences. Taking into account that the scalar-tensor theories are ones of the few examples of mathematically well posed alternative theories of gravity, the presented solutions offer the perfect opportunity to study the dynamics and impose further constraints on the strong field regime of gravity via future astrophysical observations.

**Authors:** YAZADJIEV, Stoytcho; DONEVA, Daniela (University of Tuebingen)

**Presenter:** YAZADJIEV, Stoytcho

**Session Classification:** Parallel 3B

**Track Classification:** General relativity, mergers and gravitational waves