Contribution ID: **48** Type: **not specified**

η' beam asymmetry at threshold using the BGO-OD experi- ment

Tuesday, June 11, 2019 6:00 PM (20 minutes)

The unexpected nodal structure of the beam asymmetry recently reported by the GRAAL collaboration in η' photoproduction very close to threshold could be explained by a previously unobserved very narrow resonance. Therefor, the measurement is important to be independently confirmed.
This possibility is offered by the BGO-OD experiment. It is well suited for the detection of forward going charged particles which in the threshold region of interest allows the identification of the reaction γp → η'p solely based on the proton going in forward direction. This yields unprecedented statistics if in the missing mass analysis of the η' meson the background can be sufficiently well controlled. A linearly polarized photon beam produced via coherent bremsstrahlung off a diamond radiator makes it possible to measure the η' beam asymmetry.
In this talk I will present preliminary results on the determination of the η' beam asymmetry in several energy and angular bins close to threshold.
Supported by DFG (PN 50165297).

Primary author: Mr ALEF, Stefan (Physikalisches Institut, Uni Bonn)

Presenter: Mr ALEF, Stefan (Physikalisches Institut, Uni Bonn)

Session Classification: Parallel Session B

Track Classification: Baryon spectrum through meson photoproduction