



SPEAKER: Jordy De Vries

TITLE: Lepton number violation in effective field theory

DATE: 24 Feb 2021, 15:00 PLACE:

ABSTRACT

Next-generation neutrinoless double-beta decay (0vbb) experiments aim to discover lepton number violation in order to shed light on the nature of neutrino masses. A non-zero signal would have profound implications by demonstrating the existence of elementary Majorana particles and possibly pointing towards a solution of matter-antimatter asymmetry in the universe. However, the interpretation of the experimental signal (or lack thereof) requires care as complicated hadronic and nuclear input is required to connect the experimental data to a fundamental description of lepton-number violation. In this talk, I use effective field theories to measurements fundamental connect low-energy to the lepton-number-violating source. In particular, I will argue that interpretation of neutrinoless double beta decay in terms of a light Majorana neutrino mass is more complicated than normally considered. https://unipd.zoom.us/j/81195975077

Organized by Ramona Gröber