Contribution ID: **99** Type: **not specified**

Searches for new physics with leptons using the ATLAS detector

Monday 27 June 2022 16:20 (20 minutes)

Many theories beyond the Standard Model predict new phenomena, such as Z', W' bosons, or heavy leptons, in final states with isolated, high-pt leptons (e/mu/tau). Searches for new physics with such signatures, produced either resonantly or non-resonantly, are performed using the ATLAS experiment at the LHC. This includes a novel search that exploits the lepton-charge asymmetry in events with an electron and muon pair. Lepton flavor violation (LFV) is a striking signature of potential beyond the Standard Model physics. The search for LFV with the ATLAS detector focuses on the decay of the Z boson into different flavour leptons (e/mu/tau). The recent 13 TeV pp results will be reported.

Presenter: LEBAN, Blaž (Jozef Stefan Institute (SI))

Session Classification: SUSY: Phenomenology and Experiment