The HEP-MATH-FONT package*

Extended Greek and sans-serif math

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Abstract

The HEP-MATH-FONT package adjust the math fonts to be italic sans-serif if the document is sans-serif. Additionally Greek letters are redefined to be always italic and upright in math and text mode, respectively. Some math font macros are adjusted to give more consistently the naively expected results.

The package is loaded using `\usepackage{hep-math-font}`.

If the document `\familydefault` font is switched to the sansserif `\sfdefault` font the math font is adjusted accordingly using fonts compatible to latin modern (LM) and computer modern
`warning` (CM). In order to be able to easily switch large chucks of math from serif to sans-serif documents the meaning of `\mathrm` and `\mathsf` is adjusted in this case so that the first generates upright sans-serif math and the second serif math. This is is neither the literal meaning of the macros nor the best behaviour if a single large document is written in sans-serif. However, it simplifies working in an environment where one copies pieces of math between serif and sans-serif documents e.g. publications vs. talks and funding applications.

Using the FIXMATH [1] and TEXTALPHA [2] packages Greek letter are adjusted so that they are always italic and upright in math and text mode, respectively. Greek letters can be written by using their unicode characters, with code following the ALPHABETA package [3].

`symbols` The `symbols=`⟨*family*⟩ class option sets the family of the symbol fonts. `symbols=ams` loads the two $\mathcal{A}_{\mathcal{M}}\mathcal{S}$ fonts [4] and the BM bold fonts. The default `symbols=true` replaces additionally the blackboard font with the DSFONT [5]. `symbols=minion` switches the symbol fonts to the Adobe MinionPro companion font from the MNSYMBOL package [6]. `symbols=false` deactivates loading any additional symbol fonts, effectively restricting the package to only switch the math font according to the sans-serif property of the main text.

1 Macros

`\text` `\mathrm` The `\mathrm{`⟨*math*⟩`}` macro and the `\text{`⟨*text*⟩`}` macro from AMSTEXT [7] are adjusted to produce upright Greek letters, i.e. (AbΓδ**AbΓδ**), by adjusting the code from the ALPHABETA [3] package.

`\mathbf` Bold math, via `\mathbf` is improved with the BM package [8], i.e. ($Ab\Gamma\delta\boldsymbol{Ab\Gamma\delta}$). Macros switching to `bfseries` such as `\section{`⟨*text*⟩`}` are ensured to also typeset math in bold.

`\mathsf` The math sans-serif alphabet is redefined to be italic sans-serif if the main text is serif and italic

*This document corresponds to HEP-MATH-FONT v1.4.

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serif if the main text is sans-serif, i.e. ($Ab\Gamma\delta\mathbf{Ab\Gamma\delta}$). Ensuring that the distinction between these fonts is also kept if the (sans-)serif option of the document is switched.

`\mathscr` The `\mathcal` font i.e. ($\mathcal{ABCD}$) is accompanied by the `\mathscr` font i.e. ($\mathscr{ABCD}$).

`\mathbb` The `\mathbb` font is improved by the DOUBLESTROKE package [5] and adjusted depending on the (sans-)serif option of the document i.e. ($\mathbb{Ah1}$).

`\mathtt` The `\mathtt` macro switches to LM typewriter font i.e. (`AbΓAbΓ`).

`\mathfrak` Finally, the `\mathfrak` font is also available i.e. ($\mathfrak{Aa}\mathfrak{Bb12}$).

Details about the font handling in TEX can be found in reference [9].

2 Math alphabet allocation

Of the 16 available math alphabets, TEX loads four by default

0) **OT1** Text (latin, upper case greek, numerals, text symbols)

   The text font 0) of CM is **cmr10** `\OT1/cmr/m/n/10`, which is replaced by LM to be **rm-lmr10** `\OT1/lmr/m/n/10`, the `sansserif` option uses **rm-lmss10** `\OT1/lmss/m/n/10`.

1) **OML** Math Italic (latin, greek, numerals, text symbols)

   The italic math font 1) of CM is **cmmi10** `\OML/cmm/m/it/10`, and is replaced by LM to be **lmmi10** `\OML/lmm/m/it/10`, the `sansserif` options uses **cmssmi10** `\OML/cmssrm/m/it/10` from the SANSMATHFONTS package [10].

2) **OMS** Symbol (`\mathcal`, operators)

   The symbol font 2) of CM is **cmsy10** `\OMS/cmsy/m/n/10`, and is replaced by LM to be **lmsy10** `\OMS/lmsy/m/n/10`, the `sansserif` options uses **cmsssy10** `\OMS/cmsssy/m/n/10` from the SANSMATHFONTS package [10].

3) **OMX** Math Extension (big operators, delimiters)

   The extension font 3) of CM is **cmex10** `\OMX/cmex/m/n/5`, and is replaced by the EXSCALE package [11] to be **cmex10** `\OMX/cmex/m/n/10`, the `sansserif` option loads **cmssex10** `\OMX/cmssex/m/n/10`.

The AMSSYMB (AMSFONTS) packages [12] load two more symbol fonts

4) **msam10** `\U/msa/m/n/10` AMS symbol font A (special math operators)

5) **msbm10** `\U/msb/m/n/10` AMS symbol font B (`\mathbb`, negated operators)

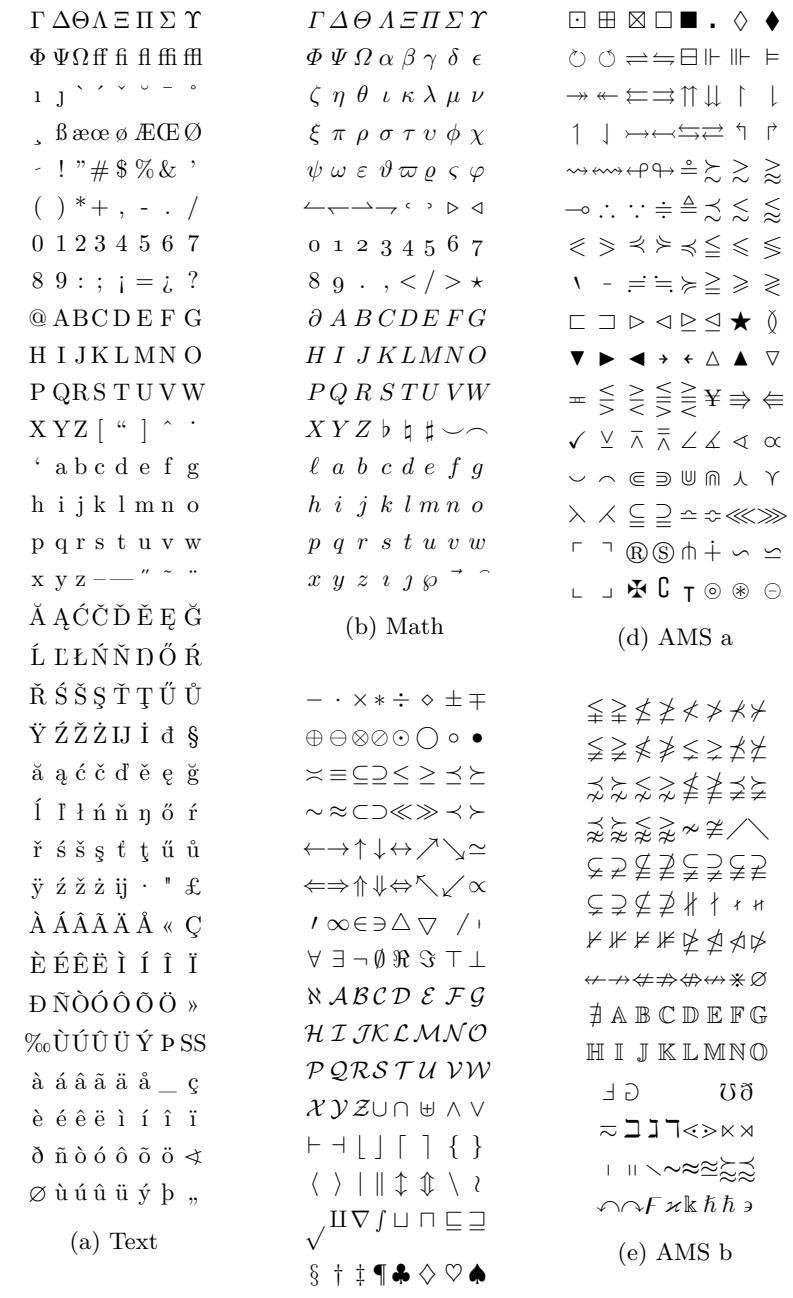
The `sansserif` option replaces them with **ssmsam10** `\U/ssmsa/m/n/10` and **ssmsbm10** `\U/ssmsb/m/n/10` from the SANSMATHFONTS package [10], respectively.

The BM package [8] loads the bold version for the fonts 0) to 2).

Other math alphabets are only loaded on demand, e.g. `\mathsf` uses a sans-serif font and `\mathbf` without the BM package uses a bold font. The `\mathscr` macro uses the script font from the MATHRSFS package [13]

9) **rsfs10** `\U/rsfs/m/n/10` Math script font (capital letters)

The `\mathbb` macro loads the double stroke font from the DSFONT package [5], this can be prevented with the `symbols=ams` option.



(a) Text

(b) Math

(c) Symbol

(d) AMS a

(e) AMS b

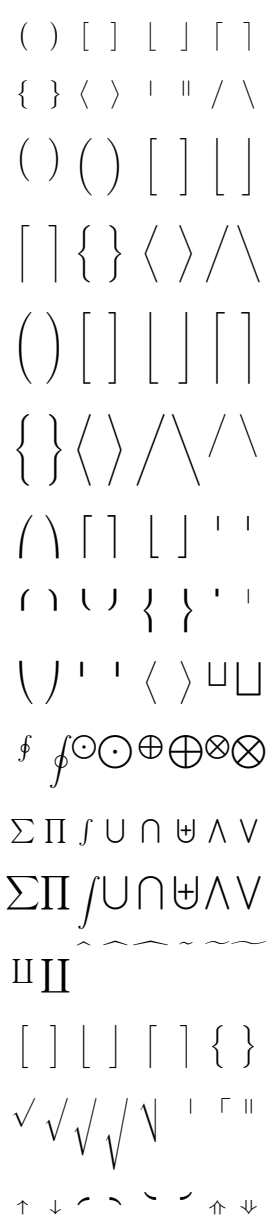
(f) Euler fraktur

(g) Euler caligraphy

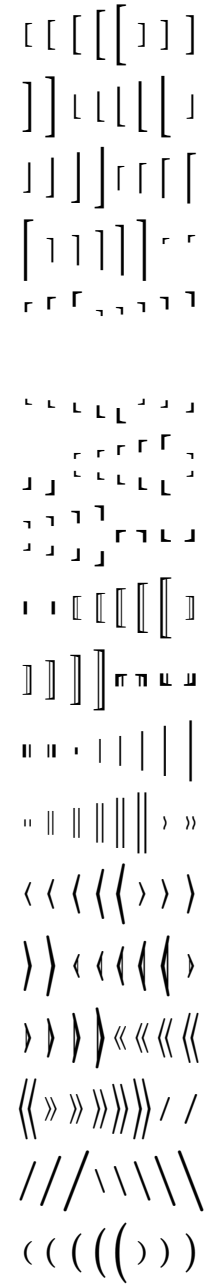
(h) Minion caligraphy

(i) Doublestroke

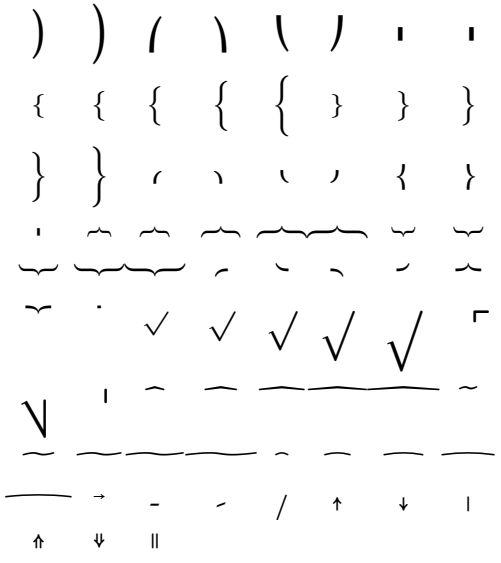
Figure 1: Basic math fonts



(a) Computer modern

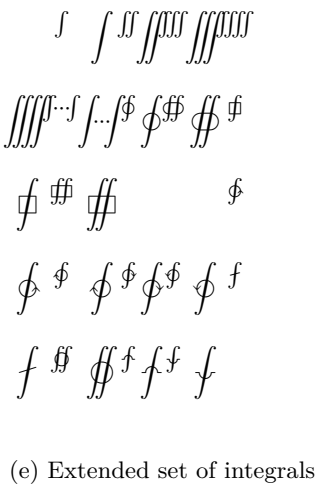


(b) Mn Symbol E 1



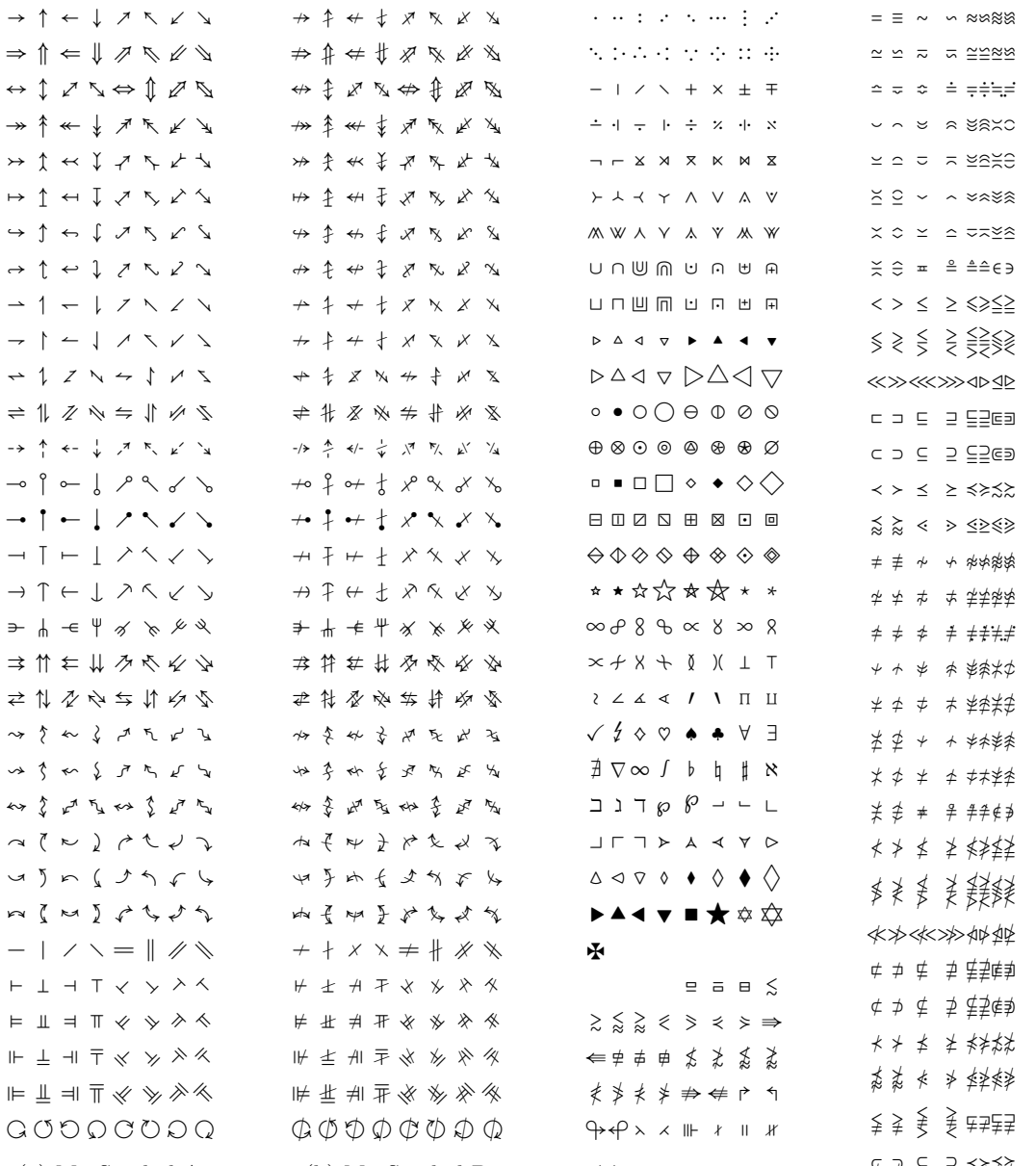
(c) Mn Symbol E 2

(d) Mn Symbols F



(e) Extended set of integrals

Figure 2: Math extension fonts



(a) Mn Symbol A (b) Mn Symbol B (c) Mn Symbol C (d) Mn Symbol D

Figure 3: Minion symbol fonts

10) **dsrom10** `\U/dsrom/m/n/10` Double stroke font

The `\mathfrak` macro loads the fractur font from the AMSSYMB package [12]

11) **eufm10** `\U/euf/m/n/10` Math fraktur (Basic Latin)

The HEP-MATH-FONT package uses nine of the available 16 math alphabets. This number can be reduced by three using `\newcommand{\bmmax}{0}` from the BM package [8] and brought down to the default of four with the option `symbols=false`.

The `symbols=minion` options replaces the fonts 2) to 5) with corresponding fonts from the MnSymbol package [6]. Additionally, two more symbol alphabets are allocated, the BM package [8] loads one more font and now `\mathcal` triggers the use of one additional alphabet. Hence, the minion option uses three to four more math alphabets than a usual setup.

A Implementation

<*package>

Use the KVOPTIONS package [14].

```
\RequirePackage{kvoptions}
\SetupKeyvalOptions{
  family=hepmathfont,
  prefix=hepmathfont@
}
```

`symbols` Provide the `symbols` option allowing to switch the symbol font.

```
\DeclareStringOption[true]{symbols}

\ProcessKeyvalOptions*
```

Define conditionals based on the `symbols` package option using the PDFTEXCMDS package [15].

```
\RequirePackage{pdftexcmds}
\newif\ifhepmathfont@symbols
\ifnum
  \pdf@strcmp{\hepmathfont@symbols}{false}=0
\else
  \hepmathfont@symbolstrue
\fi
\newif\ifhep@ams
\ifnum\pdf@strcmp{\hepmathfont@symbols}{ams}=0 \hep@amstrue\fi
\newif\ifhep@minion
\ifnum\pdf@strcmp{\hepmathfont@symbols}{minion}=0 \hep@miniontrue\fi
```

Check if document is set to sans-serif using the XSTRING package [16].

```
\newif\ifhepmathfont@serif
\RequirePackage{xstring}
\IfStrEq{\familydefault}{\sfdefault}{%
  \hepmathfont@seriffalse}{\hepmathfont@seriftrue%
}
```

A.1 Lualatex

Check for Lualatex using the IFTEX package [17].

```
\RequirePackage{iftex}
\iftutex
```

Load the UNICODE-MATH package [18].

```
  \AtBeginDocument{
    \let\mathbf\symbf
    \let\mathrm\symup
    \let\mathsf\symsf
    \let\mathbfrm\symbfup
    \let\mathbfsf\symbfsf
  }
```

Unicode implementation of Greek letters.

```
  \AtBeginDocument{
    \renewcommand*{\Gamma}{Γ}
    \renewcommand*{\Delta}{Δ}
    \renewcommand*{\Lambda}{Λ}
    \renewcommand*{\Phi}{Φ}
    \renewcommand*{\Pi}{Π}
    \renewcommand*{\Psi}{Ψ}
    \renewcommand*{\Sigma}{Σ}
    \renewcommand*{\Theta}{Θ}
    \renewcommand*{\Upsilon}{ϒ}
    \renewcommand*{\Xi}{Ξ}
    \renewcommand*{\Omega}{Ω}
    \renewcommand*{\alpha}{α}
    \renewcommand*{\beta}{β}
    \renewcommand*{\gamma}{γ}
    \renewcommand*{\delta}{δ}
    \renewcommand*{\epsilon}{ε}
    \renewcommand*{\zeta}{ζ}
    \renewcommand*{\eta}{η}
    \renewcommand*{\theta}{ϑ}
    \renewcommand*{\iota}{ι}
    \renewcommand*{\kappa}{ϰ}
    \renewcommand*{\lambda}{λ}
    \renewcommand*{\mu}{μ}
    \renewcommand*{\nu}{ν}
    \renewcommand*{\xi}{ξ}
    \renewcommand*{\pi}{π}
    \renewcommand*{\rho}{ρ}
    \renewcommand*{\sigma}{σ}
    \renewcommand*{\varsigma}{ς}
    \renewcommand*{\tau}{τ}
    \renewcommand*{\upsilon}{υ}
    \renewcommand*{\phi}{φ}
```

```
    \renewcommand*{\chi}{χ}
    \renewcommand*{\psi}{ψ}
    \renewcommand*{\omega}{ω}
  }
```

A.2 PdfLatex

```
\else
```

A.2.1 Serif

```
  \newcommand*\mathbfrm[1]{\mathbf{\mathrm{#1}}}
  \newcommand*\mathbfsf[1]{\mathbf{\mathsf{#1}}}
```

If the `sansserif` package option is active use code adjusted from the SANSMATHFONTS package [10]. Ensure that `\mathsf` is italic as well as sans-serif and sans for sans and sans-serif documents, respectively.

```
  \ifhepmathfont@serif
```

`\mathsf` Declare `\mathsf` for serif documents.

```
    \newcommand*\hep@font@sf{cmssm}
    \DeclareMathAlphabet{\mathsf}{OML}{\hep@font@sf}{m}{it}
    \SetMathAlphabet{\mathsf}{bold}{OML}{\hep@font@sf}{b}{it}
    \newcommand*\hep@textfont@sf{lmss}
    \DeclareMathAlphabet{\mathsftext}{OT1}{\hep@textfont@sf}{m}{n}
    \SetMathAlphabet{\mathsftext}{bold}{OT1}{\hep@textfont@sf}{bx}{n}
```

A.2.2 Sans serif

Define fonts for sans-serif documents.

```
  \else
```

```
    \newcommand*\hep@font@sf{lmr}
    \newcommand*\hep@font@text{lmss}
    \newcommand*\hep@font@math{cmssm}
    \newcommand*\hep@font@symbol{cmsssy}
    \newcommand*\hep@font@extra{cmssex}
```

Declare font substitutions.

```
    \DeclareFontSubstitution{OML}{\hep@font@math}{m}{it}
    \ifhepmathfont@symbols\ifhep@minion\else
      \DeclareFontSubstitution{OMS}{\hep@font@symbol}{m}{n}
      \DeclareFontSubstitution{OMX}{\hep@font@extra}{m}{n}
    \fi\fi
```

Declare the symbol fonts.

```
    \DeclareSymbolFont{operators}{OT1}{\hep@font@text}{m}{n}
    \DeclareSymbolFont{letters}{OML}{\hep@font@math}{m}{it}
    \ifhepmathfont@symbols\ifhep@minion\else
      \DeclareSymbolFont{symbols}{OMS}{\hep@font@symbol}{m}{n}
```

```
      \DeclareSymbolFont{largesymbols}{OMX}{\hep@font@extra}{m}{n}
    \fi\fi
```

Set bold symbol fonts.

```
    \SetSymbolFont{operators}{bold}{OT1}{\hep@font@text}{b}{n}
    \SetSymbolFont{letters}{bold}{OML}{\hep@font@math}{b}{it}
    \ifhepmathfont@symbols\ifhep@minion\else
      \SetSymbolFont{symbols}{bold}{OMS}{\hep@font@symbol}{b}{n}
    \fi\fi
```

Adjust the fonts loaded by the AMSFONTS [4] and ESINT [19] packages.

```
    \ifhepmathfont@symbols\ifhep@minion\else
      \DeclareSymbolFont{AMSa}{U}{ssmsa}{m}{n}
      \DeclareSymbolFont{AMSb}{U}{ssmsb}{m}{n}
    \fi\fi
    \ifhepmathfont@symbols\RequirePackage{alphabeta}\fi %fix compilation error
    \AtBeginDocument{%
      \@ifpackageloaded{esint}{%
        \DeclareSymbolFont{largesymbolsA}{U}{ssesint}{m}{n}
      }{}
    }
```

`\mathrm` `\mathnormal` `\mathcal` Declare the symbol font alphabets.

```
    \DeclareSymbolFontAlphabet{\mathrm}{operators}
    \DeclareSymbolFontAlphabet{\mathnormal}{letters}
    \ifhep@minion\else
      \DeclareSymbolFontAlphabet{\mathcal}{symbols}
    \fi
```

`\mathit` Declare `\mathit`.

```
    \DeclareMathAlphabet{\mathit}{OML}{\hep@font@text}{m}{it}
    \SetMathAlphabet\mathit{bold}{OML}{\hep@font@text}{bx}{it}
```

`\mathsf` Declare `\mathsf` for sans-serif documents to produce serif.

```
    \DeclareMathAlphabet{\mathsf}{OML}{\hep@font@sf}{m}{it}
    \SetMathAlphabet{\mathsf}{bold}{OML}{\hep@font@sf}{bx}{it}
```

End of `sansserif`.

```
  \fi
```

A.3 Greek letters

Load the FIXMATH [1] and ALPHABETA [3] packages ensuring that upper Greek letters in math mode are italic and providing upright Greek letters in text mode, respectively.

```
  \ifhepmathfont@symbols
    \RequirePackage{amssymb}
```

```
\RequirePackage{amstext}
\RequirePackage{fixmath}
\RequirePackage{alphabeta}
```

Define the `hep@greek` macro ensuring that both `\text` and `\mathrm` produce upright Greek letters using the AMSSYMB [12] and AMSTEXT [7] packages.

```
\newcommand*\hep@greek[2]{%
  \TextOrMath{#1}{\ifnum\fam=0 \text{#1}\else#2\fi}%
}
\AtBeginDocument{
  \renewcommand*{\alpha}{\hep@greek{\textalpha}{\mathalpha}}
  \renewcommand*{\beta}{\hep@greek{\textbeta}{\mathbeta}}
  \renewcommand*{\gamma}{\hep@greek{\textgamma}{\mathgamma}}
  \renewcommand*{\delta}{\hep@greek{\textdelta}{\mathdelta}}
  \renewcommand*{\epsilon}{\hep@greek{\textepsilon}{\mathepsilon}}
  \renewcommand*{\zeta}{\hep@greek{\textzeta}{\mathzeta}}
  \renewcommand*{\eta}{\hep@greek{\texteta}{\matheta}}
  \renewcommand*{\theta}{\hep@greek{\texttheta}{\maththeta}}
  \renewcommand*{\iota}{\hep@greek{\textiota}{\mathiota}}
  \renewcommand*{\kappa}{\hep@greek{\textkappa}{\mathkappa}}
  \renewcommand*{\lambda}{\hep@greek{\textlambda}{\mathlambda}}
  \renewcommand*{\mu}{\hep@greek{\textmu}{\mathmu}}
  \renewcommand*{\nu}{\hep@greek{\textnu}{\mathnu}}
  \renewcommand*{\xi}{\hep@greek{\textxi}{\mathxi}}
  \renewcommand*{\pi}{\hep@greek{\textpi}{\mathpi}}
  \renewcommand*{\rho}{\hep@greek{\textrho}{\mathrho}}
  \renewcommand*{\sigma}{\hep@greek{\textsigma}{\mathsigma}}
  \renewcommand*{\finalsigma}{\hep@greek{\textfinalsigma}{\mathvarsigma}}
  \renewcommand*{\tau}{\hep@greek{\texttau}{\mathtau}}
  \renewcommand*{\upsilon}{\hep@greek{\textupsilon}{\mathupsilon}}
  \renewcommand*{\phi}{\hep@greek{\textphi}{\mathphi}}
  \renewcommand*{\chi}{\hep@greek{\textchi}{\mathchi}}
  \renewcommand*{\psi}{\hep@greek{\textpsi}{\mathpsi}}
  \renewcommand*{\omega}{\hep@greek{\textomega}{\mathomega}}
  \renewcommand*{\digamma}{\hep@greek{\textdigamma}{\mathdigamma}}
  \renewcommand*{\varpi}{\hep@greek{\textpisymbol}{\mathvarpi}}
  \renewcommand*{\varrho}{\hep@greek{\textrhosymbol}{\mathvarrho}}
  \renewcommand*{\rhosymbol}{\hep@greek{\textrhosymbol}{\mathvarrho}}
  \renewcommand*{\vartheta}{\hep@greek{\textthetasymbol}{\mathvartheta}}
  \renewcommand*{\varepsilon}{\hep@greek{\textepsilon}{\mathvarepsilon}}
  \renewcommand*{\epsilonsymbol}{%
    \hep@greek{\textepsilonsymbol}{\mathepsilon}%
  }
  \renewcommand*{\varphi}{\hep@greek{\textphi}{\mathvarphi}}
  \renewcommand*{\phisymbol}{\hep@greek{\textphisymbol}{\mathphi}}
  \ifdefined\mathvarbeta
    \renewcommand*{\varbeta}{\hep@greek{\textbetasymbol}{\mathvarbeta}}
  \else
    \renewcommand*{\varbeta}{\textbetasymbol}
  \fi
```

```
    \ifdefined\mathvarkappa
      \renewcommand*{\varkappa}{\hep@greek{\textkappasymbol}{\mathvarkappa}}
    \else
      \renewcommand*{\varkappa}{\textkappasymbol}
    \fi
    \ifdefined\mathvarTheta
      \renewcommand*{\varTheta}{\hep@greek{\textTheta}{\mathvarTheta}}
    \else
      \renewcommand*{\varTheta}{\textTheta}
    \fi
    \renewcommand*{\Thetasymbol}{\textThetasymbol}
  }
```

Ensure that this works also after loading other fonts packages such as CFR-LM.

```
  \AtBeginDocument{\@ifpackageloaded{nfssext-cfr}{
    \DeclareFontFamily{LGR}{clmj}{}
    \DeclareFontFamilySubstitution{LGR}{clmj}{lmr}
    \DeclareFontFamily{LGR}{clm2j}{}
    \DeclareFontFamilySubstitution{LGR}{clm2j}{lmr}
    \DeclareFontFamily{LGR}{clm2}{}
    \DeclareFontFamilySubstitution{LGR}{clm2}{lmr}
    \DeclareFontFamily{LGR}{clm2s}{}
    \DeclareFontFamilySubstitution{LGR}{clm2s}{lmss}
    \DeclareFontFamily{LGR}{clm2js}{}
    \DeclareFontFamilySubstitution{LGR}{clm2js}{lmss}
    \DeclareFontFamily{LGR}{clmjs}{}
    \DeclareFontFamilySubstitution{LGR}{clmjs}{lmss}
  }{}}
% \fi
```

A.4 Additional math fonts

Either load the MnSymbol package [6] or the the exscale package [11] in order to fix Latin Modern `lmex` fonts. Additionally, load the amssymb package [4] which provides further math symbols and also loads the amsfonts package [4].

```
  \ifhep@minion
    \RequirePackage{MnSymbol}
  \else
    \RequirePackage{exscale}
    \RequirePackage{amssymb}
  \fi
```

`\mathbf` Load the bm package [8] for superior boldmath. Make math symbols bold whenever they appear in bold macros such as `\section{`⟨*text*⟩`}`.

```
  \RequirePackage{bm}
  \AtBeginDocument{\let\mathbf\bm}
  \g@addto@macro\bfseries{\boldmath}
```

`\mathtt` Typewriter math font

```
    \DeclareMathAlphabet{\mathtt}{OT1}{lmtt}{m}{n}
    \SetMathAlphabet{\mathtt}{bold}{OT1}{lmtt}{bx}{n}
```

`\mathscr` Provid the `\mathscr` math script font from the MATHRSFS package [13].

```
    \DeclareMathAlphabet{\mathscr}{U}{rsfs}{m}{n}
```

`\mathbb` Redefine the the `\mathbb` math blackboard style font according to the (sans-)serif option with the font from the DSFONT package [5].

```
    \ifhep@minion
      \DeclareMathAlphabet{\mathbb}{U}{%
        \ifhepmathfont@serif dsrom\else dsss\fi%
      }{m}{n}
    \else
      \ifhep@ams\else
        \SetMathAlphabet{\mathbb}{normal}{U}{%
          \ifhepmathfont@serif dsrom\else dsss\fi%
        }{m}{n}
      \fi
    \fi
```

End of symbols conditional.

```
  \fi
```

End of xetex conditional.

```
\fi
```

</package>

B Tests

<*testserif|testsans>

```
\documentclass{article}

%<testserif>\usepackage[oldstyle]{hep-font}
%<testsans>\usepackage[oldstyle,sans]{hep-font}
\usepackage{hep-math-font}

\usepackage{fancyvrb}\DefineShortVerb{\|}
\newenvironment{vrb}{\begin{tabular}{@{}p{6cm}l@{}}}{\end{tabular}}

\begin{document}

\begin{vrb}
|| & $Ab\Gamma\delta123$ \\
|\mathbf | & $\mathbf{Ab\Gamma\delta123}$ \\
```

```
|\mathrm | & $\mathrm{Ab\Gamma\delta123}$ \\
|   \mathbf | & $\mathbfrm{Ab\Gamma\delta123}$ !! \\
|\text | & $\text{Ab\Gamma\delta123}$ \\
|   \textbf | & $\textbf{\text{Ab\Gamma\delta123}}$ \\
|\mathsf | & $\mathsf{Ab\Gamma\delta123}$ \\
|   \mathbf | & $\mathbfsf{Ab\Gamma\delta123}$ \\
|\mathtt | & $\mathtt{Ab\Gamma123}$ \\
|   \mathbf | & $\mathbf{\mathtt{Ab\Gamma123}}$ \\
|\mathcal | & $\mathcal{ABC}$ \\
|\mathscr | & $\mathscr{ABC123}$ \\
|\mathbb | & $\mathbb{ABC1}$ \\
|\mathfrak | & $\mathfrak{ABC123}$ \\
\end{vrb}

$\Gamma\Delta\Lambda\Phi\Pi\Psi\Sigma\Theta\Upsilon\Xi\Omega$

$\mathrm{\Gamma\Delta\Lambda\Phi\Pi\Psi\Sigma\Theta\Upsilon\Xi\Omega}$

\Gamma\Delta\Lambda\Phi\Pi\Psi\Sigma\Theta\Upsilon\Xi\Omega

$\alpha\beta\gamma\delta\epsilon\zeta\eta\theta\iota\kappa\lambda
\mu\nu\xi\pi\rho\sigma\varsigma\tau\upsilon\phi\chi\psi\omega$

$\mathrm{\alpha\beta\gamma\delta\epsilon\zeta\eta\theta\iota\kappa\lambda
\mu\nu\xi\pi\rho\sigma\varsigma\tau\upsilon\phi\chi\psi\omega}$

\alpha\beta\gamma\delta\epsilon\zeta\eta\theta\iota\kappa\lambda
\mu\nu\xi\pi\rho\sigma\varsigma\tau\upsilon\phi\chi\psi\omega

\end{document}
```

</testserif|testsans>

C Readme

<*readme>

```
# The ‘hep-math-font‘ package

Extended Greek and sans-serif math

## Introduction

The ‘hep-math-font‘ package adjust the math fonts to be sans-serif if the
document is sans-serif. Additionally Greek letters are redefined to be
always italic and upright in math and text mode respectively. Some math
font macros are adjusted to give more consistently the naively expected
results.

The package is loaded using ‘\usepackage{hep-math-font}‘.

```

```
## Author

Jan Hajer

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(at your option) any later version. The latest version of this license is
in ‘http://www.latex-project.org/lppl.txt‘ and version 1.3c or later is
part of all distributions of LaTeX version 2005/12/01 or later.
```

</readme>

References

[1] W. Schmidt. ‘The fixmath package for LaTeX 2ε: Make maths comply with ISO 31-0:1992 to ISO 31-13:1992’ (2000). CTAN: fixmath.

[2] G. Milde. ‘The textalpha package: LICR macros and encoding definition files for Greek’ (2010). CTAN: greek-fontenc.

[3] G. Milde. ‘The alphabeta package: LICR macros and encoding definition files for Greek’ (2013). CTAN: greek-fontenc.

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