

Seminario, Quarta 05/10/2022 16:00h

Local: Evento à distância, será transmitido pelo Zoom através do link
[https://us02web.zoom.us/j/82228892557?
pwd=NEd5R3VJWXBaZXkyMX11dC9vWTd1UT09](https://us02web.zoom.us/j/82228892557?pwd=NEd5R3VJWXBaZXkyMX11dC9vWTd1UT09)

Gonzalo Alonso-Álvarez, (McGill University)

Title: The strange physics of dark baryons

The origin of dark matter and the matter-antimatter asymmetry of the Universe may be explained by the existence of GeV-scale dark sector particles carrying baryon number. The interactions of such dark baryons with first-generation quarks are known to have implications for collider experiments, neutron stars, and the lifetime of the neutron. After reviewing these topics, I will focus on the phenomenology of dark baryon interactions with strange quarks. This includes their impact on the decay of exotic hadrons, core-collapse supernova explosions, and new physics searches at the LHC and flavour physics experiments.