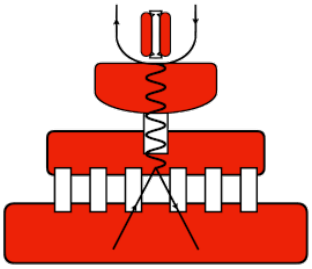

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# First observation and study of the K± ⟶ π±π0e+e− decay with the NA48/2 experiment at CERN

*Tuesday, September 10, 2019 3:15 PM (25 minutes)*

The NA48/2 experiment at CERN reports the first observation of the K± ⟶ π±π0e e− decay from an exposure of 1.7×1011 charged kaon decays recorded in 2003–2004. A sample of 4919 candidates with 4.9% background contamination allows the determination of the branching ratio in the full kinematic region. The study of the kinematic space shows evidence for a structure dependent contribution in agreement with predictions based on chiral perturbation theory. Several P- and CP-violating asymmetries are also evaluated.

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