Due date: Wednesday, Nov. 28

Griffiths reading: 5.1 This is a light homework because of the Thanksgiving weekend.

There will be a quiz in class on Thursday Nov. 29, covering Sec. 4.4.1 of the text. The quiz will cover material similar to the Examples or Problems in that section or HW#9.1-3.

1. [5 points] Griffiths 5.3 (Thomson measurement of $q/m$).

2. [5 points] Griffiths 5.4 (force on square current loop).

3. [5 points] Griffiths 5.6 (surface and volume currents).

4. [5 points] A constant current $I$ circulates counterclockwise around a wire loop in the shape of a triangle, lying in $x$-$y$ plane, with vertices at the points $(0,0,0)$, $(a,0,0)$, and $(0,a,0)$. Show that the total force on the loop is zero in the presence of a constant magnetic field $\mathbf{B} = B_0 \hat{z}$.