Baryogenesis from monopole catalysis of baryon decays

Saturday 16 November 2024 16:20 (20 minutes)

Monopole, generically produced in any Unification theories, can also catalyze baryon decays at an unsuppressed rate, known as the Callan-Rubakov effect. This naturally provides a source of baryon number violation in both the early Universe and late Universe. For the first time, we propose a scenario to produce the primordial baryon asymmetry using the Callan-Rubakov effect and point out potential experimental signals.

Authors: XIAO, Huangyu (Fermilab); WANG, Liantao; BRENNAN, Theodore Daniel

Presenter: XIAO, Huangyu (Fermilab)

Session Classification: 3:20-4:40