

Exclusive semileptonic $b \rightarrow c$ decays at Belle

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Measurement of the decay $B^0 \rightarrow D^{*-} l^+ \nu$

We present measurements of the branching fraction and of the HQET form factors ρ^2 , R_1 and R_2 for the decay $B^0 \rightarrow D^{*-} l^+ \nu$ using untagged $\Upsilon(4S) \rightarrow B\bar{B}$ events. The Cabibbo-Kobayashi-Maskawa matrix element $|V_{cb}|$ is extracted and a test of the form factor parametrization is presented. The results are based on a large data sample recorded by the Belle detector at the KEKB e^+e^- collider.

Measurement of the decay $B^+ \rightarrow \bar{D}^{*0} l^+ \nu$

The measurement of the decay $B^+ \rightarrow \bar{D}^{*0} l^+ \nu$ does not rely on charged slow pion reconstruction and thus allows us to cross-check measurements of $B^0 \rightarrow D^{*-} l^+ \nu$. We present measurements of the branching fraction and of the HQET form factors ρ^2 , R_1 and R_2 using $\Upsilon(4S) \rightarrow B\bar{B}$ events. The Cabibbo-Kobayashi-Maskawa matrix element $|V_{cb}|$ is extracted. The results are based on a data sample recorded by the Belle detector at the KEKB e^+e^- collider.

Measurement of $B \rightarrow D^{(*)} \tau \nu$ using hadronic tag

We present a measurement of $B \rightarrow D^* \tau \nu$ and $B \rightarrow D \tau \nu$ decays using a large data sample collected near the $\Upsilon(4S)$ resonance with the Belle detector at the KEKB asymmetric energy e^+e^- collider. Events are tagged by fully reconstructing one of the B mesons in hadronic modes. Constraints on theoretical models with a charged Higgs boson are discussed.

Studies of $B^+ \rightarrow \bar{D}^{(*)0} \tau^+ \nu$ with inclusive reconstruction of the accompanying B meson

We present studies of $B^+ \rightarrow \bar{D}^{*0} \tau^+ \nu$ and $B^+ \rightarrow \bar{D}^0 \tau^+ \nu$ decays using a large data sample collected with the Belle detector at the KEKB asymmetric-energy e^+e^- collider. The events are tagged by inclusively reconstructing the accompanying B meson. Measurements of branching fractions and distributions characterizing signal decays are presented.

Primary author: DUNGEL, Wolfgang (Institute for high energy physics, Austrian academy of Sciences)

Presenter: DUNGEL, Wolfgang (Institute for high energy physics, Austrian academy of Sciences)

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