Contribution ID: **37** Type: **not specified**

Connecting the baryons to the dark matter of the Universe

Thursday 2 May 2024 11:20 (20 minutes)

The existence of dark matter in our Universe and the existence of an asymmetry between nucleons and antinucleons are two of the most solid evidences for physics beyond the Standard Model. Many mechanisms have been proposed to explain these two phenomena. On the other hand, these mechanisms typically involve different particles and different energy scales, therefore the observed similarity between the dark matter abundance and the nucleon abundance is merely coincidental. In this talk we will propose a scenario that can accommodate the observed nucleon-antinucleon asymmetry without fulfilling the Sakharov conditions. Further, our scenario predicts a stable dark matter candidate without invoking new ad-hoc symmetries, and with an abundance which is in the ballpark of the observed value.

Primary author: IBARRA, Alejandro (Technical University of Munich)

Presenter: IBARRA, Alejandro (Technical University of Munich)

Session Classification: Talks