

For: Thursdays, April 13, April 20, 2006

Remember, you can volunteer to explain any of these at the board. You don't need to work them all out, these are the problems most closely related to the recent lectures.

Problems in Jackson's 3rd edition:

- 14.4 Time-averaged power radiated for simple sinusoidal motions
- 14.5 Radiation by a nonrelativistic particle making a head-on collision
- 14.7ab Nonrelativistic collision at impact parameter b , on a Coulomb potential
- 14.8 Relativistic collision at impact parameter b , on a Coulomb potential
- 14.9 Particle performing cyclotron motion in a magnetic induction B
- 14.11 Instantaneous radiation by particle moving in arbitrary applied EM fields
- 14.12 Instantaneous radiation by particle undergoing simple harmonic motion
- 14.13 Power per unit solid angle, for each frequency harmonic, for periodic motion
- 14.14 $dP_m/d\Omega$ for simple harmonic (periodic!) motion
- 14.15 $dP_m/d\Omega$ for uniform circular (periodic!) motion