

# New measurement of the $K^+ \rightarrow \pi^+ \mu^+ \mu^-$ decay at NA62

*Tuesday, July 28, 2020 6:22 PM (15 minutes)*

The flavour-changing neutral current decay  $K^+ \rightarrow \pi^+ \mu^+ \mu^-$  is induced at the one-loop level in the Standard Model, and is well suited to explore its structure and, possibly, its extensions. The NA62 experiment took data in 2016–2018 with the main goal of measuring the  $K^+ \rightarrow \pi^+ \nu \bar{\nu}$  decay. A scaled down di-muon trigger chain was operating along with the main trigger during the whole data taking period resulting in a large sample of about  $3 \times 10^{12}$  kaon decays in the fiducial volume recorded using the di-muon trigger. New results from an analysis of the  $K^+ \rightarrow \pi^+ \mu^+ \mu^-$  decay using this sample will be presented.

## I read the instructions

### Secondary track (number)

03

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