Due date: Wednesday, Feb. 20

Griffiths reading: 7.3.4; skim 7.3.5-6; read 8.1-2

Note: The first hour exam will be in class on Wednesday Feb. 27, and will cover the material up to the end of Ch. 7.

1. [5 points] Griffiths 7.36 (ratio of $I_d$ to $I$ for coaxial cable).

2. [6 points] Griffiths 7.64 (duality transformation of extended Maxwell’s equations).  
   Do this problem only for the case of $\alpha = 90^\circ$: $E' = cB$, $cB' = -E$, etc.

   Do only for coaxial cable of Example 7.13.  You do not have to discuss the case of Prob. 7.62.

4. [5 points] Griffiths 8.2 (revisit charging capacitor).  
   You can use the results in the solution to Prob. 7.34 (HW Problem 3.5).  Do parts (a) and (b); then for (c), I am asking for only a qualitative answer: is the energy flux in the right direction to account for the sign of the change of the field energy in the gap?