

Abstract

The search for narrow resonances in the dijet mass spectrum and quark compositeness in the form of quark contact interactions, based on hadronic jet pairs (dijets) produced in proton-proton collisions at $\sqrt{s} = 7$ TeV, are described. The data sample of the study corresponds to an integrated luminosity of 2.9/pb collected with the CMS detector at the LHC.

The di-jet centrality ratio, which quantifies the angular distribution of the dijets, is measured as a function of the invariant mass of the dijet system and is found to agree with the predictions of the Standard Model. The results are based on the following articles:

Phys.Rev.Lett.105,262001,2010

Phys.Rev.Lett.105:211801,2010