



Contribution ID: 48

Type: **not specified**

## Lepto-Axiogenesis

*Thursday 24 September 2020 11:40 (20 minutes)*

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. QCD axion dark matter can be simultaneously produced by dynamics of the same PQ field via kinetic misalignment and/or parametric resonance.

**Author:** FERNANDEZ, Nicolas (University of Illinois at Urbana-Champaign)

**Presenter:** FERNANDEZ, Nicolas (University of Illinois at Urbana-Champaign)

**Session Classification:** CoCo