Contribution ID: **102** Type: **not specified**

# Nonperturbative structure of the transversely projected quark-gluon vertex

In this work, we study the quark-gluon vertex in the context of unquenched QCD with two degenerate light dynamical quarks in the Landau gauge. We determine the eight form factors of the transversely projected quark-gluon vertex in general kinematics by solving its Schwinger-Dyson equation, derived from the 3PI effective action formalism. For the analysis, we employ as input the lattice data for the gluon and quark propagators, as well as for the three-gluon vertex. The classical form factor was decoupled and solved iteratively, revealing a significant angular dependence and showing excellent agreement with recent lattice data in the soft-gluon configuration. The remaining form factors are computed through a single integration, confirming a clear hierarchy consistent with previous results.

**Author:** LINHARES, Gustavo (University of Campinas - Unicamp)

**Presenter:** LINHARES, Gustavo (University of Campinas - Unicamp)