

Phenomenology 2021 Symposium



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Search for heavy neutral lepton production at the NA62 experiment

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Searches for heavy neutral lepton production in $K^+ \rightarrow e^+N$ and $K^+ \rightarrow \mu^+N$ decays using the data set collected by the NA62 experiment at CERN in 2016-18 are presented. Upper limits on the elements of the extended neutrino mixing matrix $|U_{e4}|^2$ and $|U_{\mu 4}|^2$ are established at the levels of 10^{-9} and 10^{-8} , respectively, improving on the earlier searches for heavy neutral lepton production and decays in the kinematically accessible mass range.

Summary

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