

Electric Fields

Physics

Field strength, potential, and the two field geometries.

Radial against uniform fields.

Quantity	Radial (point charge)	Uniform (plates)
Field strength E	kQ/r^2	V/d
Potential V	kQ/r	Varies linearly
Force on charge q	qE	qE
Field lines	Radiate outward	Parallel, evenly spaced

Field strength is the gradient of potential: $E = -dV/dr$. Field lines always run from high to low potential.