



Contribution ID: 44

Type: **not specified**

### **The BGOOD experiment at ELSA and multi-quark structures in the uds-sector \***

The discovery of the X, Y, Z states in the (hidden) charm meson sector first by Belle, and the  $P_C$  baryon states by LHCb revealed the existence of multi-quark objects beyond the simple quark-antiquark or 3-quark valence configurations. If the emergence of such multi-quark structures was a general feature of QCD, then related structures should exhibit in the uds-sector as well. The BGOOD experiment at the ELSA electron accelerator of Bonn University is exactly devoted to investigate such possible baryonic structures in meson photoproduction. Particular attention is paid to threshold effects. I will discuss recent results which include the archetypal meson-baryon 5-quark hyperon  $\Lambda(1405)$ , the hypothesised  $N(2030/2080)$  as the *strange-sector partners of the charm-sector  $P_C(4380/4450)$  pentaquarks*, and possible "hexaquark" di-baryon configurations.

- This project received funding from the DFG (Project no 50165297 and 405882627), from the European Union's Horizon 2020 research and innovation programme under grant agreement No 824093, and from the Land NRW.

**Primary author:** SCHMIEDEN, Hartmut (Universität Bonn, Physikalisches Institut)

**Presenter:** SCHMIEDEN, Hartmut (Universität Bonn, Physikalisches Institut)