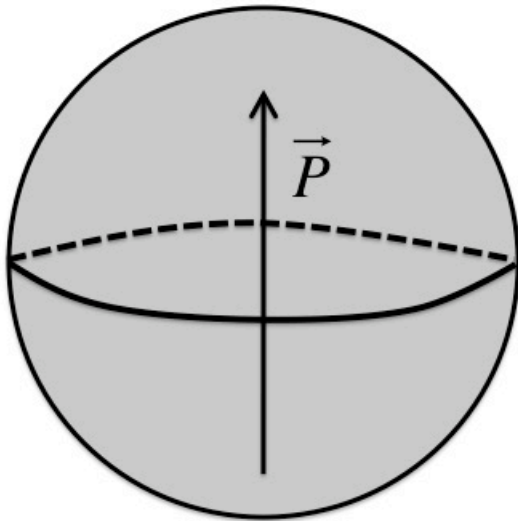


Quiz #2 Due 3/27/09 (Friday)

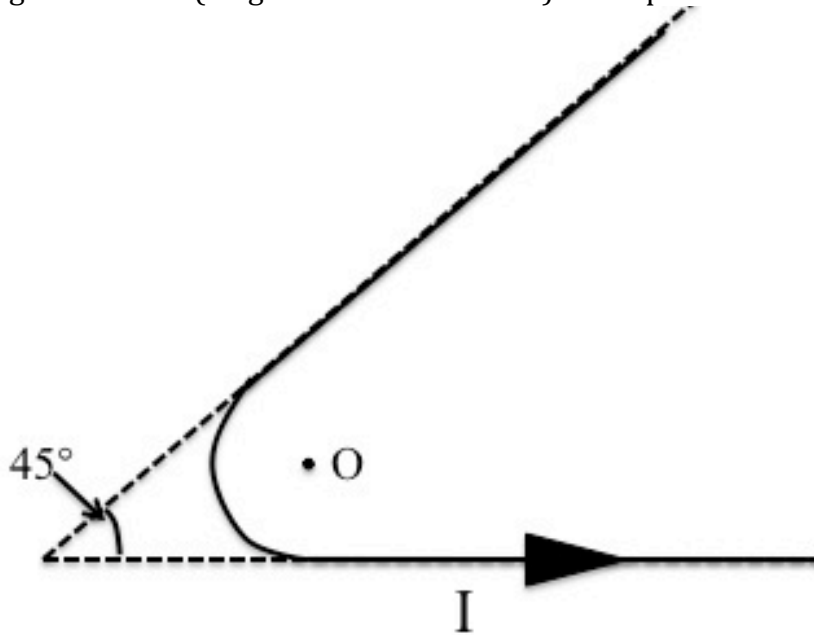
Problem 1

Calculate electric field everywhere for a sphere which has been uniformly polarized to \vec{P} in z direction.



Problem 2

A wire comes straight in from infinity follows a circular arc centered on a point and goes straight back to infinity as shown. If the wire is carrying a current I , what is the magnetic field B (magnitude and direction) at the point at the center of the arc?



Problem 3

Calculate magnetic field exerted by a rotating spherical shell (angular velocity = ω), which has a surface charge density σ .

