

# 10th International Conference on Hard and Electromagnetic Probes of High-Energy Nuclear Collisions



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## A study of Jet Quenching properties using JEWEL framework coupled with v-USPhydro for hydrodynamic simulation along TRENTo and MC-KLN initial conditions

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High energy partons has been a useful tool to study the hot and dense matter produced in heavy-ion collisions. To this end, it has been shown that is important to incorporate the most realistic description of the Quark Gluon Plasma using relativistic hydrodynamics in order to study many properties at high  $p_T$ . Therefore, in this work we couple a modified JEWEL code to event-by-event relativistic hydrodynamics (v-USPhydro). Here we compare two different event-by-event initial conditions TRENTo and mckln coupled to a full 2+1 hydrodynamic model to smooth Glauber initial conditions with only a Bjorken longitudinal expansion. The jet  $v_2$  and  $v_3$ , substructure, and shape variables are calculated for LHC PbPb 2.76TeV collisions. We find that  $v_n$ 's have the largest influence from a realistic medium.

### Collaboration (if applicable)

### Track

Jets and High Momentum Hadrons

### Contribution type

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