

Equivalence principle and shear in exclusive and inclusive processes

The structures related to shear and shear viscosity may appear in the expansion of energy-momentum tensor (EMT) in various processes. Such terms in various channels may be related either to naive T-oddness (like for Single Spin Asymmetries) or exotic quantum numbers. Their presence is constrained by the equivalence principle (EP) which holds exactly (in the forward limit) in the case of conserved EMT and approximately (justifying the Extension of EP) for the contributions of separate quarks and gluons.

The approximate validity of ExEP may be related to smallness of shear viscosity observed in various theoretical approaches. The relevant observables in exclusive and inclusive hadronic processes as well as in Heavy-Ion Collisions are discussed.

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