

# Measurement of $\pi^0\pi^{+/-}$ Photoproduction off the Deuteron and D-butanol targets

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## Collaboration

A2 CB-TAPS and CB-ELSA

## Abstract content

The research work of Nuclear and Particle Physics group at the University of Basel is centered around Hadron Physics sector. Photoproduction of Mesons provides an efficient tool for the study of decays of nucleon resonances and the excitation spectrum of hadrons tells about the internal degrees of freedom. Thus to know the internal structural details of nucleons and mesons, investigation of excited nucleon states via photoproduction of mesons and the modification of the properties of nucleon resonances and mesons are being studied quite extensively.

Our group is involved in some international collaborations among which the research works related to photon induced meson production are carried out in Crystal Ball A2 with MAMI(Mainz) and Crystal Barrel ELSA(Bonn) collaborations.

In the presentation, research involved in the Crystal Ball experiment in MAMI as well as my analysis work including couple of preliminary results in the context of photoproduction of double pions with unpolarized and polarized targets will mainly be discussed.

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