Kloe results on Φ radiative decays

Kloe Collaboration

The Kloe experiment at the Frascati Φ-Factory DAPHNE has new results on the radiative decays of the Φ resonance into the scalar mesons $f_0(980)$ and $a_0(980)$ and into the pseudoscalar mesons $\eta$ and $\eta'(958)$. They greatly improve on the PDG status of the field.

The scalar mesons $f_0$ and $a_0$ have been detected via the decay modes into $\pi^0\pi^0$ and $\eta\pi^0$ respectively; absolute values of the branching ratios as well fits of the $\pi^0\pi^0$ and $\eta\pi^0$ invariant mass spectra will be presented. The results bear information on the controversial nature of these scalar states (qq, 4q or KK molecule) [1,2].

The $\Phi$ decay into $\eta\gamma$ and $\eta'\gamma$ has been looked for in the same final state of 5 $\gamma'$s which allows us to minimize systematic effects; the ratio of branching ratios is therefore obtained from which a value of the $\eta - \eta'$ mixing angle is derived as well as a limit on the glue content of the $\eta'$ [3].

References