

Leptoflavorgenesis: baryon asymmetry of the Universe from lepton flavor violation

Thursday, 13 January 2022 19:00 (1 hour)

Charged-lepton flavor violation (CLFV) is a smoking-gun signature of physics beyond the Standard Model. The discovery of CLFV in upcoming experiments would indicate that CLFV processes must have been efficient in the early Universe at relatively low temperatures. We have pointed out that such efficient CLFV interactions open up new ways of creating the baryon asymmetry of the Universe. In this talk, I will describe two scenarios of what we call leptoflavorgenesis, where efficient CLFV processes are responsible for the generation of primordial lepton flavor asymmetries that are subsequently converted to a baryon asymmetry by weak sphaleron processes.

Presenter: YAMADA, Masaki