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Hadronic Calorimeter Development for a New Jet Detector at RHIC EDOUARD KISTENEV, BNL — Brookhaven National Laboratory is planning a new jet, large-acceptance jet detector at RHIC, optimized to make best use of the beams delivered by RHIC to study the properties of the Quark Gluon Plasma via a comprehensive program of jet probes, direct photon tagged jets, and heavy flavor. The calorimetry in this new jet detector is the most important single tool for electron, photon, and neutral pion measurements and drives overall detector dimensions and cost. We report here on a development of a new novel and compact calorimeter system which is comprised of a full acceptance electromagnetic calorimeter complemented by a coarse and relatively thin (∼1 Labs) front section of hadronic calorimetry inside superconducting solenoid, and a deep (∼4Labs) outer calorimeter which also serves as a flux return for the detector solenoid. Priority in this talk will be given to the hadronic sections and sensing elements (scintillating tiles), which penetrate the whole depth of iron and varying in size from ∼20cm in the inner to more then 100cm in outer sections. In-situ detector calibration and triggering will also be discussed.

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