



# KCETA Colloquium

## Latest measurement of $\mathcal{B}(K^+ \rightarrow \pi^+ \nu \bar{\nu})$ by the NA62 experiment

Thursday, Nov. 6, 2024

Kleiner Hörsaal A (CS) 15:45 - 17:00

Prof. Radoslav Marchevski  
(EPFL)

The  $K^+ \rightarrow \pi^+ \nu \bar{\nu}$  decay is a golden mode for flavour physics. Its branching ratio is predicted with high precision by the Standard Model to be less than  $\mathcal{O}(10^{-10})$ . This decay mode is highly sensitive to indirect effects of new physics up to the highest mass scales.

The NA62 experiment at the CERN SPS is designed to study the  $K^+ \rightarrow \pi^+ \nu \bar{\nu}$  decay, and provided the world's most precise investigation of this decay using 2016-18 data. Building on this success the first results from a significantly improved analysis of new data, taken in 2021-22 after beam-line and detector upgrades, are presented, as well as the combination with the 2016-18 results.



Please note:

The colloquium will also be live-streamed to B401 SR410 (CN).