

Maxwell's Equations

Static Fields:

Integral Form

Differential Form

Faraday's Law

$$\oint_c \bar{E} \cdot d\bar{l} = 0$$

$$\bar{\nabla} \times \bar{E} = 0$$

Ampere's Law

$$\oint_c \bar{H} \cdot d\bar{l} = \int_s \bar{J} \cdot d\bar{s}$$

$$\bar{\nabla} \times \bar{H} = \bar{J}$$

Gauss' Law

$$\oint_s \bar{D} \cdot d\bar{s} = \int_V \rho_v dV$$

$$\bar{\nabla} \cdot \bar{D} = \rho_v$$

$$\oint_s \bar{B} \cdot d\bar{s} = 0$$

$$\bar{\nabla} \cdot \bar{B} = 0$$