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【303】 Discovering Lepton Flavour Universality Violating New Physics

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While the LHC has not discovered any new particles directly yet, hints for the violation of lepton flavour universality (satisfied within the SM) accumulated in recent years. In particular, deviations from the SM predictions were observed in semi-leptonic B decays ($b \rightarrow sll$ and $b \rightarrow c\tau$), in the anomalous magnetic moment of the muon ($g-2$), in leptonic tau decays and di-electron searches. Furthermore, also the deficit in first row CKM unitarity, known as the Cabibbo Angle Anomaly, can be interpreted as a sign of lepton flavour universality violation. In this talk I review the status of these anomalies and give an overview of the possible interpretations in terms of new physics models.

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