12th Course on Physics at the LHC 2023



Contribution ID: 2 Type: not specified

Introduction to collisions at LHC

Wednesday, 8 March 2023 17:00 (1h 30m)

- 1\. Hadron interactions. A few reminders (kinematics, etc.). Proton-proton scattering. Hard scattering.
- $2\$ QCD and parton densities. Lepton-proton scattering. Scaling violation.
- 3\. Monte Carlo generators. Parton showers: fragmentation and hadronization.
- 4\. Luminosity and cross-section measurements. Ingredients for cross-section measurement. Luminosity.
- 5\. QCD and jet physics. Higher orders. Jet algorithms. Jet energy scale. Jet cross-section measurements.

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