

# The `sansmath` package

Donald Arseneau\*

2003-08-13, version 1.0

## 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