

Physics 7502: Homework Set No. 9

Due date: Tuesday, March 29, 2016, 5:00pm
in PRB M2039 (Bowen Shi's office)

Total point value of set: 50 points

Problem 1 (50 pts.):

An electron is in the ground state of a three-dimensional square well potential of depth V_0 and radius a . A uniform electric field $\mathcal{E} \cos(\omega t)$ is applied to the electron. Calculate and plot the rate of ionization of the electron as a function of frequency ω .