Distriución angular de potencia radiada:

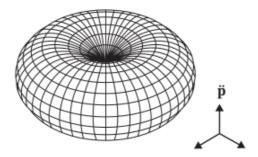


Figure 20.17: Radiation pattern produced by a vertically oriented electric dipole located at the center of the diagram.

Dipolos (el dipolo magnético es igual si $\vec{m} = m \hat{k}$)

Un par de ejemplos de cuadrupolos:

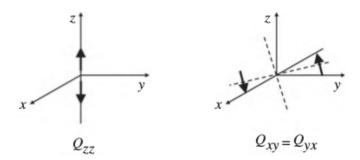


Figure 20.19: A point quadrupole is formed when two oppositely oriented dipoles are displaced toward one another and meet at the origin. Left panel: "axial" quadrupole where the dipoles point along $\hat{\mathbf{z}}$ and are displaced along $\hat{\mathbf{z}}$. Right-panel: "lateral" quadrupole where the dipoles point along a line in the x-y plane and are displaced in the x-y plane at right angles to their orientation.

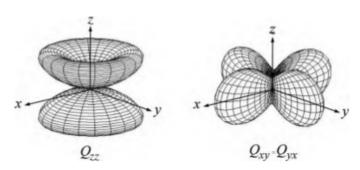


Figure 20.20: Angular distribution of power from point-like radiators. Left panel: axial quadrupole Q_{zz} . Right-panel: lateral quadrupole $Q_{xy} = Q_{yx}$.