

## ECUACIONES DE LA TEORÍA ELECTROMAGNETICA

	Flujo Eléctrico $\Phi_E = \iint_S \vec{E} \cdot d\vec{S}$ Circulación Eléctrica $C_E = \int_C \vec{E} \cdot d\vec{r}$	Flujo Magnético $\Phi_B = \iint_S \vec{B} \cdot d\vec{S}$ Circulación Magnética $C_B = \int_C \vec{B} \cdot d\vec{r}$		
Ley de Gauss de la Electricidad	$\Phi_E = \iint_S \vec{E} \cdot d\vec{S} = \frac{q}{\epsilon_0}$	Teorema de Gauss $\iint_S \vec{F} \cdot d\vec{S} = \iiint_V \text{div } \vec{F} \, dV$	$\text{div } \vec{E} = \frac{\rho}{\epsilon_0}$	$\nabla \cdot \vec{E} = \frac{\rho}{\epsilon_0}$
Ley de Gauss del Magnetismo	$\Phi_B = \iint_S \vec{B} \cdot d\vec{S} = 0$	Teorema de Gauss $\iint_S \vec{F} \cdot d\vec{S} = \iiint_V \text{div } \vec{F} \, dV$	$\text{div } \vec{B} = 0$	$\nabla \cdot \vec{B} = 0$
Ley de Ampere	$\oint_C \vec{E} \cdot d\vec{s} = -\frac{d\Phi_B}{dt}$	Teorema de Stokes $\oint_C \vec{F} \cdot d\vec{s} = \iint_R \text{rot } \vec{F} \cdot d\vec{S}$	$\text{rot } \vec{E} = -\frac{d\Phi_B}{dt}$	$\nabla \times \vec{E} = -\frac{d\Phi_B}{dt}$
Ley de Faraday	$\oint_C \vec{B} \cdot d\vec{s} = \mu_0 \epsilon_0 \frac{d\Phi_E}{dt} + \mu_0 i$	Teorema de Stokes $\oint_C \vec{F} \cdot d\vec{s} = \iint_R \text{rot } \vec{F} \cdot d\vec{S}$	$\text{rot } \vec{B} = \mu \epsilon \frac{d\Phi_E}{dt} + \mu_0 i$	$\nabla \times \vec{B} = \mu \epsilon \frac{d\Phi_E}{dt} + \mu_0 i$

In the beginning God said:

$$\text{div } \vec{D} = \nabla \cdot \vec{D} = \rho$$

$$\text{rot } \vec{E} = \nabla \times \vec{E} = -\frac{\partial \vec{B}}{\partial t}$$

$$\text{div } \vec{B} = \nabla \cdot \vec{B} = 0$$

$$\text{rot } \vec{H} = \nabla \times \vec{H} = \vec{J} + \frac{\partial \vec{D}}{\partial t}$$

and there was light.

I do not believe in the electromagnetic field because I can see it, or because I can feel it with my physical senses. Neither do I believe in its existence, because it is a very logical, respectable and well-structured teaching. I believe the electromagnetic field exists, because of the abundant observable effects that produces over the matter.

In the same sense I do not believe in the spiritual world because I can see it, or because I can feel it with my physical senses. Neither do I believe in its existence, just because it is a very logical, respectable and well-structured teaching. I believe the spiritual world exists, because of the abundant observable effects that produces over the values, attitudes and abilities of believers.