

## **b -> d and other charmless B decays at Belle**

*Saturday, July 18, 2009 9:15 AM (20 minutes)*

Observation of  $B^+ \rightarrow \bar{K}^{*0}(892)K^+$  at Belle

We present a measurement of the branching fraction for the process  $B^+ \rightarrow \bar{K}^{*0}(892)(\rightarrow K^-\pi^+)K^+$  based on a data sample of  $657 \times 10^6 \Upsilon(4S) \rightarrow B\bar{B}$  events collected with the Belle detector at the KEKB  $e^+e^-$  asymmetric-energy collider. A measurement of the charge asymmetry of  $A_{CP}$  for this process is also presented.

Measurement of  $B^0 \rightarrow K^+\pi^-K^-\pi^+$  Decays and Search for  $B^0 \rightarrow K^{*0}\bar{K}^{*0}$  and  $B^0 \rightarrow K^{*0}K^{*0}$

We report on a search for the decay  $B^0 \rightarrow K^{*0}\bar{K}^{*0}$  and  $B^0 \rightarrow K^{*0}K^{*0}$  and other charmless modes with a final  $K^+\pi^-K^-\pi^+$  state. These results are obtained from a data sample containing  $657 \times 10^6 B\bar{B}$  pairs collected with the Belle detector at the KEKB asymmetric-energy  $e^+e^-$  collider.

Search for  $B \rightarrow \phi\pi$  decays at Belle

We search for the charmless decays  $B^+ \rightarrow \phi\pi^+$  and  $B^0 \rightarrow \phi\pi^0$ , which proceed through an external electroweak penguin diagram in the Standard Model. The analysis is based on a data sample of 657 million  $B\bar{B}$  pairs collected at the  $\Upsilon(4S)$  resonance with the Belle detector at the KEKB  $e^+e^-$  storage ring.

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