

# Search for heavy neutral lepton production at the NA62 experiment

*Tuesday 28 July 2020 20:45 (15 minutes)*

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  $|U_{\mu4}|^2$  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.

## I read the instructions

### Secondary track (number)

03

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