

Investigating the BNV dinucleon to dilepton decays in the EFT

Tuesday, 9 April 2024 14:30 (20 minutes)

Baryon number violation (BNV) is well-motivated by the BSM physics. Usually, the $\Delta B = 1$ nucleon decay is predicted with the NP scale being pushed around the GUT scale inaccessible directly for the current collider experiments. However, there exist TeV scale NP scenarios in which the $\Delta B = 1$ processes are suppressed but that of the $\Delta B = 2$ are dominant. In this latter case, I will take an effective field theory approach to discuss the $\Delta B = \Delta L = -2$ dinucleon to dilepton decays in nuclei ($pp \rightarrow l+l'+$, $pn \rightarrow l+\nu'$, $nn \rightarrow \bar{\nu}\bar{\nu}'$).

Primary author: Dr MA, Xiao-Dong (SCNU)

Presenter: Dr MA, Xiao-Dong (SCNU)

Session Classification: Plenary