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Measurement of multijet events and photon production with ATLAS

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The production of jets at hadron provides stringent tests of perturbative QCD. We present the latest measurements using proton-proton collision data collected by the ATLAS experiment at $\sqrt{s} = 13$ TeV. We will discuss the measurement of new event-shape jet observables defined in terms of reference geometries with cylindrical and circular symmetries using the energy movers distance. The results are unfolded for detector effects and compared to the state-of-the-art next-to-leading order parton shower generators. If ready, the measurement of strong coupling constant will be presented using the ratio of 3-jet to 2-jet events. Finally, prompt inclusive photon production is measured for two distinct photon isolation cones, $R=0.2$ and 0.4 , as well as for their ratio.

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