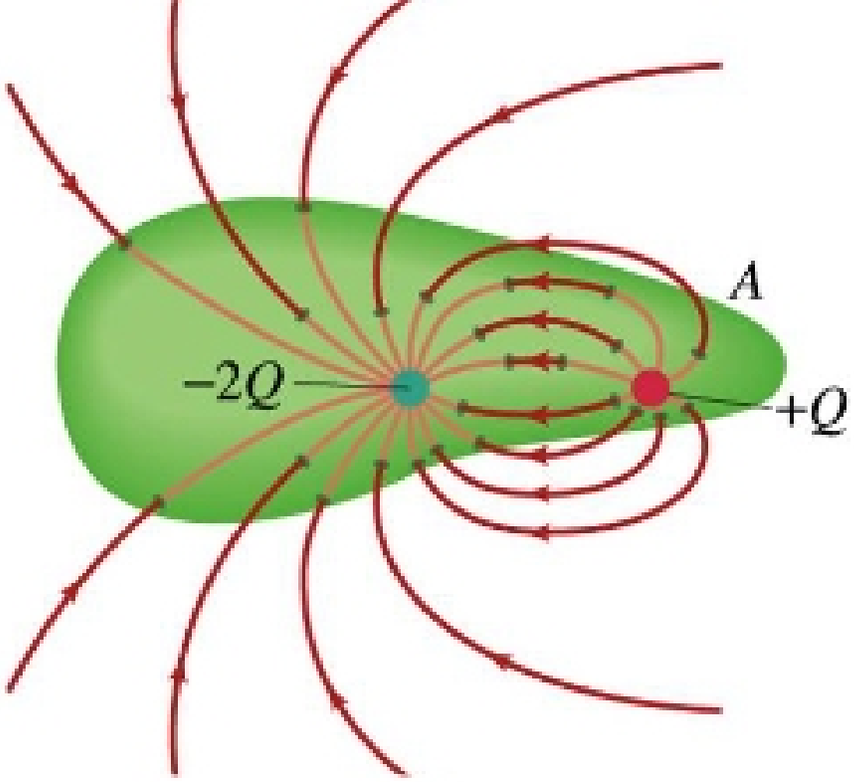
Maxwell's equations

Physics 122



$$\Phi_E = \oint_{\text{closed surface}} \vec{E}\,d\vec{A} = \frac{Q}{\varepsilon_0}$$

Gauss's law
the number of field lines that go in = the number of field lines that go out, unless there are sinks (negative charges) or sources (positive charges)

“Gauss’s law” for magnetic field

- **Can you guess:**

$$\Phi_B = \oint BdA = ?$$

closed surface