# Topics on Modern Optics - FI264

Thiago Alegre
Paulo Dainese
Gustavo Wiederhecker

some extra text 3

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- Maxwell Equations
  - Vacuum
  - Matter
- Perturbation Theory

# Maxwell Equations

Maxwell equations in vacuum are given by [2, 1],

$$\nabla \cdot \mathbf{E} = \rho \tag{1}$$

$$\nabla \cdot \mathbf{B} = 0 \tag{2}$$

$$\nabla \times \mathbf{E} = -\frac{\partial \mathbf{B}}{\partial t} \tag{3}$$

$$\nabla \times \mathbf{H} = \mathbf{D} + \epsilon_0 \mu_0 \frac{\partial \mathbf{E}}{\partial t} \tag{4}$$

(5)

Maxwell equations are cool! Specially ??

# Maxwell Equations in Vacuum

New item

## Maxwell Equations in Dielectric Media

New item

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#### Maxwell Perturbation Theory

New item

### Bibliography



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