



Contribution ID: 108

Type: not specified

## On the Dynamical Origin of Proton Angular Momentum

*Tuesday, 12 December 2017 16:15 (25 minutes)*

The quark orbital angular momentum component of the proton spin,  $L_q$ , can be defined in QCD both as the integral of a Wigner phase space distribution weighing the cross product of the quark's transverse position and momentum, and in terms of a twist-three Generalized Parton Distribution (GPD). I will present results on the link between the two definitions, which reflects their dependence on partonic intrinsic transverse momentum. Connecting the definitions provides the key for correlating direct experimental determinations of  $L_q$  in both nucleons and atomic nuclei, with ab-initio QCD calculations.

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**Session Classification:** Session II-c