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Top quark pair and single top t-channel cross sections

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Latest results on inclusive and differential top quark pair and single top quark production cross sections are presented using proton-proton collision data collected by CMS and ATLAS. The differential cross sections are measured as a function of various kinematic observables of the top quarks and the jets and leptons of the event final state. The results are confronted with precise theory calculations and used to constrain Standard Model parameters. For the first time, multi-differential tt cross sections are used to constrain simultaneously the top quark pole mass, alphaS, and PDFs. Moreover, constraints on top Yukawa from differential cross sections are presented.

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