



KCETA Colloquium

Inflation and the Structure of the Higgs Vacuum

Thursday, December 14, 2023

Kleiner Hörsaal A (CS) 15:45 - 17:00

Dr. Matthew McCullough (CERN)

When the fundamental parameters of a theory are functions of a scalar field subject to large fluctuations during inflation, quantum phase transitions can act as dynamical attractors. As a result, the theory parameters can be probabilistically localised around critical values, with the Universe finding itself at the edge of a phase transition. We illustrate how this mechanism could account for the observed near-criticality of the Higgs vacuum, as well as an explanation for the naturalness of the Higgs mass.



Please note:

The colloquium will also be live-streamed to Seminarraum 224 in Bld. 402 (CN).