ID contributo: **64** Tipo: **Poster**

Ricerca di anomalie come nuove risonanze che decadono in un bosone di Higgs ed un generico bosone X in stati completamente adronici in collisioni p-p a 13 TeV con l'esperimento ATLAS

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Anomaly detection search for new resonances decaying into a Higgs boson and a generic new boson X in hadronic final states using √s = 13 TeV pp collisions with the ATLAS detector
Abstract: A search is presented for heavy resonances decaying into a Higgs boson (H) and a new particle (X) in a fully hadronic final state with an integrated luminosity of 139 fb−1 of proton–proton collision data at √s=13 TeV with the ATLAS detector at the CERN Large Hadron Collider. A novel discovery signal region is implemented based on a jet-level anomaly score for signal model-independent tagging of the boosted X boson, representing the first application of fully unsupervised machine learning to an ATLAS analysis. No significant excess of data is observed over the expected background, and the results are interpreted in upper limits at 95% confidence level on the production cross section σ(pp⟶Y⟶XH) for signals with mY between 1 and 6 TeV and mX between 65 and 3000 GeV.

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Classifica Sessioni: Poster