PHYSICS 573: NUMERICAL METHODS

PHYSICS 643: COMPUTATIONAL PHYSICS

HOMEWORK ASSIGNMENT 2

Due: Feb. 8, 2022

- Read *NR* §4.1 – 4.5.
- Select some particular integral that arises in physics and very briefly describe the physics application in a README file. Prepare a C or C++ program that numerically integrates that integral and runs on ISAAC. As usual from now on, save your README, program source code file, and your program output file on ISAAC in the subdirectory $HOME/p643/outbox/home2. For an extra challenge, assess the precision of your integral.
- Please, be sure to follow the general course homework guidelines listed at the end of homework assignment 3.
- Use GNUPLOT to plot the integrand and save a copy of your input commands and a copy of the GNUPLOT graphic output file on ISAAC at $HOME/p643/outbox/home2.   For instance, make a plot of the original curve you integrated above.

Assignments are posted at our Instructure Canvas course site https://utk.instructure.com. Other information concerning this class is available at https://sites.google.com/site/utkp643/.

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