My Example LaTeX Journal Paper

Michael Weeks, *Member, IEEE*

***Abstract*—This is the abstract. You can use this file to start your own LaTeX file, and just delete the stuff you do not need. LATEXis a lot like working with HTML: you can specify where text effects begin, and where they end.**

I. Introduction

Here is the introduction. Since there is no blank line between these first 3 sentences, they are treated as one paragraph. Here is a vertical space (of 0.3 inches):

And here is a horizontal space (of 0.3 inches).

A blank line means that the last paragraph is over, and it is time to start a new one.

You can have text in *italics* font, or in **bold** font, underlined, and even *overlined*. What if you want overlined text, without italics? This can be done by using `mathrm` in the overlined specification.

Citing a reference: This is a book about VLSI [1]. Also, the references contain a good conference paper [2], and a good journal article [3].

TABLE I

Table captions go above tables.

	runs	hits	errors
Cardinals	2	2	1
Panthers	4	8	0
Tigers	2	3	2
Braves	3	10	3

What if you want to include a figure? Here is an example, figure 1, that is saved in encapsulated postscript format.

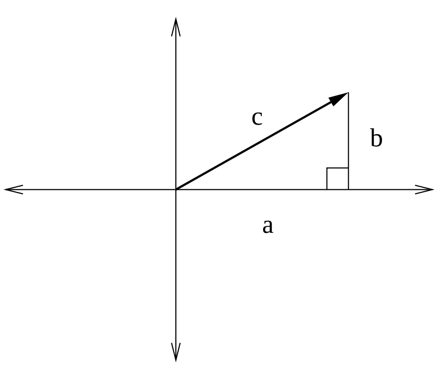

Fig. 1. Here is an example vector.

M. Weeks is with the Computer Science Department, Georgia State University, Atlanta, Georgia, USA 30303, email: mweeks@nospam.org

Skip a lot of space vertically.

II. Here is some Computer Code

I like using the `verbatim` specification for computer code. For example, here is something that appears in several languages:

```
for (int i=0; i< MAXVALUE-1; i++)
{
    if (array[i] < array[i+1])
    {
        temp = array[i];
        array[i] = array[i+1];
        array[i+1] = temp;
    }
}
```

See how it makes the code stand out? I think it makes it much easier to read, too.

III. Here is some Math

This is different from the previous section, section I. This section gives some examples of Math.

Using superscript: 2^n

Using subscript: x_0

If you use a character, but LaTeX complains about it, try putting a back-slash before it. For example, f = x^y uses the carat character. If you want to end a line, use 2 back-slashes. If you want the backslash character \ in your document, this can be done, too.

Here's an equation:

$$M^\perp = \{f \in V' : f(m) = 0 \text{ for all } m \in M\}.$$

Here's d2u/dx2 : (use the dollar sign before and after math stuff)

$\frac{d^2u}{dx^2}$

Here's another equation:

$$\lim_{x \to 0} \frac{3x^2 + 7x^3}{x^2 + 5x^4} = 3.$$

Here's a summation:

$$\sum_{k=1}^{n} k^2 = \frac{1}{2} n(n+1).$$

and an integral:

$$\int_a^b f(x)\, dx.$$

Here are some Greek letters: $\Delta\Psi\Phi$ and some lower case ones: $\delta\psi\phi\omega\pi\sigma\mu$.

For more info, see

http://www.maths.tcd.ie/~dwilkins/LaTeXPrimer/

IV. Filler

It is always a good idea to have text between a section header and a subheading.

A. Sentences About Nothing

This sentence does not really say anything important, but it does take up space. This sentence does not really say anything important, but it does take up space. This sentence does not really say anything important, but it does take up space. This sentence does not really say anything important, but it does take up space. This sentence does not really say anything important, but it does take up space.

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B. More About Nothing

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References

[1] Neil H. E. Weste and Kamran Eshraghian, *Principles of CMOS VLSI Design*, 2nd ed. Reading, MA: Addison-Wesley, 1993.

[2] R. A. Lincoln and K. Yao, "Efficient Systolic Kalman Filtering Design by Dependence Graph Mapping," in *VLSI Signal Processing, III*, IEEE Press, R. W. Brodersen and H. S. Moscovitz Eds., 1988, pp. 396–410.

[3] C. H. Bischof and G. M. Shroff, "On Updating Signal Subspaces," *IEEE Trans. on Signal Processing*, vol. 40, no. 1, pp. 96–105, Jan. 1992.