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Measurement of the π^+-meson polarizabilities via the $\gamma p \to \gamma\pi^+ n$ reaction D.L. HORNIDGE, Mount Allison University, Sackville, NB, R. BECK, D. KRAMBRICH, M. ROST, TH. WALCHER, Institut für Kernphysik der Johannes-Gutenberg-Universität Mainz, S.N. CHEREPNYA, L.V. FIL'KOV, V.L. KASHEVAROV, P.N. Lebedev Physics Institute Moscow, I. GILLER, M. MOINESTER, Tel-Aviv University, A2 COLLABORATION, TAPS COLLABORATION — An experiment on the radiative π^+ meson photoproduction from the proton ($\gamma p \to \gamma\pi^+ n$) was carried out at the Mainz Microtron MAMI in the kinematic region 537 MeV $< E_\gamma <$ 817 MeV, $140^\circ \leq \theta^{cm}_{\gamma\gamma'} \leq 180^\circ$. The π^+ meson polarizabilities have been determined from a comparison of the data with the predictions of two different theoretical models. Validity of the models has been verified by comparing the predictions with the present experimental data in the kinematic region where the pion polarizability contribution is negligible and where the difference between the predictions of the two models does not excede 3%. Results will be presented and discussed.

D.L. Hornidge
Mount Allison University, Sackville, NB

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