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Note generali	"Doctoral Thesis accepted by the University of Geneva, Switzerland."
Nota di bibliografia	Includes bibliographical references at the end of each chapters.
Nota di contenuto	The Standard Model of Particle Physics -- A Hadronic Collision -- The CERN Large Hadron Collider and the Compact Muon Solenoid Experiment -- Event Simulation -- Event Reconstruction -- Event Selection -- Study of Detector Effects -- Data Unfolding -- Systematic Uncertainties -- Cross Section Measurement of the 4j and 2b2j Channels and Comparisons with Predictions -- Extraction of the DPS Contribution -- Summary and Conclusions.
Sommario/riassunto	This thesis addresses, in a novel and elegant way, a combination of measurements that are used to extract so-called double parton scattering. The method is easy to apply and overcomes many of the technical difficulties of older methods. Many new phenomena in particle physics can be observed when particles are collided at the highest energies; one of the highlights in recent years was the

discovery of the Higgs boson at the Large Hadron Collider at CERN. Understanding the production mechanism of the Higgs boson at the LHC requires detailed knowledge of the physics of proton-proton collisions. When the density of partons in the protons becomes large, there is a non-negligible probability that more than one parton participates in the interaction and the so-called double parton scattering becomes important. In some cases very particular final state signatures can be observed, which can be regarded as an indication of such double partonic scattering and where the different interactions can be separated. Such multiple partonic interactions play an important role when precise predictions from known processes are required.
