

# Lepton Number Violation and Muon-to-Positron Conversion

Tuesday

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4:00 P.M.

Rm 415 NSH

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Neutrino oscillations have revealed that lepton flavor is violated in Nature, but it is unknown whether or not lepton number is conserved. Moreover, if lepton number is indeed violated, then it is not guaranteed that neutrinoless double beta decay experiments will ever produce a positive result. In this talk, I will discuss the connection between Majorana neutrino masses and other lepton-number-violating (LNV) processes using effective field theory. Further, I will present estimates of the sensitivities of next-generation muon-to-electron conversion experiments to the scale of LNV physics, through searches for muon-to-positron conversion.