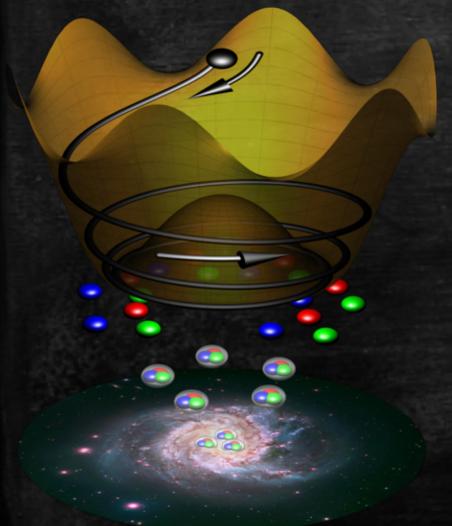
Lepto-Axiogenesis

Raymond Co Michigan -> Minnesota

1910.02080 RC, K. Harigaya Phys. Rev. Lett. 124, 111602 (2020)
1910.14162 RC, L. Hall, K. Harigaya Phys. Rev. Lett. accepted
2006.06687 RC, N. Fernandez, A. Ghalsasi, L. Hall, K. Harigaya



Abstract:

We propose a baryogenesis mechanism where axion's rotation in the potential is initiated by explicit Peccei-Quinn symmetry breaking in the early Universe and gives rise to the observed baryon asymmetry. With the aid of the neutrino Majorana mass term, the Peccei-Quinn charge associated with the rotation is sequentially transferred to the baryon asymmetry. Dark matter is simultaneously produced from the kinetic misalignment mechanism and/or parametric resonance.

Office hour: afternoon coffee break on Wednesday 3-4 pm CEST.

