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**Measurement of the time-dependent CP asymmetry in  $B^0 \rightarrow \pi^+\pi^-$  decays and observation of direct CP violation in the decay  $B^0 \rightarrow K^+\pi^-$**  XUANZHONG LI, Massachusetts, BABAR COLLABORATION — We present a measurement of the time-dependent CP asymmetry in the decay  $B^0 \rightarrow \pi^+\pi^-$  and observation of direct CP violation in the decay  $B^0 \rightarrow K^+\pi^-$ , using data collected with the BaBar detector at the PEP-II asymmetric energy  $e^+e^-$  collider at SLAC.

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