Alternative fonts in LaTeX: a test document

Hugh C. Pumphrey

February 2, 2014

1 Introduction

The vast majority of LaTeX documents use the standard computer modern fonts. But you do not have to stick with these old stalwarts: there are some alternative font possibilities. A word of caution, though. If you want your document to look nice, all the fonts in it should work together and look good together. Or you will get lossage such as the numbers in formulæ not looking like those in the running text. This document contains many of the style commands common in LaTeX documents to test whether a given font package supports them all. For more information, go to the LaTeX font catalogue at `http://www.tug.dk/FontCatalogue/`.

2 Some tests

2.1 Font styles

It is common in a LaTeX document to use

- `\emph{}` to *emphasise* text,
- `\textit{}` to make *italic* text,
- `\textsl{}` to make *slanted* text,
- `\textbf{}` to make **bold** text,
- `\textsf{}` to get sans serif,
- `\texttt` for a `monospaced typewriter font.`
- `\textsc{}` To Speak Like Death, in CAPS and small caps.
- `\textrm{}` to get text in a serif font?

Note that *italic* and *slanted* are the same as each other in some font packages and different from each other in other font packages. Also note that if your main font is a sans font then `\textsf{}` and `\textrm{}` are the same thing.

2.2 Mathematical formulæ

In-line equations look like this: $x^2 + y^2 = z^2$ Displayed equations look like this:

$$A = \int_0^\infty \frac{x^2 \cos ax}{1 + x^3}\, dx$$

Numbered equations are done using `\begin{equation}` and `\end{equation}`, like in equation 1.

$$\sigma = \sqrt{\frac{1}{n}\sum_{j=0}^{n}(x_j - \bar{x})^2} \tag{1}$$

To ensure that lower-case greek letters such as λ, α, β, θ, ϕ, and upper-case greek letters such as Δ, Θ, Φ, Ξ appear correctly we try this:

$$\cos\theta \sin\phi = \cos\Delta_C \sin\Delta_A - \tan\Psi \cot\Xi$$

There are some font packages in which the capital Greek letters do not appear correctly. A problem with alternative fonts is that 1234567890 (running text) may look different from 1234567890 (in math mode). They should look the same. Here they are next to each other, so that you can check:
12345678901234567890
Another problem is that the function names in formulæ may revert to computer modern roman. Compare
$\cos x + \sin y$ in math mode with
cos x + sin y in text mode. Text mode won't get the spacing right (and maybe not the fonts for x and y), but the fonts for cos and sin should match.