

PHYC 511: Electrodynamics

Spring 2018

Homework Assignment #4

(Due March 7, 2018)

1- A coil is wound on the surface of a sphere such that the magnetic field inside the coil is uniform. What is the angular dependence of the current density in the winding? (Hint: Think of a uniformly magnetized sphere for which the magnetic field is uniform in the interior.)

2- Problem 5.17, Jackson.

3- Problem 5.20, part (a), Jackson.

4- Problem 5.22, Jackson.