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## Searches for BSM physics using challenging and long-lived signatures with the ATLAS detector

*Tuesday 27 July 2021 16:15 (15 minutes)*

Various theories beyond the Standard Model predict unique signatures that are difficult to reconstruct and for which estimating the background rate is also a challenge. Signatures from displaced decays anywhere from the inner detector to the muon spectrometer, as well as those of new particles with fractional or multiple values of the charge of the electron or high mass stable charged particles are all examples of experimentally demanding signatures. The talk will focus on the most recent results using 13 TeV pp collision data collected by the ATLAS detector. Prospects for the HL-LHC will also be shown.

### Collaboration / Activity

ATLAS

### First author

### Email

**Primary authors:** COLLABORATION, ATLAS; CORPE, Louie (CERN)

**Presenter:** CORPE, Louie (CERN)

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