

RESULTS FROM  $K_S$  AND NEUTRAL HYPERONS  
DECAYS FROM THE NA48/1 EXPERIMENT  
AT CERN

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S u m m a r y

The NA48/1 experiment employed an intense neutral beam to collect  $K_S$  and neutral hyperon decays. The experiment run in 2000 (accessing only fully neutral final states) and in 2002 (with final states with also charged particles). Overall the experiment has improved the  $K_S$  world statistics by a factor of  $\approx 50$ . In this talk, a precise measurement of the  $K_S \rightarrow \gamma\gamma$  decay rate and the first observation of the decay  $K_S \rightarrow \pi^0\gamma\gamma$  are reported. These decays are interesting in the framework of the chiral perturbation theory, the theory of the strong interaction at low energy.