

Homework due Friday, September 1 at 4 p.m. in my box outside Galileo 104.

### Reading

- Read *carefully* through §1.1 – 1.4 of Townsend. Bring questions to class Thursday.

### Problems

1. Townsend problem 1.1. Hints: You can look up the magnetic moment of the electron. You will want to look this up and the Boltzmann constant in cgs units, where energy is in ergs, magnetic field in gauss, and lengths in centimeters. Relative to SI units,

$$1 \text{ erg} = 10^{-7} \text{ joules}$$

$$1 \text{ gauss} = 10^{-4} \text{ tesla.}$$