PION and ETA PHOTOPRODUCTION ON THE PROTON at GRAAL

J.P.Bocquet

Institut des Sciences Nucléaires, 38026 Grenoble, France
e-mail:bocquet@isn.in2p3.fr

The GRAAL (Grenoble Anneau Accélérateur Laser) facility provides a polarized and tagged photon beam (from 500 to 1500 MeV) obtained by Compton scattering of laser light on the high energy (6 GeV) electrons circulating in the ESRF (European Synchrotron Radiation Facility) storage ring located in Grenoble (France). Mesons photoproduction of the nucleon allows to investigate the excited states of the nucleon. The Graal gamma beam is linearly polarized and beam asymmetries have been measured for π°, π^{+} and η photoproduced mesons. The experimental results on beam asymmetries and differential cross-sections are very sensitive to the resonance contributions in these channels. The Graal data and their implication on nucleon resonances will be presented and discussed.