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LHC vs. Precision Experiments - A comparison of LFV D6 operators QQLL at the LHC and Precision Experiments

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Precision experiments usually lead to the best limits on lepton flavour violating operators. However in light of the new possibilities at the LHC, one might wonder, how its capability to test lepton flavour violating processes compares to precision experiments.
I will present a sensitivity study of the LHC to lepton flavour violating operators of dimension 6 with two same flavour quarks and different flavour leptons and compare its reach to results from precision measurements of lepton flavour violating processes. For light quarks precision measurements yield the most stringent constraints. The LHC complements precision measurements for operators with heavier quarks. Competitive limits can already be set on the cutoff scale $\Lambda > 600$–800 GeV for operators with right-handed τ leptons using the LHC run 1 data.

Authors: SCHMIDT, Michael (The University of Sydney); CAI, Yi

Presenter: SCHMIDT, Michael (The University of Sydney)

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