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## New results for searches of exotic decays with NA62 in beam-dump mode

*Tuesday 22 August 2023 17:05 (20 minutes)*

The NA62 experiment at CERN took data in 2016–2018 with the main goal of measuring the  $K^+ \rightarrow \pi^+ \nu \bar{\nu}$  decay. We report on the search for visible decays of exotic mediators from data taken in “beam-dump” mode with the NA62 experiment. The NA62 experiment can be run as a “beam-dump experiment” by removing the Kaon production target and moving the upstream collimators into a “closed” position. More than  $10^{17}$  protons on target have been collected in this way during a week-long data-taking campaign by the NA62 experiment. We report on new results from analysis of this data, with a particular emphasis on Dark Photon and Axion-like particle Models.

### Collaboration / Activity

NA62

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**Session Classification:** Joint T03+T10 Dark Matter + Searches for New Physics

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