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CASCADE/PC

Monte Carlo Simulation of the Transport of High Energy Electrons and Photons in Matter for PC

CASCADE/PC is that can calculate the transport of an electron-photon cascade in a homogeneous medium to compute differential flux densities with separate scoring of positrons and electrons. Allowance is taken for the density on the stopping power and for annihilation in flight. Output also includes energy deposited between consecutive boundaries. The usual low energy cutoffs are 0.1 MeV and 2 MeV for photons and electrons respectively.

The Monte Carlo method is used incorporating statistical estimation. Changes in direction are assumed to be caused only by Compton scattering, and only the longitudinal development of the showers are treated. Electrons are allowed to undergo bremsstrahlung and collision interactions. Photons undergo pair production, photoelectric absorption, and Compton scattering.

The output of **CASCADE/PC** consists of either differential or integral fluxes (or current) of negatrons, positrons, and photons at each of several boundaries for various energy values, as well as the energy deposited between consecutive boundaries.

We at Galaxy Advanced Engineering, Inc. (**GAE**) have taken the steps to produce the PC version i.e. CASCADE/PC. Currently the program is operating on PC or 100% compatibles under PC/DOS or PC/Windows95/98/2000/XP/ME and NT operating system. To obtain the code and more information, please contact our company or call us at 650-302-3993.