

Geant4 – a general purpose simulation toolkit

Geant4 is a software toolkit for the simulation of the passage of particles through matter. It is used very frequently in a large variety of application domains, including high energy, nuclear and accelerator physics, space science, medical physics and radiation protection. It allows to create almost arbitrary complex volumes, and to transport any particle through virtually any medium. In addition, the different physical processes defining the transport can be easily activated and deactivated. A general overview concerning the code and its capabilities will be presented. As an example concerning low background applications, we will show the performance of Geant4 when calculating the neutron production induced by radiogenic alpha-decay.

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