



Contribution ID: 315

Type: **not specified**

## Conformal symmetry and the relations between perturbative contributions to the Bjorken and Ellis-Jaffe sum rule of the polarized DIS

*Thursday, 29 March 2012 09:50 (20 minutes)*

Using operator-product expansion approach for the triangle diagram of Axial-Vector-Vector currents symmetry I derive the singlet variant of the Crewther relation, which is valid in the conformal -invariant limit of perturbative approach. I demonstrate that in the conformal-invariant limit of U(1)-model the non-singlet coefficient function of Bjorken and Ellis-Jaffe sum rule identically coincide with the coefficient function of singlet contribution to Ellis-Jaffe sum rules in all orders of perturbation theory. The discussions of the possible generalizations to the conformal-invariant limit of SU(N<sub>c</sub>) theory is presented.

**Primary author:** KATAEV, A. L. (Institute for Nuclear Research of the Russian Academy of Sciences, Moscow, Russia)

**Presenter:** KATAEV, A. L. (Institute for Nuclear Research of the Russian Academy of Sciences, Moscow, Russia)

**Session Classification:** Spin physics

**Track Classification:** Spin physics