

Colour Unified Dynamical Axion

Wednesday 23 May 2018 15:00 (20 minutes)

A massless quark solution to the Strong CP problem is implemented with an extra confining gauge group that is unified with the SM QCD group in a CUT (Colour Unified Theory). A novel contribution to the axion mass (due to the small-size instantons at the CUT breaking scale) renders the dynamical axion heavy. This allows to protect the PQ symmetry from semi-classical gravitational effects that could spoil the solution to the strong CP problem.

Presenter: QUÍLEZ LASANTA, Pablo (UAM/CSIC)

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