



Contribution ID: 42

Type: poster

Constraints on Axion-like particles from hot neutron star in HESS J1731-347

Wednesday, 23 May 2018 16:30 (1h 30m)

The neutron star in HESS J1731-347 is the hottest known isolated neutron star for its age (excluding magnetars). It is cooling mainly due to neutrino emission from its core, and this emission has to be inefficient because of the high observed temperature. This fact allows us to put constraints on other hypothetical cooling processes like axion emission in n-n bremsstrahlung processes and improve the constraint obtained from SN 1987A on the coupling of axion to neutrons.

Primary author: Dr BEZNOGOV, Mikhail (Institute of Astronomy of National Autonomous University of Mexico)

Co-authors: Dr PAGE, Dany (Instituto de Astronomia, Universidad Nacional Autonoma de Mexico); Dr REDDY, Sanjay (Institute for Nuclear Theory and Department of Physics, University of Washington); Mr RRAPAJ, Eral (postdoc)

Presenter: Dr BEZNOGOV, Mikhail (Institute of Astronomy of National Autonomous University of Mexico)

Session Classification: Poster Session