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Search for Dijet Resonances in the Dijet Mass Distribution at CMS in pp Collisions CHIYOUNG JEONG, Texas Tech University, CMS COLLABORATION — We present a measurement of the dijet invariant mass spectrum and search for new particles decaying to dijets at CMS in pp collisions. The dijet mass distribution of the two leading jets is measured and compared to QCD predictions from PYTHIA propagated through the CMS detector simulation. We fit the observed dijet mass spectrum with a parameterization, search for dijet resonances, and set upper limits at 95% confidence level on the resonance cross section. These generic cross section limits are compared with theoretical predictions for the cross section for several models of new particles: string resonances, axigluons, colorons, excited quarks, E6 diquarks, Randall-Sundrum gravitons, W' and Z'.

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