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Likelihood Based Opposite Side Lepton and Jet Charge Tagging VIVEK TIWARI, Carnegie-Mellon, CDF COLLABORATION — Using $p\bar{p}$ collision data at $\sqrt{s} = 1.96$ TeV collected with the CDF II experiment at the Fermilab Tevatron collider, we study opposite side *B* flavour tagging using leptons and jets. Various identification quantities for leptons and kinematic properties of jets are combined using likelihood and neural network techniques to find interaction products associated with opposite side B mesons. Using a data sample enriched in semileptonic $B \rightarrow \ell \nu X$ decays, the performance of the opposite side lepton and jet charge tagging algorithms is studied and the effective tagging efficiency $\epsilon D2$ determined.

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