

Light Dark Matter through Resonance Scanning

Wednesday 19 May 2021 14:45 (15 minutes)

We propose a new out-of-equilibrium production mechanism of light dark matter: resonance scanning. If the dark matter mass evolved in the early Universe, resonant production may have occurred for a wide range of light dark matter masses today. We show that the dark matter relic abundance may be produced through the Higgs portal, in a manner consistent with current experimental constraints.

Authors: HOUTZ, Rachel (IPPP Durham); CROON, Djuna (TRIUMF); ELOR, Gilly; MURAYAMA, Hitoshi (University of California Berkeley (US)); Dr WHITE, Graham (TRIUMF)

Presenter: HOUTZ, Rachel (IPPP Durham)

Session Classification: Light DM Detection 1