Contribution ID: **41** Type: **Talk**

ATLAS searches for supersymmetry with prompt particles

Friday 9 September 2022 11:00 (20 minutes)

Supersymmetry (SUSY) provides elegant solutions to several problems in the Standard Model, and searches for SUSY particles are an important component of the LHC physics program. This talk will present the latest results from SUSY searches conducted by the ATLAS experiment. The searches target multiple final states and different assumptions about the decay mode of the produced SUSY particles, including searches for both R-parity conserving models and R-parity violating models and their possible connections with the recent observation of the favour and muon g-2 anomalies. The talk will also highlight the employment of novel analysis techniques, including advanced machine learning techniques and special object reconstruction, that are necessary for many of these analyses to extend the sensitivity reach to challenging regions of the phase space.

Is this abstract from experiment?

Yes

Name of experiment and experimental site

ATLAS

Is the speaker for that presentation defined?

Yes

Details

Ms Shuhui Huang
shuhui.huang@cern.ch (University of Hong Kong (HK))
Physical presence

Internet talk

No

Authors: VARNES, Erich Ward (University of Arizona (US)); HUANG, Shuhui (University of Hong Kong (HK))

Presenter: HUANG, Shuhui (University of Hong Kong (HK))

Session Classification: High Energy Particle Physics