ENPH 353 Exercise - LaTeX

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1 Getting Started

Hello World!

Here is a sample exercise in LaTeXthat will give you a chance to do some basic work. Use the `\usepackage{amsmath}` and usepakagegraphicx codes in the preamble so that we can include external figures and use more advanced equations. By using the verb command, we can show how commands are typed.

I would use this program when I want to write a lot of equations. I can write in line math such as $a^2 + b^2 = c^2$. I can also give equations their own space using `\begin{equation} x=... \end {equation}`:

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a} \tag{1}$$

The `\begin{align} x&=y\\z&=y2 \end{align}` command allows for several equations to be lined up vertically. "Maxwell's equations" are named for James Clerk Maxwell and are as follows:

$$\vec{\nabla} \cdot \vec{E} = \frac{\rho}{\epsilon_0} \tag{2}$$

$$\vec{\nabla} \cdot \vec{B} = 0 \tag{3}$$

$$\vec{\nabla} \times \vec{E} = -\frac{\partial \vec{B}}{\partial t} \tag{4}$$

$$\vec{\nabla} \times \vec{B} = \mu_0 \left(\epsilon_0 \frac{\partial \vec{E}}{\partial t} + \vec{J} \right) \tag{5}$$

Equations 2, 3, 4, and 5 are some of the most important in Physics. I labelled each one using `\label{name}`, and then referenced them using `\ref{name}`.

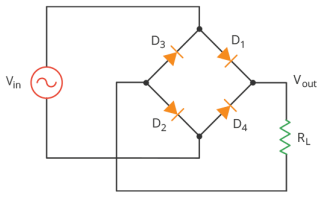

Figure 1: Circuit diagram of a full bridge rectifier.