

Abstract Submitted
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Study of $D \rightarrow K/\pi e \nu_e$ and measurement of $|V_{cs}|$ and $|V_{cd}|$ BO XIN,
Purdue University, CLEO COLLABORATION — Using a 281 pb⁻¹ data sample
comprised of 1.8 million $D\bar{D}$ mesons collected at the $\psi(3770)$ with the CLEO-c
detector, we measure absolute branching fractions as a function of q^2 , the invariant
mass of the $e^+\nu_e$ pair, for $D^0 \rightarrow K^- e^+ \nu_e$, $D^0 \rightarrow \pi^- e^+ \nu_e$, $D^+ \rightarrow K_S^0 e^+ \nu_e$ and $D^+ \rightarrow$
 $\pi^0 e^+ \nu_e$. We measure the absolute magnitudes of the form factors $f_K^+(0)$ and $f_\pi^+(0)$.
Using unquenched lattice QCD calculations of the form factor normalizations we
extract the magnitudes of the CKM matrix elements V_{cs} and V_{cd} . Our measurement
of $|V_{cs}|$ is the most precise direct determination to date. An extension of the analysis
with the ≈ 800 pb⁻¹ complete data set is also discussed.

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