

SEMINÁŘ OTF ÚJF, ŘEŽ

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**Recent developments in the study of
pion electromagnetic production**

Abstrakt

Recent important developments in the electromagnetic production of pion will be reviewed. Specifically, we will focus on 1. threshold π^0 production, 2. $\Delta(1232)$ -excitation, and 3. excitation of higher N^* resonances. Threshold π^0 production is of interest because it is supposed to be dictated by the chiral symmetry and its dynamical symmetry breaking. Electro-excitation of the $\Delta(1232)$ offers a unique window to study hadron deformation as induced by the color magnetic hyperfine interaction between quarks. Electromagnetic production of pions at energies beyond the first resonance region contains rich information about the higher N^* resonances. A dynamical model which has been developed to deal with these interesting features will be presented.

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A. Cieplý/otf