

Search for New Physics in Dijet Mass and Angular Distributions in pp Collisions at $\sqrt{s} = 7$ TeV Measured with the ATLAS Detector

We present a search for physics beyond the Standard Model in proton-proton collisions at a centre-of-mass energy of $\sqrt{s} = 7$ TeV, performed with the ATLAS Detector at the Large Hadron Collider (LHC). In 2010, no sign of new physics was observed in dijet mass and angular distributions and the world's best limits were set on a variety of models of new physics, including excited quarks, quark contact interactions, axigluons, and quantum black holes. For example, an excited quark was excluded with mass between 0.60 and 2.64 TeV and quark contact interactions were excluded with a compositeness scale below 9.5 TeV. Pending approval and LHC performance, we anticipate presenting new results from a significantly larger dataset.

Auteur principal: DIETZSCH, Thorsten (University of Heidelberg)

Orateur: DIETZSCH, Thorsten (University of Heidelberg)