## Joint International Workshop on Hadron Structure and Spectroscopy (IWHSS 2025) and the QCD Structure of the Nucleon (QCD-N'25)



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## The nonlocal vector current and its relation to the trace anomaly

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It is a well established fact the connection between the unpolarized GPDs and the energy-momentum tensor. In fact, these GPDs provide access to the gravitational form factors and, consequently, to the trace of the energy-momentum tensor and its anomaly. With this talk, we will show new perturbative results regarding the matrix element of the vector current for on-shell gluons and establish its relation to the energy-momentum tensor and its trace. We also elaborate on the relation of our study to recent discussions about potential anomaly contributions in deeply virtual Compton scattering

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