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Searches for new physics with leptons using the ATLAS detector

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Many theories beyond the Standard Model predict new phenomena, such as Z' , W' bosons or heavy neutrinos, in final states with isolated, high-pt leptons ($e/\mu/\tau$). Searches for new physics with such signatures, produced either resonantly or non-resonantly, including a general search using multilepton final states are performed using the ATLAS experiment at the LHC. Lepton flavor violation (LFV) is a striking signature of potential beyond the Standard Model physics. The search for LFV with the ATLAS detector is reported in searches focusing on the decay of the Z boson into different flavour leptons ($e/\mu/\tau$). The recent 13 TeV pp results will be reported.

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Collaboration / Activity

ATLAS

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