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## High precision measurement of the form factors of the semileptonic decays K+- -> pi0 l+- nu (Kl3)

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The NA48/2 experiment presents new measurements of the form factors of the semileptonic decays of charged kaons, based on 4.3 million Ke3 and 3.5 million Kmu3 decays, both with negligible background. The result matches the precision of the current world average on the vector and scalar form factors and allows to significantly reduce the form factor uncertainty on |Vus|. In addition, the comparison of both channels sets tight constraints on lepton flavor violation and other possible new physics.

## **Summary**

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