Abstract Submitted
for the APR12 Meeting of
The American Physical Society

VHMPID: A Proposed New Detector for the ALICE Experiment[1] KAREN COSSYLEON, EDMUNDO GARCIA, Chicago State University, VHMPID COLLABORATION — CERN (European Center for Nuclear Research) is a global laboratory that studies proton and heavy ion collisions at the Large Hadron Collider (LHC). ALICE (A Large Ion Collider Experiment) is one of four large experiments being of the LHC. ALICE is dedicated to the study of proton-proton collisions and the transition of matter to Quark Gluon Plasma in heavy ion collisions. The Very High Momentum Particle Identification Detector (VHMPID) is a proposed upgrade to the ALICE experiment. This detector performs charged hadron identification on a track-by-track basis in the 10 GeV/c $<$ p $<$ 25 GeV/c momentum range and provides ALICE with new opportunities to study parton-medium interactions at LHC energies. This capability will be unique to all LHC experiments and it builds on the existing particle identification in the lower momentum range. In this talk, we will describe the detector, some results from beam tests performed at CERN in June of last year, the physics possibilities that this detector will bring to the ALICE experiment, and the status of the project.

[1]Research funded by NSF grant PHY-0968903

Edmundo Garcia-Solis
Chicago State University

Date submitted: 06 Jan 2012 Electronic form version 1.4