Contribution ID: **395** Type: **Oral**

Analysis of the rare decay K+⟶mu nu mu mu

Wednesday, 17 April 2019 15:00 (15 minutes)

The main goal of the NA62 experiment at CERN is a study of the ultrarare decay K+ ⟶ pi nu nu. The collected statistics allows to analyse other rare decays, in particular, K+⟶ mu nu mu mu. Rare decays make it possible to experimentally investigate one of the aspects of the Standard Model, the chiral perturbative theory (ChPT). ChPT predicts decay probability of K⟶ mu nu mu mu: 1.35 x 10^(-8). This decay channel is also of great interest due to the fact, that it was not experimentally observed, there is only an upper limit < 4.1 x 10^(-7) CL 90%. We present the research methodology, the first results of signal selection and the study of the background sources for the decay.

Primary author: Ms BAEVA, Aigul (JINR,LHEP)

Presenter: Ms BAEVA, Aigul (JINR,LHEP)

Session Classification: High energy physics

Track Classification: High Energy Physics