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# $R$-dependence of jet observables with JEWEL+v-USPhydro

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The $R$-dependence of jet observables provides a new tool in understanding the interplay between the jet energy-loss mechanism and medium response in heavy-ion collisions. We have coupled the Monte Carlo event generators JEWEL and PYTHIA, with initial conditions from the TRENTo and the state-of-the-art (2+1)D v-USPhydro, for the simulation of jet quenching phenomena in a more realistic medium formed in lead-lead collisions at LHC energy scales.

In this work, we present one of the first studies of the jet nuclear modification $R_{AA}$ and anisotropic flow coefficients $v_{n=2,3}$ as a function of the jet cone radius $R$, in the context of anti-$k_T$ jets, in addition to jet shape observables. The calculations indicate the impacts of the hydrodynamic evolution and weakly-coupled medium response, given by recoils, on the distributions. Results are compared to experimental data in a wide range of jet $p_T$ and collision centrality, and displayed along with large jets ($R \geq 0.6$) predictions.

## Experiment/Theory

Theory/Phenomenology

## Affiliation

University of São Paulo (USP), University of Illinois Urbana-Champaign

**Hauptautoren:** Herr BARRETO DE OLIVEIRA CAMPOS, Leonardo (University of São Paulo (USP)); DE MORAES CANEDO, Fabio (University of São Paulo (USP)); M. M. PAULINO, Maria (University of São Paulo (USP)); MUNHOZ, Marcelo (University of São Paulo (USP)); Dr. NORONHA, Jorge (University of Illinois Urbana-Champaign ); Dr. NORONHA-HOSTLER, Jacquelyn (University of Illinois Urbana Champaign)

**Vortragende(r):** Herr BARRETO DE OLIVEIRA CAMPOS, Leonardo (University of São Paulo (USP))

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