

# Computational Physics Project 2: Time Independent Schrodinger Equation

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## Solving the TISE

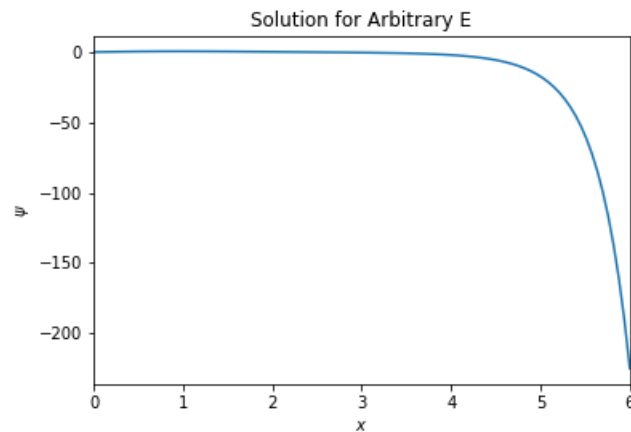


Figure 1: Solution to TISE using and arbitrary guess of  $E = 2$

**Root Finding**

**Normalization**

**Analytical Solution**

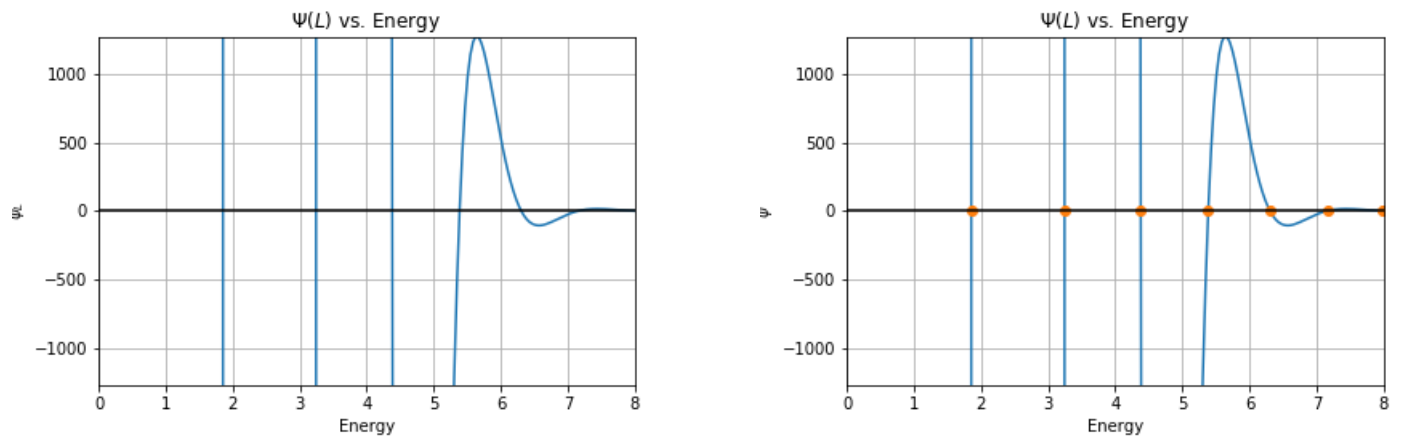


Figure 2: Solution at  $L$  as function of energy. Original plot is shown on left, and plot after finding roots is shown on right.

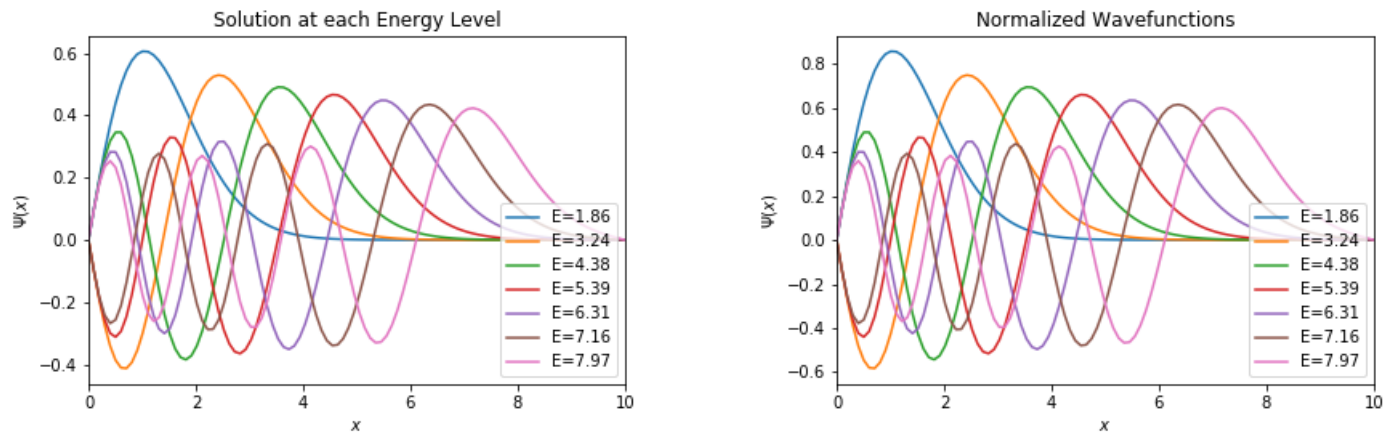


Figure 3:

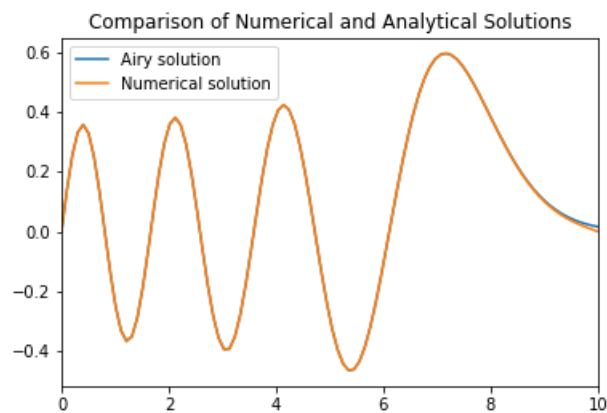


Figure 4: Numerical solution plotted with Airy function solution for  $n = 7$