

1. Relativity

D.J. Griffiths, *Introduction to Electrodynamics*, 3rd international edition, Prentice Hall, 2003

- (a) *Inertial systems*, problem **12.1**, page 482.
- (b) *Relativistic pursuit of outlaws*, problem **12.4**, page 483.
- (c) *Time dilation*, problem **12.8**, page 489.
- (d) *Lorentz contraction*, problem **12.9**, page 493.
- (e) *Lorentz transformation*, problem **12.12**, page 498.
- (f) *Relativistic transformation of a plane wave*, problem **12.47**, page 534.

2. Transmission lines

F.T. Ulaby, *Electromagnetics for Engineers*, Prentice Hall, 2004 (text available via Blackboard)

- (a) *Rigid coaxial air line*, problem **7.2**, page 247; use $\mu_c \approx \mu_0$, $\sigma_c = 5.8 \cdot 10^7 \text{S/m}$.
- (b) *Solutions of the telegraphers equation*, problem **7.3**, page 251.
- (c) *Lossless transmission line*, problems **7.5**, **7.6**, page 252.
- (d) *Termination of transmission lines*, problems **7.7**, **7.8**, page 255.
- (e) *Standing waves*, problems **7.9**, **7.10**, page 259.

Hand in your solutions until Wednesday, October 23, 08:45. Good luck!