Abstract

Although lepton flavor conservation forbids processes such as $\mu \rightarrow e\gamma$, theories beyond the standard model can introduce new terms to the Lagrangian that give rise to such processes. So far such a decay has not been observed but a strong bound on the branching ratio has been derived:

$Br(\mu \rightarrow e\gamma) < 1.2 \times 10^{-11}$ at 90% C.L.

There are experiments under construction that can improve this bound by several orders of magnitude. If the branching ratio saturates the present bound on it, the forthcoming experiments not only can measure the branching ratio with high precision but they can also provide information on the angular distribution of the produced e relative to the spin of muon. In this seminar, we discuss how we can extract information by studying the angular distribution.