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Latest results from NA62

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$K \rightarrow \pi \nu \bar{\nu}$ is one of the theoretically cleanest meson decay where to look for indirect effects of new physics complementary to LHC searches. The NA62 experiment at CERN SPS is designed to measure the branching ratio of the $K^+ \rightarrow \pi^+ \nu \bar{\nu}$ decay with 10% precision. NA62 took data in 2015-2018; the analysis of a partial data set allows to reach the Standard Model sensitivity. The status of the experiments will be reviewed, and prospects will be presented.

Owing to the high beam-energy and a hermetic detector coverage, NA62 also has the opportunity to directly search for a variety of long-lived beyond-the Standard Model particles, such as Axion-like Particles and Dark Photons. In this talk we will review the status of invisible vector boson searches from π^0 decays. The status and prospects of searches for lepton flavour and lepton number violation in kaon decays at the NA62 experiment we also be presented.

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