

LESSON 11 – MAXWELL STRESS TENSOR, CONSERVATION OF MOMENTUM

LEARNING OBJECTIVE:

Determine how momentum is conserved in electrodynamics

- 1) In terms of momentum, describe what each of the three terms in Equation 8.28 represents.
- 2) Study Example 8.3. How does one determine the electric and magnetic fields of the coaxial cable? In other words, what law would you use, what example problem would you refer to, to get the equation for each of the fields?
- 3) Describe the general process for determine the electromagnetic momentum stored in electric and magnetic fields.

4) What did you find difficult or confusing in the pre-class work? If nothing was difficult or confusing, tell me what you found most interesting. Please be as specific as possible.

5) Document whatever help you received on the preclass work.