HECA Seminar
(High Energy, Cosmology and Astro-particle physics)
HECA web-page

Tuesday 22.10.2019, h 12:00
Pasteura 5, room B2.38 (Faculty of Physics)

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Accessible Lepton-Number-Violating Models and Negligible Neutrino Masses

Abstract

In this talk, I will first review lepton-number violation (LNV) and lepton-flavor violation (LFV) in the Standard Model and beyond as well as the connection between LNV and LFV. Then, I discuss a complete family of models where lepton number is violated but the generated Majorana neutrino masses are tiny, even if the new-physics scale is below 1 TeV. The phenomenology of these models are explored, including charged-lepton flavor-violating phenomena and baryon-number-violating phenomena. I will identity scenarios where the allowed rates for $\mu^- \to e^+$ conversion in nuclei are potentially accessible to next-generation experiments.

Best regards,

Andrzej Hryczuk
Kamila Kowalska
Kazuki Sakurai
Enrico Maria Sessolo
Krzysztof Turzyński