

In the name of God

Department of Physics  
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COMPUTATIONAL PHYSICS

Exercise Set 3

(Date Due: 1394/12/20)

1. Compute the PDF of Random generator of computer.
2. Generate 1000 particles in a box containing the velocity corresponds to Maxwell-Boltzmann PDF.
3. Using simple method for generating random number with Gaussian pdf, make such data.
4. Using data "*marks.txt*" and compute the PDF of these data sets. Then use a gaussian Kernel to smooth it. Use various values of  $\sigma$  for your kernel.

Good luck, Movahed

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