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Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	The Standard Model of Particle Physics -- Supersymmetry and the MSSM -- Experimental Setup -- Event Simulation -- Event Reconstruction -- Hadronic Tau Identification and Trigger -- Selection of Tau Pairs -- Measurement of Z , Production -- Search for Higgs Bosons -- Synopsis -- Calorimeter Trigger Upgrade for Higher Luminosities.
Sommario/riassunto	The work presented in this thesis spans a wide range of experimental particle physics subjects, starting from level-1 trigger electronics to the final results of the search for Higgs boson decay and to tau lepton pairs. The thesis describes an innovative reconstruction algorithm for tau decays and details how it was instrumental in providing a measurement of Z decay to tau lepton pairs. The reliability of the analysis is fully established by this measurement before the Higgs boson decay to tau lepton pairs is considered. The work described here continues to serve as a model for analysing CMS Higgs to tau leptons measurements. .