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**Dirac Delta Function Potentials**

**Lauren Dalbey**

**Advisor: Dr. Zenaida Uy**

The purpose of this research is to find the eigen-functions and bound state energies of a particle subject to a potential consisting of a series of attractive Dirac delta-functions. I started with a symmetric single Dirac delta-function, $V\left(x\right)=V\_{o}δ\left(x\right)$ and found the bound state energy$ E=\left(-\frac{mV\_{o}^{2}}{2ℏ^{2}}\right) $and the wave function $Ψ\left(x\right)=\sqrt{k}e^{-k(x)}. $I then considered three delta functions that are symmetrically located with respect to the origin. I considered even and odd solutions separately. Finally, I discussed the quintuple delta functions, again considering the even and odd solutions separately. For the even and odd solutions the bound state energies are found numerically.