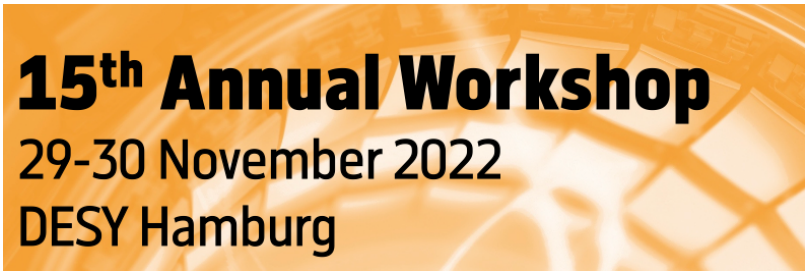

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First results from inclusive jet measurement with CMS Ultra-Legacy Run 2 data

Tuesday 29 November 2022 11:25 (20 minutes)

We present preliminary results of the measurement and QCD analysis of double-differential inclusive jet cross sections in proton-proton collisions by using the full Run II data collected by CMS experiment at LHC at a center of mass energy of 13 TeV. The higher accumulated luminosity of full Run II opens up new corners of the phase space. This permits further testing of the Standard Model (SM) and facilitates indirect searches for physics beyond the SM. Our study addresses the high transverse momentum region, where possible contributions of new physics, e.g. different models of 4-quark contact interactions, are most significant. Furthermore, the precision of the parton distribution functions can be significantly improved and the strong coupling constant can be extracted. In this talk, I will give an overview of the current status of the measurement.

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