Abstract Submitted for the DNP08 Meeting of The American Physical Society

Nose-Cone Calorimeter: upgrade of PHENIX detector ONDREJ CHVALA, UC Riverside — PHENIX experiment at RHIC is efficient at measuring processes involving rare probes, but has limited acceptance in azimuth and pseudorapidity (η). The Nose Cone Calorimeter (NCC), a W-Si sampling calorimeter in the region of $0.9 < \eta < 3$, is one of the upgrades which will dramatically increase coverage in azimuth and pseudorapidity. The NCC will expand PHENIX's precision measurements of electromagnetic probes in η , reconstruct jets, and enhance triggering capabilities. It will significantly contribute to measurements of γ -jets, quarkonia, and low-x nuclear structure functions. Details of the detector design, performance, and a sample of the physics topics which will benefit from the NCC, will be discussed.

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Date submitted: 02 Jul 2008

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