

Search for String Resonances in ATLAS

Tuesday, 9 February 2021 16:30 (15)

Some string theories predict that the extra dimensions of space must be large. In this scenario the energy scale of strings is on the order of TeV and string resonances can be produced in proton-proton collisions. This makes the theory a good candidate for investigation at the Large Hadron Collider. Using the cross sections of string resonances we can simulate particle interactions and compare results to data collected by the ATLAS detector. We generate events at several string scales and study the significance of signals over QCD background in the dijet invariant mass distribution. We search resonant for deviations from smooth background and set lower limits on string scale.

email address

rflyons@ualberta.ca

Please select: Experiment or Theory

Experiment

Primary author(s) : Ms LYONS, Fairhurst (University of Alberta)

Presenter(s) : Ms LYONS, Fairhurst (University of Alberta)