Recitation #1
Quantum 522

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1. The typical binding energy/nucleon is $\sim$ 8MeV. Compare the Coulomb repulsion energy between two protons inside a nucleus to this number.

2. Up to a normalization constant, obtain the radial wave function R_{21} from the recursion relation for $F(\rho)$

$$\frac{C_{k+1}}{C_k} = \frac{-e^2\lambda + 2(k+\ell+1)}{(k+\ell+2)(k_\ell+1) - \ell(\ell+1}$$

Recall that

$$\rho = r\sqrt{\frac{2\mu|E|}{\hbar^2}}$$