

Massachusetts Institute of Technology
Department of Physics

Physics 8.07

Fall 2005

Problem Set #11
Due at 4pm Fri, December 9, 2005

1. **Griffiths Problem 10.25 (p. 442)**

2. **Griffiths Problem 11.4 (p. 450)**

Instead of deriving the fields by superposition, start from

$$\vec{E}_{\text{rad}} = \frac{\mu_0}{4\pi r} \hat{r} \times \left[\hat{r} \times \frac{d^2 \vec{p}}{dt^2}(t_r) \right], \quad \vec{B}_{\text{rad}} = \frac{1}{c} \hat{r} \times \vec{E}_{\text{rad}}.$$

3. **Griffiths Problem 11.5 (p. 454)**

4. **Griffiths Problem 11.21 (p. 473)**

5. **Griffiths Problem 11.23 (p. 474)**