

# Phenomenological Analysis of the process DPS

*Tuesday 20 March 2018 16:00 (1 hour)*

Our understanding about the matter and its interactions is being tested in proton-proton collisions at the Large Hadron Collider (LHC) in a range of energies. Differently from previous colliders, where the cross sections can be estimated assuming that the dominant interaction occurs between one parton of the projectile and one parton of the target, named Single Parton Scattering processes (SPS), in the LHC the contribution of double parton scattering (DPS) processes becomes no negligible due to the high parton luminosity in the initial state of the collision. Such in this opportunity we will present some of the results obtained so far from a phenomenological analysis using the simplified form of the cross section process DPS, where in the initial state they involve gluons, next we will discuss in which work regime is valid and its possible explanations and contributions of phenomenological analysis.

## Summary

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