The **sansmath** package

Donald Arseneau∗

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1 Outline

The package is designed to offer sans-serif mathematics in the absence of proper sans maths fonts.

The package’s name could be misconstrued: there was an ambition to do the job for “non-standard” sans fonts (as indicated by the value of \sfdefault), but the only good results have been with Computer Modern and cmss.

2 Use

After `\usepackage{sansmath}`, a new “math version” sans is defined, together with a command `\sansmath`, which behaves as `\boldmath` does.

There is also a command `\unsansmath` (which does what you might imagine), but if maths are to be sans-serif for a limited area of document, it is better to limit it to a local group, for example by `\begin{sansmath} ... \end{sansmath}`

Within the scope of the `\sansmath` declaration, maths characters will be taken from the text sans-serif family as much as possible. The actual sans fonts are OT1 encodings of those indicated by the meaning of `\sfdefault WHEN THE PACKAGE WAS LOADED`, not the meaning at each maths environment!

Since the OT1 text fonts do not provide the lower-case greek letters, there is a package option `[eulergreek]` to take the lowercase greek from the Euler maths fonts.

Since some (many) sans fonts have no uppercase greek letters either (missing characters from the OT1 encoding), there is an option `[EULERGREEK]` to take all greek letters from the euler fonts. In this case one should also investigate using Euler fonts for all maths in the document, using package euler instead of this one!

OT1 encoding is normally required to get the uppercase greek letters, but if you use the [EULERGREEK] option or don’t use any uppercase greek letters, then you are welcome to define `\sansmathencoding before loading this package. There is also a package option [T1] to perform that particular definition. Note the comment above about only cmss being good — even the T1-encoded ec fonts are poor substitutes.

The package achieves maths-italic by reloading the slanted version of the text sans-serif font, and changing a `fontdimen` parameter (spaceskip). This causes the italic correction to be applied between letters (good) but does not break up the ‘fi’ and ‘fl’ ligatures (bad). (Why does a sans font have these ligatures anyway?) As yet, nothing is done about this bug.

∗Documentation file assembled by Robin Fairbairns