

Workbook



Table of Contents

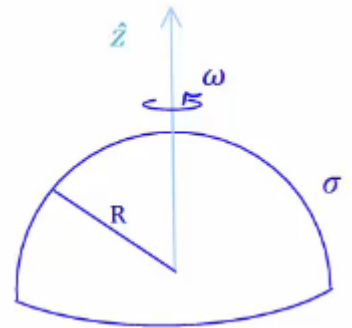
Magnetic Dipole Moment.....	2
Magnetic Dipole Moment.....	2

Magnetic Dipole Moment

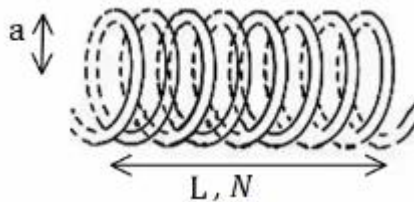
Magnetic Dipole Moment

Questions

- 1) We are given a magnetic dipole located at the origin, with magnetic dipole moment $\vec{\mu} = (\mu, 0, 0)$. Find μ such that an electron, positioned at $(0, -a, 0)$, with velocity $(0, 0, v)$, will move in circular motion.
- 2) Half a spherical shell has charge density σ and rotates about the z axis. What is the magnetic dipole moment of the shell?



- 3) A coil of radius a and length L has N turns. Calculate the magnetic dipole moment of the coil.



*For the solutions go see the videos