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Note generali	Includes index.
Nota di contenuto	Introduction -- Theoretical Overview -- The LHC and the CMS Experiment -- Event Reconstruction -- Measurement of the Associated Production of W+charm in s = 13 TeV Proton-Proton Collisions -- Determination of the Strange Quark Content of the Proton -- Summary and Conclusions.
Sommario/riassunto	The associated production of a W boson and a single charm quark (W+c) is the only process in proton-proton collisions that directly probes the strange quark content of the proton. In this thesis, W+charm production is measured in proton-proton collisions at the LHC at 13 TeV, as recorded by the Compact Muon Solenoid (CMS) experiment. The analysis focuses on the identification of W bosons in their leptonic decay to a muon and a neutrino and charm quarks are tagged via the full reconstruction of D*-Mesons. The measured cross sections of W+c production are used, in combination with other relevant CMS results and the most precise HERA DIS data, in a QCD analysis to determine the strange quark content of the proton. The resulting strange quark distribution and suppression, with respect to

the other light sea quarks, are in good agreement with those obtained in neutrino scattering experiments and extend their kinematic reach.

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