

$$\left\{ \begin{array}{l} \nabla \cdot \mathbf{E} = \frac{\rho}{\epsilon_0} \\ \nabla \cdot \mathbf{B} = 0 \\ \nabla \times \mathbf{E} = - \frac{\partial \mathbf{B}}{\partial t} \\ \nabla \times \mathbf{B} = \mu_0 \mathbf{j} + \mu_0 \epsilon_0 \frac{\partial \mathbf{E}}{\partial t} \end{array} \right.$$



$$\mu_0 \epsilon_0 \frac{\partial^2 \mathbf{E}}{\partial t^2} = \nabla^2 \mathbf{E}$$

$$\hookrightarrow 299\,792\,458 \frac{\text{m}}{\text{s}}$$

$$\left(\frac{1}{v^2} \frac{\partial^2 z}{\partial t^2} = \frac{\partial^2 z}{\partial x^2} \right)$$