

$$\nabla \times \vec{E} = -\frac{\partial \vec{B}}{\partial t} \quad \nabla \times \vec{B} = \vec{j} + \frac{\partial \vec{E}}{\partial t} \quad \nabla \cdot \vec{E} = \rho \quad \nabla \cdot \vec{B} = 0 \quad (1)$$