

Heavy neutral leptons as long-lived particles

Monday 27 June 2022 15:00 (30 minutes)

Interest in searches for heavy neutral leptons (HNLs) has gained significant momentum over the past few years with the appearance of several proposals for new dedicated “far” detectors to search for long-lived particles at the LHC. In this talk, I will briefly discuss HNLs and their possible connection with neutrino masses. I will then introduce NRSMEFT, i.e. standard model effective theory extended with a “light” (i.e. mass around the electro-weak scale) right-handed neutrino. Based on two recent papers, I will discuss the prospects to discover HNLs in this setup at the high-luminosity LHC.

Author: HIRSCH, Martin

Presenter: HIRSCH, Martin

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