A Simple LaTeX Article

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Abstract

This is a very simple LaTeX article that illustrates some of the features of LaTeX. This abstract is formatted by a default command.

1 Introduction to Equations

It's quite easy to create section headings. We can format them later. Once you learn the syntax, equations are a snap! You could typeset simple equations inline to show that $\vec{F} = m\vec{a}$, or you could separate the equations from text to show that

$$V = -\frac{fR}{2} \pm \left(\frac{f^2 R^2}{4} - R \frac{\partial \Phi}{\partial n} \right)^{1/2}.$$

Notice the punctuation (i.e., the ".") that often accompanies equations. The `\displaymath` command does the same thing as the `$$`. In scientific papers, it's often useful to number the equations, such as

$$\frac{\partial \vec{V}_g}{\partial \ln p} = -\frac{R}{f} \vec{k} \times \nabla_p T. \tag{1}$$

Then we can refer to the thermal wind relation (Eq. 1) using a reference label instead of by a specific number. That way, both the equation number and reference will change automatically if we add more numbered equations to the document!

A blank line tells LaTeX to make a new paragraph.

2 Spacing and Formatting

LaTeX is extremely flexible with spacing and text formatting, which is something that Microsoft Word can't quite keep up with.

Sometimes, you may want to change the font size and appearance **using font size** *and* STYLE *commands*.

Play with text

1. apple
2. orange
3. strawberry