2021 - PHY 981 - Homework set 8 (due Mar 14)

1. **link to lecture notes**
   link to nushellx.zip
   link to toi.zip link to mingw-w64.zip

2. **Read Chapters 18-19.**

3. **Calculate the magnetic moments for ^{17}O and ^{17}F. Compare to experiment.**

4. **Calculate the quadrupole moments for ^{17}O and ^{17}F. Use harmonic oscilaltor-radial wave functions with $\hbar\omega = 14$ MeV. Compare to experiment.**

5. **Calculate the quadrupole moments for ^{17}O and ^{17}F. Use Woods-Saxon radial matrix elements given in the output of wspot.**

6. **Calculate the quadrupole moments for ^{17}O and ^{17}F. Use radial matrix elements given in the output of dens with the Skyrme skx EDF potential.**

7. **Obtain the values of c in Eq. 19.46 from the Fermi gas model, for symmetric nuclear matter, for neutron matter and for the symmetry enregy.**