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## Tidal deformability of magnetized strange stars

We study the effects of magnetic fields in the gravitational wave signals. Two main scenarios are explored, the first is the gravitational waves emitted from isolated neutron stars due to the deformation caused by the strong magnetic field, the second one is the effects of the magnetic field in the gravitational wave signal of a binary system. This work is a preliminary step towards that direction. First, we find the mass-radius relations for Strange Stars and compare them with the theoretical and observational constraints from modern literature. Finally, we calculate the tidal deformability of magnetized Strange Stars.

Author: LÓPEZ, Samantha (Institute of Cybernetics, Mathematics and Physics)

**Co-authors:** Dr MANREZA, Daryel (University of Havana); Dr PÉREZ, Aurora (Institute of Cybernetics, Mathematics and Physics)

**Presenter:** LÓPEZ, Samantha (Institute of Cybernetics, Mathematics and Physics)