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Project: Project 9 Numerical Simulation of Quantum Mechanics

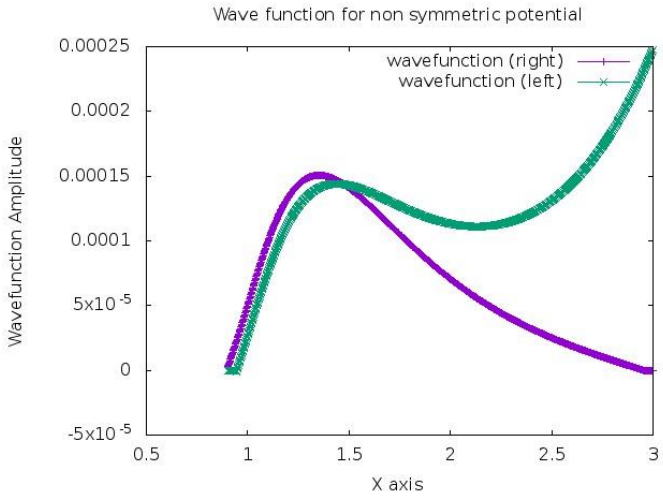
Goals 3 weeks: Implement the matching method and solve for the LJ potential as well as the case where the potential has a slight potential step around $x = 0$.

Note: Goals not reached, implemented matching method, and made functions to scale it, did not get it to solve for correct energies.

Referenced materials:
Computational Physics, N.J. Giordano and H. Nakanishi, 2nd edition

Summary:
Hit a road block while trying to solve the wave equation from either end (due to using different step sizes in the potential function and the wave functions.

Function made so scaling is hard.



Goals for next week: solve for the LJ potential as well as the case where the potential has a slight potential step around $x = 0$, and finish off anything still left to do as well as refine code and get rid of excess code, comment uncommented code, and reduce the number of separate files, make a file road map, essentially make file structure better.