## Phenomenology 2025 Symposium



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## New Physics from Light Scalars from Rare Kaon Decay

Tuesday 20 May 2025 17:15 (15 minutes)

We introduce and investigate the effects of a light scalar interacting with the short-lived kaon and the  $K_S \rightarrow^{+-}$  decay. We use the results of searches performed at kaon factories as well as the Standard Model predictions for this decay to constrain the couplings of a  $\phi$  particle with a mass m of the order of MeV. We also examine the time evolution of the kaon beams with the full mixing considered and the effect of its lifetime on extractable experimental parameters.

## Mini Symposia (Invited Talks Only)

## Plenary (Invited talks only)

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