

Abstract Submitted  
for the APR05 Meeting of  
The American Physical Society

**GEANT4 code for Simulation of RPC for Resistive Plate Chamber Detector** M. JAMIL, J.T. RHEE, Institute for Advanced Physics, Konkuk University, Korea — For more than 20 years nuclear Physicists have used the GEANT code to simulate particle-matter interaction. In most recent version, GEANT4 is a toolkit for simulating the passage of particles through matter, which contains a complete range of functionality including tracking, geometry, physics models, and hits. In this article, the first attempt to use GEANT4 to model a double-gap Resistive Plate Chamber (RPC) with its improved efficiency is presented. The efficiencies of the double-gap RPC has been evaluated as a function of gamma energy range 0.005-1000 MeV. A Comparison to available previous simulation work is also performed, which indicates the performance of GEANT4 is better than GEANT3.

M. Jamil  
Institute for Advanced Physics, Konkuk University, Korea

Date submitted: 16 Feb 2005

Electronic form version 1.4