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Recent jet measurements in STAR and its future plan

Jet is produced in the early stage of heavy-ion and nucleon-nucleon collisions from hard-scattered patrons of the incoming beams. The property of hot-dense QCD matter, known as Quark-Gluon Plasma (QGP), can be inferred by studying the modified jet properties in heavy-ion collisions with respect to nucleon-nucleon collisions. Besides, we can investigate the QCD parton shower in vacuum by analyzing jet-evolution in p+p collision. Recently, the STAR experiment reports both Au+Au and p+p collisions jet result in this direction. I plan to discuss the nuclear modification factor for inclusive jet, direct photon + jet, and hadron+jet in central Au+Au collisions. Results on the jet substructure and jet mass measurement in p+p collisions are discussed. Finally, I compile the forthcoming precision jet measurements in STAR with extended kinematic coverage.

Primary author: Prof. SAHOO, Nihar (Shandong University)

Presenter: Prof. SAHOO, Nihar (Shandong University)

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