

Hadron physics experiments at the COSY facility

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The COoler-SYnchrotron (COSY) provides intense beams of polarized and phase space cooled proton and deuteron beams with momenta up to 3.8 GeV/c for a wide range of internal and extracted beam experiments. In this talk the recent major results from the various detectors at this facility will be summarized. These include the following: the non-observation of the exotic Theta+ particle, expressed as upper limits of the production cross section; Production of excited hyperons; Studies of eta-nucleus interactions; vector meson (omega and phi) production in pp and pA reactions; and precise measurements of the eta and eta' mass and width, respectively. This discussion will be complemented with an overview of the main detector developments, such as the implementation of double polarization experiments at ANKE, the installation of a large volume straw tube tracker in the TOF experiment, and a first glimpse of data on eta decays from the now fully operational WASA detector at COSY.

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