

The `sansmath` package

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Purpose

The purpose of `sansmath` is to offer sans-serif math in the absence of proper sans math fonts by using the text sans-serif font (as given by `\sfdefault`).

Despite the original hope of wide applicability to most sans-serif (text) fonts, few have worked well with this package; the only really good results have been for Computer Modern with `cmss`, whereas the result for Helvetica was particularly vile. (If you find other fonts that work well, please share the information!)

Use

Declare `\usepackage{sansmath}` in the document preamble. This will define a new “math version” `sans`, together with a command `\sansmath`, which is analogous to `\boldmath`.

There is also a command `\unsansmath` (to undo `\sansmath`), but it is probably better to use grouping if the effect of `\sansmath` is to be localized (perhaps using `\begin{sansmath} ... \end{sansmath}`).

When a `\sansmath` declaration is in effect, math 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 math environment!

Since the OT1 text fonts do not provide the lower-case greek letters,

there is a package option `[eulergreek]` to take the lower-case greek from the Euler maths¹ fonts.

Further, 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* mathematics in the document, using package `eulervm` 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.

¹It is “maths” with thanks to and fond memory of Robin Fairbairns.