Source: KBPhysicsMasterIndex

1 | Nuclear Physics

First of all, recall KBhPHYS201ColoumbsLaw. Given the force between two particles is $\frac{kQ^2}{R^2}$, we could hand-wavily calculate the *work* between two particles if we know how much they travel near/far from each other. Through this, we could show that nuclear forces (through nuclear distance, proton=>electron) are much larger than that of the chemical forces (atom/atom, electron=>electron).

#compilefromnote

1.1 | Radioactivity

Radiation is the emition of waves — lights, heat, etc. etc. We call something “radioactive” if it emits ionizing radiation: that it has enough energy to liberate an electron from an atom.

1.1.1 | Geiger Counter

#inserthowgeigercountersowrk

Because of the fact that Geiger counters require time to discharge, there is a certain rate called “dead time”