

Abstract Submitted
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Optimization of Jet Finding Algorithm in High energy heavy ion collisions with ALICE at LHC DOUSATSU SAKATA, University of Tsukuba and Junior Research Associate of RIKEN Nishina Center, TAKUMA HORAGUCHI, University of Tsukuba and Research Fellow of the Japan Society for the Promotion of Science, ALICE COLLABORATION — The A Large Ion Collider Experiment (ALICE) is to study physics of strongly interacting matter and the quark-gluon plasma (QGP) in heavy ion collisions at Large Hadron Collider (LHC). Production of deconfined partonic phase has been basically proven at the BNL-RHIC, via high p_t jet suppression. LHC will provide a high density, high temperature and longer life time matter comparing with BNL-RHIC, therefore strong suppression and modification in jet production will be expected. A unified picture of jet quenching scenario is awaited at LHC-ALICE in wide energy range and various heavy ion collisions. However, jet finding in heavy ion collisions will be difficult at LHC due to the high multiplicity comparing with BNL-RHIC. Jet finding algorithm study for high multiplicity heavy ion collisions at LHC is so important. In this talk, we will present the results of comparison with some jet finding algorithms and study of the optimization of the algorithm for heavy ion collisions at LHC-ALICE.

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