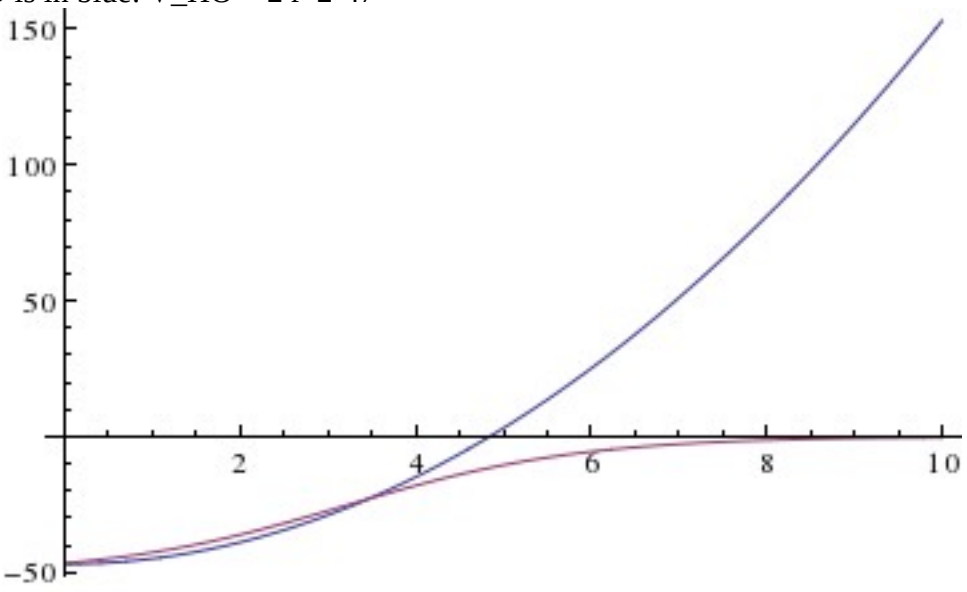
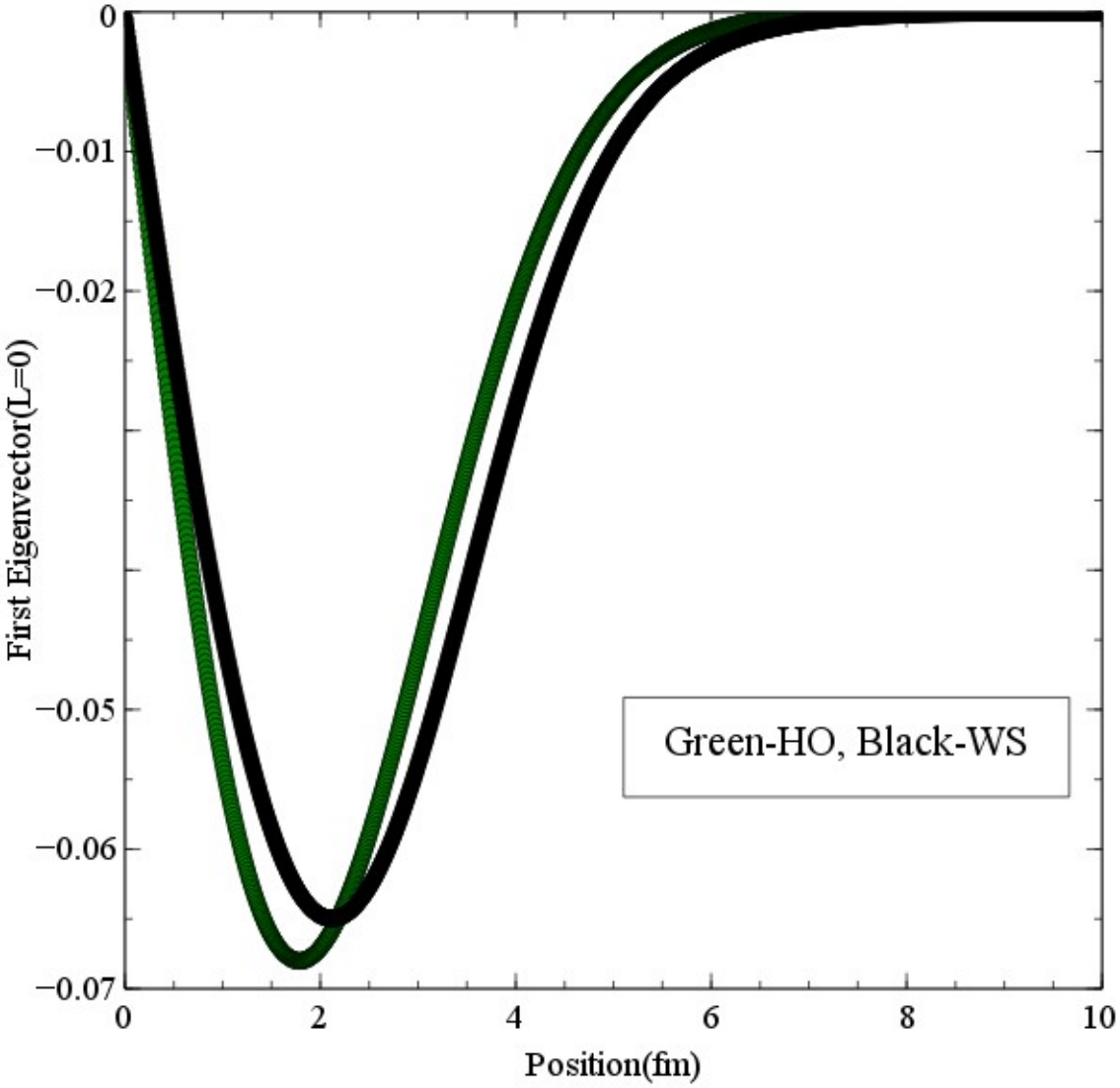
Potentials: HO is in blue: V_HO = 2 r^2-47

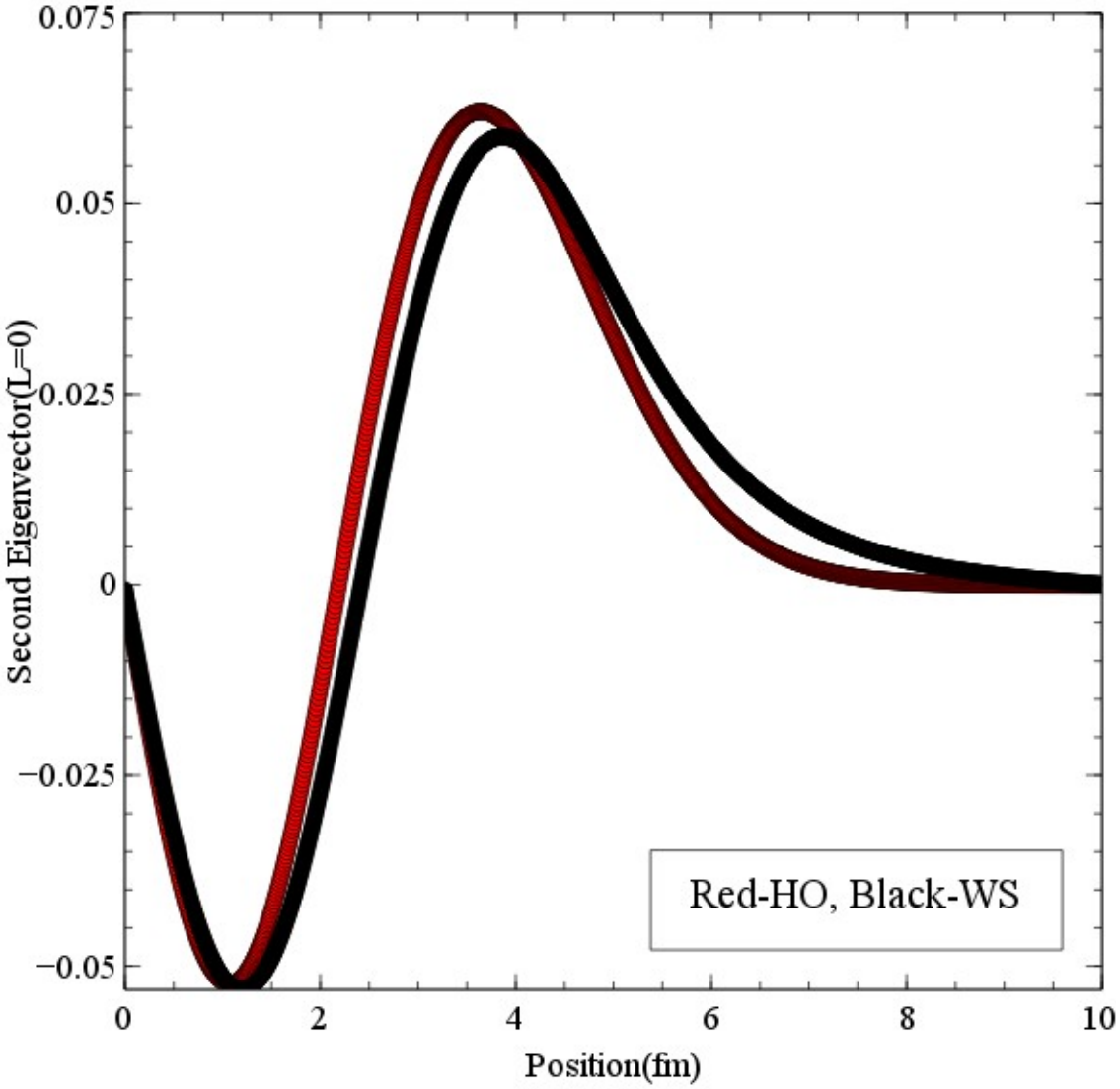


DIAGONALIZATION

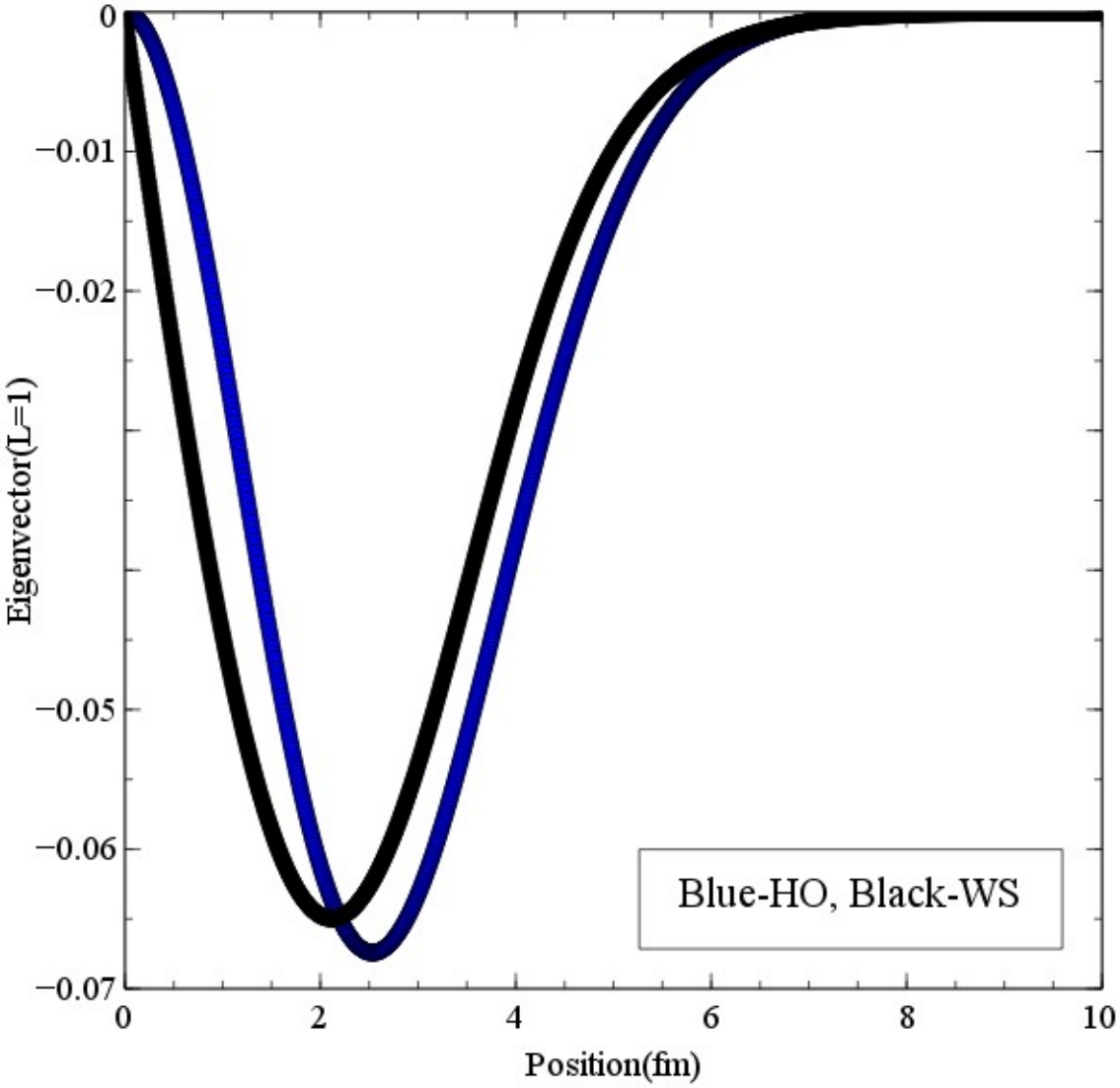
For A=16,

L=0, we get two bound states at energies=-31.11 and -4.02 MeV

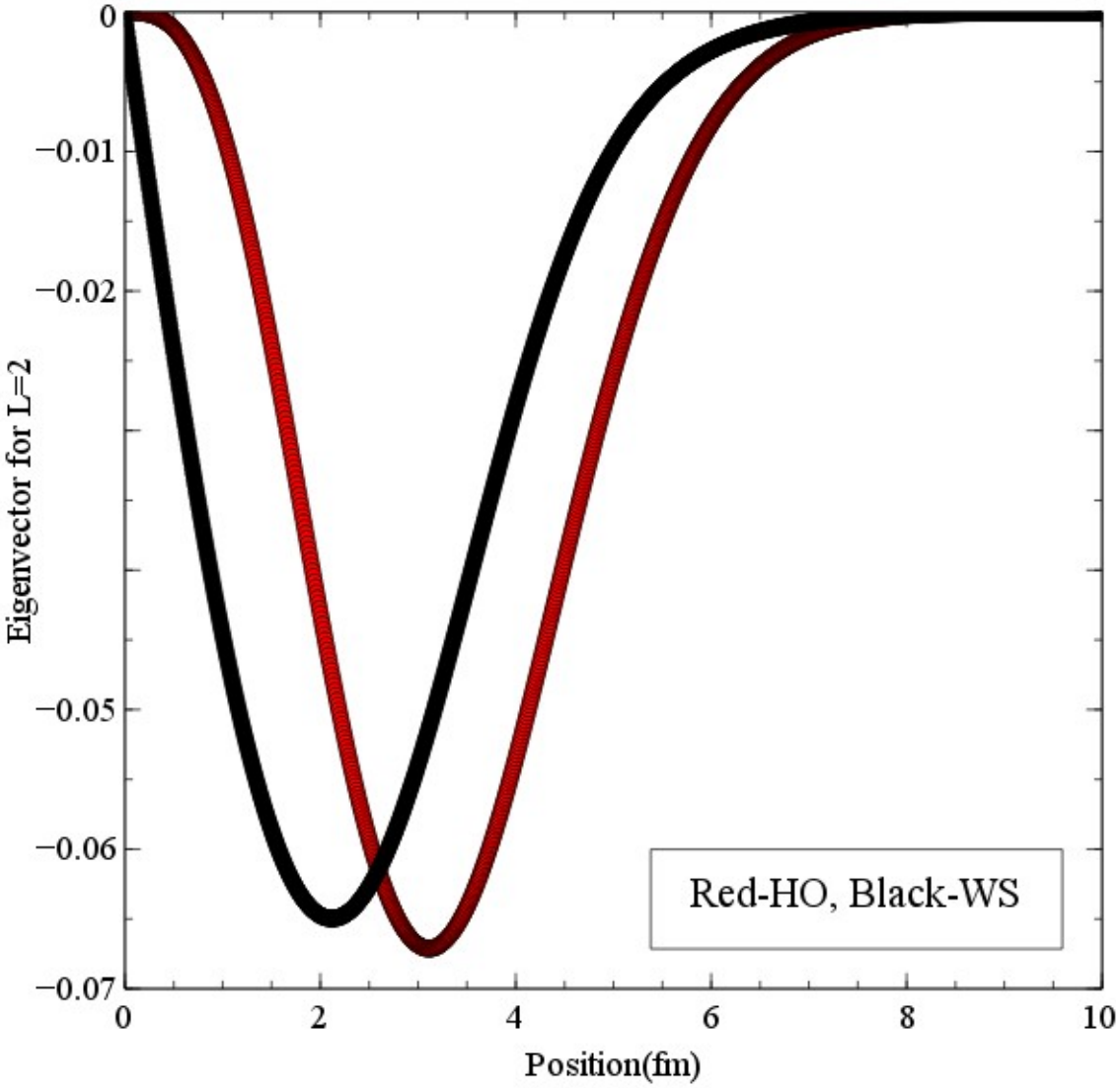

0
−0.01
−0.02
−0.05
−0.06
−0.07
First Eigenvector(L=0)
0
2
4
6
8
10
Position(fm)
Green-HO, Black-WS



For L=1, we get one bound state at -16.92 MeV



For L=2, we get one bound state at -3.22 MeV


0
−0.01
−0.02
−0.05
−0.06
−0.07
Eigenvector for L=2
0
2
4
6
8
10
Position(fm)
Red-HO, Black-WS