Electromagnetics

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Chapter 1

Magnetic Vector Potential

1.1 Definitions

DEFINITION (Magnetic Vector Potential)**.** The magnetic vector potential $\boldsymbol{A}$ is a vector field, defined along with the electric potential φ (a scalar field) by the equations:

$$\boldsymbol{B} = \nabla \times \boldsymbol{A}, \quad \boldsymbol{E} = -\nabla\varphi - \frac{\partial \boldsymbol{A}}{\partial t},$$

where $\boldsymbol{B}$ is the magnetic field and $\boldsymbol{E}$ is the electric field.

PROPOSITION 1.1.1. add proposition like this.

THEOREM 1.1. add theorem like this.

COROLLARY 1.1. add corollary like this.

EXAMPLE 1.1.1. add example like this.