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Sensitivity to Contact Interactions from Quark Compositeness at CMS SELDA ESEN, FNAL, ROBERT HARRIS, FNAL, CMS COLLABORATION — CMS will measure dijets in proton-proton collisions at $\sqrt{s} = 14$ TeV. The angular distribution of dijets as a function of invariant mass is sensitive to a contact interaction among quarks that could arise if quarks are not pointlike particles. The sensitive part of the angular distribution is measured by the dijet ratio: the number of dijet events with $|\eta| < 0.5$ divided by the number of dijet events with $0.5 < |\eta| < 1.0$. As a function of dijet invariant mass, we present estimates of the dijet ratio for both the QCD background and a contact interaction signal. For integrated luminosities of 100 pb^{-1}, 1 fb^{-1} and 10 fb^{-1}, we present CMS capability to exclude or discover contact interactions from quark compositeness.

Sarah Eno
U. Maryland

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