



Electromagnetism 3

Problem Set 6

Relativistic Electrodynamics

Department of Physics, Sharif University of Technology.

Due Date: 24th December 2024

1 Relativistic Charge Conservation

Problem 5 Ch.8 of Wald 2022.

2 Relativistic Lienard-Wiechert

Problem 11 Ch.8 of Wald 2022.

3 Relativistic Ohm's Law

Problems 11.16 of Jackson 1999.

4 Alternative Lagrangian Density for Electromagnetic Fields

Problem 12.14 of Jackson 1999.

5 Massive Photon (Proca) Lagrangian Density

Problem 12.16 of Jackson 1999.