15.4: Maxwell's Second Equation

Unlike the electrostatic field, magnetic fields have no sources or sinks, and the magnetic lines of force are closed curves. Consequently the surface integral of the magnetic field over a closed surface is zero, and therefore

\[
\text{div} \ \mathbf{B} = 0 \tag{15.4.1} \label{15.4.1}
\]

or, in the nabla notation

\[
\nabla \cdot \mathbf{B} = 0 \tag{15.4.2} \label{15.4.2}
\]

This is the second of Maxwell's equations.

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