

Abstract Submitted
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Probing Quark Fragmentation with Ds-K Correlations at CDF NI-HARIKA RANJAN, Purdue University, CDF COLLABORATION — High statistics samples of Ds+ and D+ decays have been recorded with the CDF-II detector at the Fermilab Tevatron. To conserve strangeness, prompt Ds+ mesons are expected to be frequently produced in association with K- mesons. The differences between the kinematic distributions of kaons produced in association with Ds+ compared with those produced in association with D+ mesons is sensitive to details of the quark fragmentation process that have not previously been studied directly. An accurate modelling of kaon production in association with heavy quark fragmentation is needed to determine the effectiveness of a “same-side kaon tag” which is expected to provide a powerful means of determining the production flavor of B_s^0 mesons and should significantly improve the sensitivity of the analysis of B_s^0 oscillations at CDF.

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