

Electrodynamics II

Problems #9: Relativistic properties of EM fields.

KSU

For: Thursday, March 30, 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:

12.8 Hidden momentum in electromagnetic problems

12.13 Darwin Lagrangian for two charges in center of mass frame

12.14 Alternative Lagrangian density for electromagnetic fields

12.19 Covariant description of conservation laws for EM fields