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Multijet cross sections and ratios in pp collisions at 13 TeV with CMS

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A measurement of inclusive differential multijet cross sections and ratios is presented. The analysis is based on data from proton-proton collisions collected by the CMS experiment at a centre-of-mass energy of 13 TeV, corresponding to an integrated luminosity of 59.8 fb^{-1} . The observables R_{mn} are calculated from the corresponding differential multijet cross sections with different multiplicities for m, n . Jets are reconstructed using the anti- k_T clustering algorithm with jet size parameter $R = 0.8$. The analysis sample includes all jets with $p_T > 150 \text{ GeV}$ and absolute rapidity within $|y| < 2.5$ region. The inclusive differential multijet cross sections and their ratios R_{mn} are measured as a function of the average transverse momentum $H_{T,2}/2$ of the two leading jets. Experimental data are compared to predictions from simulations using various Monte Carlo generators.

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