



Contribution ID: 1

Type: Poster

## Hyperon forward spin polarizability $\gamma_0$ in baryon chiral perturbation theory

*Thursday, July 2, 2015 1:10 PM (1h 20m)*

We present the calculation of the hyperon forward spin polarizability  $\gamma_0$  using manifestly Lorentz covariant baryon chiral perturbation theory including the intermediate contribution of the isospin-3/2 states. As at the considered order the extraction of  $\gamma_0$  is a pure prediction of chiral perturbation theory and does not depend on renormalization schemes, the obtained values are a good test for this theory. Our results have a very good agreement with the experimental data for nucleons. Therefore we extend our frame to hyperons to give predictions to their  $\gamma_0$  values.

**Primary author:** HILLER BLIN, Astrid (IFIC, University of Valencia)

**Co-authors:** Prof. GUTSCHE, Thomas (University of Tuebingen); Dr LEDWIG, Tim (University of Valencia); Dr LYUBOVITSKIJ, Valeri (University of Tuebingen)

**Presenter:** HILLER BLIN, Astrid (IFIC, University of Valencia)

**Session Classification:** Poster Session

**Track Classification:** Hadron Structure and Meson-Baryon Interaction Working Group