

DOWNLOAD PDF RUN II PERSPECTIVES AT CDF: TOP, HIGGS AND SEARCHES

Chapter 1 : Fermilab Results Change Higgs Mass Estimate | News

We present the results of the searches for new phenomena in pp collisions at $\sqrt{s} = \text{TeV}$ with the CDF detector using the full data sample of pb^{-1} collected between and

Using data corresponding to pb^{-1} , we search for the Higgs boson in various production and decay channels. No signal is observed, therefore, we set upper limits on the production cross-section times branching fraction as a function of the Higgs boson mass. However, several open issues of SM, such as the fine tuning required to keep the quadratic radiative correction to the Higgs boson mass under control hierarchy problem, suggest extensions of the SM. In many SM extensions, such as the supersymmetric model SUSY, the left-right symmetric model, and the little Higgs model, there is a richer Higgs spectrum with additional neutral, charged, and doubly-charged Higgs bosons. All these searches include charge conjugate decays. At the Tevatron, the SM Higgs is mainly produced through gluon fusion with a cross-section of 0. The following subsections describe searches for the SM Higgs in three different production and decay channels. Additional requirements are applied to veto the Drell-Yan and Z events after selection are separated into two classes: The leading background is the SM direct production of $t\bar{t}b\bar{b}$ and $t\bar{t}c\bar{c}$ events. At the Tevatron, the main production mechanism is the pair production: Events with 3 and 4 lepton candidates are treated as independent measurements. No evidence of Higgs boson production is found in the analyzed data, yet. As more data are being collected and more advanced analysis techniques are being developed, by combining the CDF results with those of DO, the Tevatron experiments have the potential to discover SM as well as non-SM Higgs. The transverse plane is perpendicular to the beam line. CDF Collaboration, Phys. Kusakabe et al, <http://arxiv.org/abs/hep-ex/0608003>: The SecVtx algorithm selects jets containing tracks which form a vertex significantly displaced from the point of pp collisions. Lai et al, <http://arxiv.org/abs/hep-ex/0608003>: Baroiant et al, <http://arxiv.org/abs/hep-ex/0608003>: The superscript "OS" stands for opposite-sign dilepton pair, while "SS" stands for same-sign pair.

Chapter 2 : Fermilab Results Change Higgs Mass Estimate | News

Richard E. Hughes, The Ohio State University Higgs Searches in Run II at CDF DPF, 8/00 p. 3 Higgs Production at the Tevatron $gg \rightarrow H$ dominates over all mass ranges, but.

Chapter 3 : Collider Run II Begins at Fermilab | News

The Tevatron. Run II: Status and Results CDF. Top Quark Studies and Higgs Searches. CDF. Run II Top Quark Cross Section: Summary.

Chapter 4 : Search for charged higgs bosons in decays of top quark pairs - INSPIRE-HEP

The Search For The Higgs Boson In The Complete Run II Dataset With CDF Homer Wolfe The Ohio State University On Behalf of the CDF Collaboration Les Rencontres de Physique.

Chapter 5 : Collider Run II Begins at Fermilab | News

SEARCH FOR THE HIGGS BOSON PRODUCED IN ASSOCIATION WITH A WBOSON AT CDF RUN II DISSERTATION Presented in Partial Fulfillment of the Requirements for.

Chapter 6 : Full text of "Search for Higgs at CDF"

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Run II has thus far been a great success and \neq The Search for the Higgs \neq Design the analysis to focus on the sample that is most relevant for Higgs and.

Chapter 7 : Higgs Boson Searches at CDF - Page 4 of 5 - Digital Library

\neq awarded for work on Run II data \neq CDF students received PhD's thus far New particle searches with top quark 19 CDF Combined Higgs search CDF.

Chapter 8 : Tevatron collider yields new results on subatomic matter, forces | News

CDF Higgs Results and Combination Nils Krumnack (Baylor University) Introduction \neq this seminar falls into two parts \neq in the first part I will give an overview of CDF Standard Model.

Chapter 9 : Higgs Boson Searches at CDF - Page 4 of 5 - Digital Library

Perspectives on Top Quark Physics CDF-II MET+Jets $\hat{=}$ Important background for Higgs studies ($H\hat{+}WW$ and $t\hat{t}H$), NP searches.!