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Energy flow within jets in JEWEL simulations

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Jets are excellent probes for the study of the deconfined matter formed in heavy ion collisions. In particular, jet substructure measurements can help us understand the interaction dynamics of high-energy partons with the quark-gluon plasma. We introduce a new infrared and collinear safe observable: jet energy flow measurements using jets reconstructed with different resolution parameters R . These measurements can help us gauge the competition between the dependence of energy loss on the opening angle of the shower on the one hand and the generation of large-angle fragments by radiative energy loss which give opposite trends for the R -dependence of the nuclear modification factor. In this poster we present a first measurement of jet energy flow in JEWEL simulations, and highlight its sensitivity to jet energy loss and medium recoil effects.

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