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Search for $D^0 - \overline{D}^0$ mixing using semileptonic decays at Belle URBAN BITENC, BOSTJAN GOLOB, Jozef Stefan Institute, Ljubljana, BELLE COLLABORATION — We report the results of a search for mixing in the neutral D meson system using the semileptonic decay $D^0 \to K^- e^+ \nu$, tagging the D meson flavor at production by the charge of the slow pion in the decay $D^{*+} \to D^0 \pi^+$. The analysis is performed using 253 fb⁻¹ of data recorded by the Belle detector. Background contributions are described using the reconstructed data. We reconstruct the momentum of the final state neutrino by exploiting the detector hermeticity and kinematic constraints.

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