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CP tests at NA48

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We report on measurements of the rare decays K+- -> pi+- e+ e- and
K+- -> pi+- mu+ mu-. The full NA48/2 data set was analyzed, leading
to more than 7200 reconstructed events in the electronic and more than
3000 events in the muonic channel, the latter exceeding the total existing
statistics by a factor of five. For both channels the selected events are almost
background-free. From these events, we have determined the branching
fraction and form factors of K+- -> pi+- e+ e- using different theoretical models.
Our results improve the existing world averages significantly. In addition,
we measured the CP violating asymmetry between K+ and K- in this channel
to be less than a few percent.

The KS –> pipiee decay mode has also been investigated using the data
collected in 2002 by the NA48/1 collaboration. With about 23k signal
events and 59k KL –> pi+ pi- pi0D normalization decays, the
KS –> pipiee branching ratio was determined with respect to the KL one.
This result is also used to set an upper limit on the presence
of E1 direct emission in the decay amplitude. The CP-violating
asymmetry has been measured.

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