

EE582 Nanoelectronics
Final Project: Section 1
(Assigned: April 11, 2008)

The initial step in running a Monte Carlo simulation requires the coordinates and velocities of the electrons. Assuming a Maxwell-Boltzmann distribution for the energies of the electrons at room temperature, use the rejection approach discussed in class to obtain the initial velocities of a system of 10,000 atoms. Assume three dimensional density of states as discussed in class. You will need a random number generator. This was provided to you in class.

Note:

The electron distribution in carbon nanotubes will involve one dimensional density of states instead of the three dimensional density of states discussed in class.