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Feasibility of Jet Shape Measurements at RHIC SEAN JEFFAS, State Univ of NY- Stony Brook, STAR COLLABORATION — One of the current main questions in nuclear physics is determining the properties of the Quark Gluon Plasma (QGP). One method of studying the properties of the QGP used at the Compact Muon Solenoid (CMS) is measuring the jet shapes, defined as the fractional transverse momentum radial distribution, in a heavy ion collision at a center of mass energy of 2.76 TeV. By comparing how these jets change in the presence of the QGP we can find out more about its properties. This method would be useful to measure the QGP's properties at the Relativistic Heavy Ion Collider (RHIC) at a center of mass energy of 200 GeV. Therefore simulations have been run at RHIC energies and STAR detector specifications to see if jet shape measurements would be feasible.

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