

The **mathastext** package

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Abstract

The **mathastext** package¹ propagates the document *text* font to *mathematical* mode, for the letters of the Latin alphabet and, optionally, some further ASCII-127 characters. The idea is to produce handouts or research papers with a less book-like typography than what is typical of standard \TeX with the Computer Modern fonts. Hopefully, this will force the reader to concentrate more on the contents ;-). It also makes it possible (for a document with simple mathematics) to use a quite arbitrary font without worrying too much that it does not have specially designed accompanying math fonts. Also, **mathastext** provides a simple mechanism in order to use many different choices of (text hence, now, math) fonts in the same document (not that we recommend it!). A final aspect is that **mathastext** helps produce smaller PDF files.

Further documentation is available here:
<http://jf.burnol.free.fr/mathastext.html>

1 Introduction

mathastext was conceived as a result of frustration of distributing to students \TeX -crafted mathematical handouts with a subsequent realization that not much had made it to a semi-permanent brain location. So, I forced \LaTeX to produce material as if written on a primitive typewriter, a little bit like the good old seminar notes of the Cartan and Grothendieck days. Don't ask me if this helped, I have long since opted for a positive attitude in life.

The package **mathastext** is less extreme, but retains the idea of using inside mathematics the same font as is used for text for the letters of the Latin alphabet and the digits. By default the text font will also be used for:

`! ? * , . : ; + - = () [] / # $ % &`

and with option `alldelims` also for:

`< > | { } and \`

Introducing this option was made necessary by the absence in OT1-encoded fonts of these characters (except for mono-width fonts). It is suitable for most other text font encodings, such as T1.

If one wants to use Greek letters, then the default ones from Computer Modern are slanted, and do not mix well with the (typically) upright shape of the main document font (also they will generally look much lighter, in comparison). So there are options to take these glyphs either from the Euler font (**mathastext** does not load the package **eulervm** but uses the font definition file `uzeur.fd` from this package) or from the Postscript Symbol font (included in the basic $\text{\LaTeX} 2_{\epsilon}$ distribution). A command is provided to scale the chosen font by an arbitrary factor. Of course, it is also possible to access upright Greek letters via loading first specific packages providing math fonts, for example the **fourier** package (with option 'upright'). One just has to make sure to load **mathastext** as the last of the font-related packages.

As a convenience, **mathastext** provides an easy mechanism to use further 'math versions' than the default 'normal' and 'bold' from the standard \LaTeX . A command

¹The file `mathastext.dtx` has version number 1.0 and was last revised on 2011/01/25.

is provided to declare arbitrarily many fonts in the preamble, to be used later in the document. Switching the ‘math version’ in the document is now done with a command which allows an optional argument in order to also specify the new font to be used for the text.

A poor man `\pmvec` command is provided as the default `\vec` looks ugly on upright letters. Further, by default, this `\vec` accent from Computer Modern is overwritten with the one coming from the mathematics font of the `fourier` package.

With the option `symbolmax`, besides the Greek letters, also the characters which have been contaminated by `mathastext` (others than letters and digits) will be taken from the Symbol font, and use will be made of quite a number of further glyphs available from this font, including some basic mathematical arrows, as well as the sum and product signs. For documents with very simple needs in mathematical symbols, the options `symbolmax` and `alldelims` may give in the end a quite smaller PDF file, as the Computer Modern fonts, or whatever mathematical fonts initially loaded by packages for use in the document, may well be avoided altogether.

2 Commands

2.1 Preamble-only commands

Nothing is necessary besides loading `mathastext`, possibly with some customizing options (described next). The following commands provide enhancements to the basic use of the package.

- `\Mathastext`: reinitializes `mathastext` according to the current defaults of encoding, family, series and shape. It can also be preceded optionally by one or more of `\Mathastextencoding{<enc>}`, `\Mathastextfamily{<fam>}`, `\Mathastextseries{<ser>}`, `\Mathastextshape{<sh>}`.
- `\MathastextWillUse{<enc>}{<fam>}{<ser>}{<sh>}`: tells `mathastext` to use the font with the specified encoding, family, series, and shape for the letters and digits (and all other afflicted characters) in math mode.
- `\MathastextDeclareVersion{<name>}{<enc>}{<fam>}{<ser>}{<sh>}`: declares that the document will have access to the font with the specified characteristics, under the version name `<name>`. To be used in combination with the body command `\MathastextVersion[<nametext>]{<namemath>}`.
- `\Mathastextboldvariant{<var>}`: when used before `\Mathastext`, specifies which bold (`b`, `sb`, `bx`, ...) to be used by `\mathbf` (and `\boldmath`). Default is the `\bfdefault` at the time of loading `mathastext`. When used before the declaration of a version, decides the way `\mathbf` will act in this version.
- `\MathastextEulerScale{<factor>}`: scales the Euler font by `<factor>`.
- `\MathastextSymbolScale{<factor>}`: scales the Symbol font by `<factor>`.

2.2 Body commands

- `\MathastextVersion[<nametext>]{<namemath>}`: changes the math font, and optionally also the text font. To be used like the $\LaTeX 2_{\epsilon}$ command `\mathversion`, outside of mathematics mode. All further commands described here are math-only.

- `\pmvec`: this provides a poor man `\vec` accent command, suitable for upright characters. By default the original `\vec` is also replaced by a version using the arrow from the Fourier font.
- `\Mathnormal`, `\Mathrm`, `\Mathbf`: suitable modifications of the original `\mathnormal`, `\mathrm`, `\mathbf`. By default, the originals are also overwritten by the new commands.
- `\inodot`, `\jnodot`: the corresponding glyphs in the chosen font. By default, will overwrite `\imath` and `\jmath`.
- `\omicron`: provides access to the omicron glyph.
- `\MathastextEuler{⟨⟩}`: math alphabet to access all the glyphs of the Euler font, if option `eulergreek` (or `eulerdigits`) was passed to the package.
- `\MathastextSymbol{⟨⟩}`: math alphabet to access all the glyphs of the Symbol font, if loaded by one of the related options.
- see the documentation file `mathastext-doc.pdf` for the character commands made available when the Symbol font has been requested by one of the related options.

3 Options

- `basic`: only `mathastextify` letters and digits.
- `alldelims`: besides the default `! ? * , . : ; + - = () [] / # $ % &` treat also `< > | { }` and `\`. Not suitable for OT1-encoding.
- excluding options: `noexclam ! ? noasterisk * nopunct , . : ; noplusnominus + - noequal = noparenthesis () [] / nospecials # $ % &` and `nodigits`.
- `symbolgreek`, `symboldigits`: to let Greek letters (digits) use the Symbol font.
- `eulergreek`, `eulerdigits`: to let Greek letters (digits) use the Euler font.
- `selfGreek`: this is for a font which has the capital Greek letters at the OT1 slot positions.
- `mathaccents`: use the text font also for the math accents.
- `symbolre`: replaces `\Re` and `\Im` by Symbol glyphs and defines a `\DotTriangle` command.
- `symbolmisc`: takes quite a few glyphs, including logical arrows, product and sum signs from Symbol. You may consider `\renewcommand{\int}{\smallint}` to maximize still more the use of the Symbol font.
- `symbol`: combines `symbolgreek`, `symbolre`, and `symbolmisc`.
- `symbolmax`: same as `symbol` and furthermore the characters listed above are also taken from the Symbol font.

- `defaulttrm`, `defaultbf`, `defaultnormal`, `defaultimath`: self-explanatory.
- `defaultmathsizes`: `mathastext` opts for quite big subscripts (and, copied from the `moresize` package, redefines `\Huge` and defines `\HUGE`). Use this option to prevent it from doing so.

```
1 \NeedsTeXFormat{LaTeX2e}
2 \ProvidesFile{mathastext.sty}[2011/01/25 1.0 use text font also in math]
```

We turn off the official loggings as we intend to write our owns

```
3 \def\mt@font@info@off{
4 \let\m@stext@info\@font@info
5 \let\m@stext@warning\@font@warning
6 \let\@font@info\@gobble
7 \let\@font@warning\@gobble}
8 \def\mt@font@info@on{
9 \let\@font@info\m@stext@info
10 \let\@font@warning\m@stext@warning}
11 \mt@font@info@off
```

A number of ifs for treating (some among) the options

```
12 \newif\ifmt@need@euler\mt@need@eulerfalse
13 \newif\ifmt@need@symbol\mt@need@symbolfalse
14 \newif\ifmt@defaultvec\mt@defaultvecfalse
15 \newif\ifmt@defaultnormal\mt@defaultnormalfalse
16 \newif\ifmt@defaulttrm\mt@defaulttrmfalse
17 \newif\ifmt@defaultbf\mt@defaultbffalse
18 \newif\ifmt@defaultsizes\mt@defaultsizesfalse
19 \newif\ifmt@twelve\mt@twelvefalse
20 \newif\ifall@OTone
21 \newif\ifall@Tone
```

The options:

```
22 \DeclareOption{noparenthesis}{\let\mt@noparen\@empty}
23 \DeclareOption{nopunctuation}{\let\mt@nopunct\@empty}
24 \DeclareOption{noplusnominus}{\let\mt@noplusnominus\@empty}
25 \DeclareOption{noequal}{\let\mt@noequal\@empty}
26 \DeclareOption{noexclam}{\let\mt@noexclam\@empty}
27 \DeclareOption{noasterisk}{\let\mt@noast\@empty}
28 \DeclareOption{nospecials}{\let\mt@nospecials\@empty}
29 \DeclareOption{basic}{\ExecuteOptions{noparenthesis,%
30 nopunctuation,noplusnominus,noequal,noexclam,nospecials}}
31 \DeclareOption{nodigits}{\let\mt@nodigits\@empty}
32 \DeclareOption{defaultimath}{\let\mt@defaultimath\@empty}
33 \DeclareOption{alldelims}{\let\mt@alldelims\@empty}
34 \DeclareOption{mathaccents}{\let\mt@mathaccents\@empty}
35 \DeclareOption{selfgreek}{\let\mt@selfgreek\@empty}
36 \DeclareOption{selfgreek}{\let\mt@selfgreek\@empty}
37 \DeclareOption{symboldigits}{\mt@need@symboltrue
38 \let\mt@symboldigits\@empty}
39 \DeclareOption{symbolgreek}{\mt@need@symboltrue
40 \let\mt@symbolgreek\@empty}
41 \DeclareOption{symbolre}{\mt@need@symboltrue
42 \let\mt@symbolre\@empty}
43 \DeclareOption{symbolmisc}{\mt@need@symboltrue
44 \let\mt@symbolmisc\@empty}
```

```

45 \DeclareOption{symbol}{\ExecuteOptions{symbolgreek,symbolmisc,symbolre}}
46 \DeclareOption{symbolmax}{\ExecuteOptions{symbolgreek,symbolmisc,symbolre}}
47 \let\mt@symbolmax\@empty
48 \DeclareOption{eulerdigits}{\mt@need@eulertrue\let\mt@eulerdigits\@empty}
49 \DeclareOption{eulergreek}{\mt@need@eulertrue\let\mt@eulergreek\@empty}
50 \DeclareOption{defaultnormal}{\mt@defaultnormaltrue}
51 \DeclareOption{defaultrm}{\mt@defaultrmtrue}
52 \DeclareOption{defaultbf}{\mt@defaultbftrue}

We will change the default script and scriptscript sizes, and also we will declare a
\HUGE size and modify the \Huge one at 12pt (taken from the moresize package.)

53 \DeclareOption{defaultmathsizes}{\mt@defaultsizestrue}
54 \DeclareOption{12pt}{\mt@twelvetrue}
55 \DeclareOption{defaultvec}{\mt@defaultvectrue}
56 \DeclareOption*{\PackageWarning{mathastext}{Unknown option ‘\CurrentOption’}}
57 \ProcessOptions\relax

```

\pmvec Definition of a poor man version of the \vec accent

```

58 \DeclareRobustCommand\pmvec[1]{\mathord{\stackrel{\raisebox{-.5ex}{%
59 {\tiny\boldmath$\mathord{\rightarrow}$}}}{#1}}}

```

By default we pick a up the replacement for \vec from the Fourier font of Michel BOVANI.

```

60 \ifmt@defaultvec\else
61 \DeclareFontEncoding{FML}{\fml}{}
62 \DeclareFontSubstitution{FML}{\fml}{m}{it}
63 \DeclareSymbolFont{justepourvec}{FML}{\fml}{m}{it}
64 \SetSymbolFont{justepourvec}{bold}{FML}{\fml}{b}{it}
65 \DeclareMathAccent{\vec}{\mathord}{justepourvec}{"7E}
66 \fi

```

Internal variables and associated public macros.

```

67 \edef\m@stextenc{\encodingdefault}
68 \edef\m@stextfam{\familydefault}
69 \edef\m@stextser{\seriesdefault}
70 \edef\m@stextsh{\shapedefault}
71 \edef\m@stextbold{\bfdefault}
72 \DeclareRobustCommand\Mathastextencoding[1]{\edef\m@stextenc{#1}}
73 \DeclareRobustCommand\Mathastextfamily[1]{\edef\m@stextfam{#1}}
74 \DeclareRobustCommand\Mathastextseries[1]{\edef\m@stextser{#1}}
75 \DeclareRobustCommand\Mathastextshape[1]{\edef\m@stextsh{#1}}
76 \DeclareRobustCommand\Mathastextboldvariant[1]{\edef\m@stextbold{#1}}

```

In case we need the Euler font, we declare it here. It will use uzeur.fd from the eulervm package of Walter SCHMIDT

```

77 \ifmt@need@euler
78 \DeclareSymbolFont{mteulervm}{U}{zeur}{m}{n}
79 %% \SetSymbolFont{mteulervm}{bold}{U}{zeur}{\m@stextbold}{n}

```

In the end, I moved the above line to \Mathastext as the user may want his choice of boldvariant to have effect on the Euler font, but anyhow b=bx for uzeur.fd, so this is pour la beauté de l'Art (well it is also possible to use \Mathastextboldvariant to specify m for example). Also I do not see an easy way to have \mathbf act correctly simultaneously on the now two distinct fonts for a-Z and for \alpha-\omega. I know of a way (which would be to change mathcodes on the fly see my

post <http://tug.org/pipermail/texhax/2011-January/016605.html>) but this is a lot of work for a minuscule interest. If we had followed that route we would have had to also keep track of the choice of bold variant in the mechanism of `\MathastextVersion`, defined later in this code.

```
80 \DeclareSymbolFontAlphabet{\MathastextEuler}{mteulervm}
81 \fi
82 \newcommand\MathastextEulerScale[1]{\edef\zeu@Scale{#1}}
```

In case we need the Symbol font, we declare it here. The macro `\psy@scale` will be used to scale the font (see at the very end of this file).

```
83 \ifmt@need@symbol
84 \def\psy@scale{1}
85 \DeclareSymbolFont{mtpsymbol}{U}{psy}{m}{n}
86 %% \SetSymbolFont{mtpsymbol}{bold}{U}{psy}{\m@stextbold}{n}
```

We move the above line to `\Mathastext` in case the user has used `\Mathastextboldvariant`, but in fact there is no bold for the postscript Symbol font distributed with the L^AT_EX 2_ε package `psnffs`. So, this is again pour la beauté de l'Art.

```
87 \DeclareSymbolFontAlphabet{\MathastextSymbol}{mtpsymbol}
88 \fi
89 \newcommand\MathastextSymbolScale[1]{\edef\psy@scale{#1}}
```

Declaration of the current default font as our math font.

```
90 \DeclareSymbolFont{mtcurrentfont}
91 {\m@stextenc}{\m@stextfam}{\m@stextser}{\m@stextsh}
92 \DeclareSymbolFontAlphabet{\Mathnormal}{mtcurrentfont}
```

`\MathastextWillUse`

```
93 \DeclareRobustCommand\MathastextWillUse[4]{
94 \Mathastextencoding{#1}
95 \Mathastextfamily{#2}
96 \Mathastextseries{#3}
97 \Mathastextshape{#4}
98 \Mathastext}
```

`\Mathastext` The command `\Mathastext` can be called by the user anywhere in the preamble and any number of time, the last one is the one that counts.

```
99 \DeclareRobustCommand\Mathastext{
100 \mt@font@info@off
101 \def\tmp@a{OT1}
102 \def\tmp@b{T1}
103 \ifx\tmp@a\m@stextenc
104 \all@OTone>true\else\all@OTone>false\fi
105 \ifx\tmp@b\m@stextenc
106 \all@Tone>true\else\all@Tone>false\fi
107 \edef\mt@encoding@normal{\m@stextenc}
108 \edef\mt@family@normal{\m@stextfam}
109 \edef\mt@series@normal{\m@stextser}
110 \edef\mt@shape@normal{\m@stextsh}
111 \edef\mt@boldvariant@normal{\m@stextbold}
112 \edef\mt@encoding@bold{\m@stextenc}
113 \edef\mt@family@bold{\m@stextfam}
114 \edef\mt@series@bold{\m@stextbold}
115 \edef\mt@shape@bold{\m@stextsh}
```

```

116 \edef\mt@boldvariant@bold{\m@stextbold}
117 \SetSymbolFont{mtcurrentfont}{normal}{\mt@encoding@normal}
118                                     {\mt@family@normal}
119                                     {\mt@series@normal}
120                                     {\mt@shape@normal}
121 \SetSymbolFont{mtcurrentfont}{bold} {\mt@encoding@bold}
122                                     {\mt@family@bold}
123                                     {\mt@series@bold}
124                                     {\mt@shape@bold}
125 \DeclareMathAlphabet{\Mathbf} {\mt@encoding@bold}
126                               {\mt@family@bold}
127                               {\mt@series@bold}
128                               {\mt@shape@bold}
129 \ifmt@need@euler\SetSymbolFont{mteulervm}{bold}{U}{zeur}{\m@stextbold}{n}\fi
130 \ifmt@need@symbol\SetSymbolFont{mtpsymbol}{bold}{U}{psy}{\m@stextbold}{n}\fi
131 \typeout{** Latin letters in math versions normal (resp. bold) are now^^J%
132         ** set up to use fonts
133 \mt@encoding@normal/\mt@family@normal/\mt@series@normal(\m@stextbold)/\mt@shape@normal}
134 \mt@font@info@on
135 }

```

`\operator@font` We modify this L^AT_EX internal variable in order for the predefined `\cos`, `\sin`, etc...to be typeset with the `mathastext` font. This will also work for things declared through the `amsmath` package command `\DeclareMathOperator`. The alternative would have been to redefine the ‘operators’ Math Symbol Font. Obviously people who expect that `\operator@font` will always refer to the ‘operators’ font might be in for a surprise... well, we’ll see.

```

136 \def\operator@font{\mathgroup\symmtcurrentfont}

```

Initialization call:

```

137 \Mathastext
138 \newcommand{\Mathrm}{\Mathnormal}

```

We will access by default the `\omicron` via `\mathnormal`. So we save it for future use

```

139 \let\mt@saved@mathnormal\mathnormal

```

But unfortunately the Fourier package with the upright option does not have an upright omicron obtainable by simply typing `\mathnormal{o}`. So in this case we shall use `\mathrm` and not `\mathnormal`.

```

140 \ifpackageloaded{fourier}{\ifslowed\else\let\mt@saved@mathnormal\mathrm\fi}{\fi}

```

By default we redefine the normal, rm and bf alphabets.

```

141 \ifmt@defaultnormal\else\renewcommand{\mathnormal}{\Mathnormal}\fi
142 \ifmt@defaulttrm\else\renewcommand{\mathrm}{\Mathrm}\fi
143 \ifmt@defaultbf\else\renewcommand{\mathbf}{\Mathbf}\fi

```

We write appropriate messages to the terminal and the log.

```

144 \ifx\mt@symbolgreek\@empty
145 \typeout{** Greek letters will use the PostScript Symbol font. Use^^J%
146 ** \protect\MathastextSymbolScale{factor} to scale the font by <factor>..}
147 \fi
148 \ifx\mt@eulergreek\@empty
149 \typeout{** Greek letters will use the Euler font. Use^^J%
150 ** \protect\MathastextEulerScale{factor} to scale the font by <factor>..}

```

```

151 \fi
152 \ifx\mt@selfGreek\@empty
153 \typeout{** Capital Greek letters from the fonts declared for latin letters:^^J%
154 ** only for OT1 or compatible encodings; glyphs may be unavailable.}
155 \fi

```

The `\MathastextDeclareVersion` command is to be used in the preamble to declare a math version. I refrained from providing a more complicated one which would also specify a choice of series for the Euler and Symbol font: anyhow Symbol only has the medium series, and Euler has medium and bold, so what is lacking is the possibility to create a version with a bold Euler. There is already one such version: the default bold one. And there is always the possibility to add to the preamble a suitable `\SetSymbolFont{mteulervm}{name_of_version}{U}{zeur}{bx}{n}`

```

156 \DeclareRobustCommand\MathastextDeclareVersion[5]{
157   \mt@font@info@off
158   \update@the@ifs{#2}
159   \DeclareMathVersion{#1}
160   \SetSymbolFont{mtcurrentfont}{#1}{#2}{#3}{#4}{#5}
161   \SetMathAlphabet{\Mathbf}{#1}{#2}{#3}{\m@stextbold}{#5}
162   \edef\mt@tmp{@#1}
163   \expandafter\edef\csname mt@encoding\mt@tmp\endcsname{#2}
164   \expandafter\edef\csname mt@family\mt@tmp\endcsname{#3}
165   \expandafter\edef\csname mt@series\mt@tmp\endcsname{#4}
166   \expandafter\edef\csname mt@shape\mt@tmp\endcsname{#5}
167   \expandafter\edef\csname mt@boldvariant\mt@tmp\endcsname{\m@stextbold}
168   \typeout{** Latin letters in math version ‘#1’ will use fonts
169     #2/#3/#4(\m@stextbold)/#5}
170   \mt@font@info@on
171 }

```

`\MathastextVersion` This is a wrapper around L^AT_EX's `\mathversion`: here we have an optional argument allowing a quick and easy change of the text font.

```

172 \DeclareRobustCommand\MathastextVersion[2][\@empty]{%
173   \mathversion{#2}%
174   \edef\mt@tmp{@#1}%
175   \ifx\@empty#1\else%
176     \usefont{\csname mt@encoding\mt@tmp\endcsname}%
177       {\csname mt@family\mt@tmp\endcsname}%
178       {\csname mt@series\mt@tmp\endcsname}%
179       {\csname mt@shape\mt@tmp\endcsname}%
180     \edef\mt@@encoding{\csname mt@encoding\mt@tmp\endcsname}%
181     \renewcommand{\encodingdefault}{\mt@@encoding}%
182     \edef\mt@@family{\csname mt@family\mt@tmp\endcsname}%
183     \renewcommand{\rmdefault}{\mt@@family}%
184     \edef\mt@@series{\csname mt@series\mt@tmp\endcsname}%
185     \renewcommand{\mddefault}{\mt@@series}%
186     \edef\mt@@shape{\csname mt@shape\mt@tmp\endcsname}%
187     \renewcommand{\updefault}{\mt@@shape}%
188     \edef\mt@@boldvariant{\csname mt@boldvariant\mt@tmp\endcsname}%
189     \renewcommand{\bfdefault}{\mt@@boldvariant}%
190 \fi}

```

We try to keep tracks of the font encodings, as it affects choices of character slots for the math accents, `\imath`, and the capital Greek letters (in case the option

selfGreek was passed)

```

191 \newcommand\update@the@ifs[1]{
192   \edef\tmp@enc{#1}
193   \def\tmp@a{OT1}\ifall@OTone\ifx\tmp@a\tmp@enc\else\all@OTonefalse\fi\fi
194   \def\tmp@b{T1}\ifall@Tone\ifx\tmp@b\tmp@enc\else\all@Tonefalse\fi\fi
195 }

```

At last we now switch font for the letters of the latin alphabet. The font mtcurentfont will be reaffected by any \MathastextVersion call after \begindocument

```

196 \DeclareMathSymbol{a}{\mathalpha}{mtcurrentfont}{‘a}
197 \DeclareMathSymbol{b}{\mathalpha}{mtcurrentfont}{‘b}
198 \DeclareMathSymbol{c}{\mathalpha}{mtcurrentfont}{‘c}
199 \DeclareMathSymbol{d}{\mathalpha}{mtcurrentfont}{‘d}
200 \DeclareMathSymbol{e}{\mathalpha}{mtcurrentfont}{‘e}
201 \DeclareMathSymbol{f}{\mathalpha}{mtcurrentfont}{‘f}
202 \DeclareMathSymbol{g}{\mathalpha}{mtcurrentfont}{‘g}
203 \DeclareMathSymbol{h}{\mathalpha}{mtcurrentfont}{‘h}
204 \DeclareMathSymbol{i}{\mathalpha}{mtcurrentfont}{‘i}
205 \DeclareMathSymbol{j}{\mathalpha}{mtcurrentfont}{‘j}
206 \DeclareMathSymbol{k}{\mathalpha}{mtcurrentfont}{‘k}
207 \DeclareMathSymbol{l}{\mathalpha}{mtcurrentfont}{‘l}
208 \DeclareMathSymbol{m}{\mathalpha}{mtcurrentfont}{‘m}
209 \DeclareMathSymbol{n}{\mathalpha}{mtcurrentfont}{‘n}
210 \DeclareMathSymbol{o}{\mathalpha}{mtcurrentfont}{‘o}
211 \DeclareMathSymbol{p}{\mathalpha}{mtcurrentfont}{‘p}
212 \DeclareMathSymbol{q}{\mathalpha}{mtcurrentfont}{‘q}
213 \DeclareMathSymbol{r}{\mathalpha}{mtcurrentfont}{‘r}
214 \DeclareMathSymbol{s}{\mathalpha}{mtcurrentfont}{‘s}
215 \DeclareMathSymbol{t}{\mathalpha}{mtcurrentfont}{‘t}
216 \DeclareMathSymbol{u}{\mathalpha}{mtcurrentfont}{‘u}
217 \DeclareMathSymbol{v}{\mathalpha}{mtcurrentfont}{‘v}
218 \DeclareMathSymbol{w}{\mathalpha}{mtcurrentfont}{‘w}
219 \DeclareMathSymbol{x}{\mathalpha}{mtcurrentfont}{‘x}
220 \DeclareMathSymbol{y}{\mathalpha}{mtcurrentfont}{‘y}
221 \DeclareMathSymbol{z}{\mathalpha}{mtcurrentfont}{‘z}
222 \DeclareMathSymbol{A}{\mathalpha}{mtcurrentfont}{‘A}
223 \DeclareMathSymbol{B}{\mathalpha}{mtcurrentfont}{‘B}
224 \DeclareMathSymbol{C}{\mathalpha}{mtcurrentfont}{‘C}
225 \DeclareMathSymbol{D}{\mathalpha}{mtcurrentfont}{‘D}
226 \DeclareMathSymbol{E}{\mathalpha}{mtcurrentfont}{‘E}
227 \DeclareMathSymbol{F}{\mathalpha}{mtcurrentfont}{‘F}
228 \DeclareMathSymbol{G}{\mathalpha}{mtcurrentfont}{‘G}
229 \DeclareMathSymbol{H}{\mathalpha}{mtcurrentfont}{‘H}
230 \DeclareMathSymbol{I}{\mathalpha}{mtcurrentfont}{‘I}
231 \DeclareMathSymbol{J}{\mathalpha}{mtcurrentfont}{‘J}
232 \DeclareMathSymbol{K}{\mathalpha}{mtcurrentfont}{‘K}
233 \DeclareMathSymbol{L}{\mathalpha}{mtcurrentfont}{‘L}
234 \DeclareMathSymbol{M}{\mathalpha}{mtcurrentfont}{‘M}
235 \DeclareMathSymbol{N}{\mathalpha}{mtcurrentfont}{‘N}
236 \DeclareMathSymbol{O}{\mathalpha}{mtcurrentfont}{‘O}
237 \DeclareMathSymbol{P}{\mathalpha}{mtcurrentfont}{‘P}
238 \DeclareMathSymbol{Q}{\mathalpha}{mtcurrentfont}{‘Q}
239 \DeclareMathSymbol{R}{\mathalpha}{mtcurrentfont}{‘R}
240 \DeclareMathSymbol{S}{\mathalpha}{mtcurrentfont}{‘S}

```

```

241 \DeclareMathSymbol{T}{\mathalpha}{mtcurrentfont}{'T}
242 \DeclareMathSymbol{U}{\mathalpha}{mtcurrentfont}{'U}
243 \DeclareMathSymbol{V}{\mathalpha}{mtcurrentfont}{'V}
244 \DeclareMathSymbol{W}{\mathalpha}{mtcurrentfont}{'W}
245 \DeclareMathSymbol{X}{\mathalpha}{mtcurrentfont}{'X}
246 \DeclareMathSymbol{Y}{\mathalpha}{mtcurrentfont}{'Y}
247 \DeclareMathSymbol{Z}{\mathalpha}{mtcurrentfont}{'Z}
248 \ifx\mt@nodigits\@empty\else
249 \def\mt@font@tbu{mtcurrentfont}

```

In fact, I think I should have changed the types of the digits to `mathord` when they are not picked from `mtcurrentfont`. Well let's leave it this way for today.

```

250 \ifx\mt@symboldigits\@empty \def\mt@font@tbu{mtpsymbol} \fi
251 \ifx\mt@eulerdigits\@empty \def\mt@font@tbu{mteulervm} \fi
252 \DeclareMathSymbol{0}{\mathalpha}{\mt@font@tbu}{'0}
253 \DeclareMathSymbol{1}{\mathalpha}{\mt@font@tbu}{'1}
254 \DeclareMathSymbol{2}{\mathalpha}{\mt@font@tbu}{'2}
255 \DeclareMathSymbol{3}{\mathalpha}{\mt@font@tbu}{'3}
256 \DeclareMathSymbol{4}{\mathalpha}{\mt@font@tbu}{'4}
257 \DeclareMathSymbol{5}{\mathalpha}{\mt@font@tbu}{'5}
258 \DeclareMathSymbol{6}{\mathalpha}{\mt@font@tbu}{'6}
259 \DeclareMathSymbol{7}{\mathalpha}{\mt@font@tbu}{'7}
260 \DeclareMathSymbol{8}{\mathalpha}{\mt@font@tbu}{'8}
261 \DeclareMathSymbol{9}{\mathalpha}{\mt@font@tbu}{'9}
262 \fi

```

When `symbolmax` is passed as an option, we use the `Symbol` font also for the typographical characters

```

263 \ifx\mt@symbolmax\@empty
264 \def\mt@font@tbu{mtpsymbol}
265 \else
266 \def\mt@font@tbu{mtcurrentfont}
267 \fi
268 \ifx\mt@noexclam\@empty\else
269 \DeclareMathSymbol{!}{\mathclose}{\mt@font@tbu}{"21}
270 \DeclareMathSymbol{?}{\mathclose}{\mt@font@tbu}{"3F}
271 \fi
272 \ifx\mt@noast\@empty\else
273 \DeclareMathSymbol{*}{\mathalpha}{\mt@font@tbu}{"2A}
274 \fi

```

We completely renounced to try to do things with all the various dots, they are defined in too many different ways, and there is the `amsmath` also. Better to leave the user use the `mathdots` package and accept that we can not avoid the default fonts in that case. So here I just treat .

```

275 \ifx\mt@nopunct\@empty\else
276 \DeclareMathSymbol{,}{\mathpunct}{\mt@font@tbu}{"2C}
277 \DeclareMathSymbol{.}{\mathord}{\mt@font@tbu}{"2E}
278 \DeclareMathSymbol{:}{\mathrel}{\mt@font@tbu}{"3A}
279 \@ifpackageloaded{amsmath}
280 {}
281 {\let\colon\undefined
282 \DeclareMathSymbol{:}{\mathpunct}{\mt@font@tbu}{"3A}}
283 \DeclareMathSymbol{;}{\mathpunct}{\mt@font@tbu}{"3B}
284 \fi

```

The slot assignments here are for OT1. They will perhaps be changed to T1 when we reach AtBeginDocument.

```

285 \DeclareMathSymbol{\inodot}{\mathord}{\mtcurrentfont}{10}
286 \DeclareMathSymbol{\jnodot}{\mathord}{\mtcurrentfont}{11}
287 \ifx\mt@defaultmath\@empty\else
288     \renewcommand{\imath}{\inodot}
289     \renewcommand{\jmath}{\jnodot}
290 \fi

```

`\relbar` Due to the way `=` and `-` are used by L^AT_EX in arrows, we have to redefine `\Relbar`
`\Relbar` and `\relbar` in order for them to preserve their original meanings.

```

291 \ifx\mt@noplusnominus\@empty\else
292 \edef\mt@minus@sign{\expandafter\mathchar\number\mathcode'\-}
293 \def\relbar{\mathrel{\smash\mt@minus@sign}}
294 \def\rightarrowfill{\mathrel{\mathchar\mt@minus@sign\mkern-7mu%
295     \cleaders\hbox{$\mkern-2mu\mt@minus@sign\mkern-2mu$}\hfill
296     \mkern-7mu\mathord\rightarrow}}
297 \def\leftarrowfill{\mathrel{\mathchar\mathord\leftarrow\mkern-7mu%
298     \cleaders\hbox{$\mkern-2mu\mt@minus@sign\mkern-2mu$}\hfill
299     \mkern-7mu\smash\mt@minus@sign}}
300 \DeclareMathSymbol{+}{\mathbin}{\mt@font@tbu}{2B}
301 \DeclareMathSymbol{-}{\mathbin}{\mt@font@tbu}{2D}
302 \fi
303 \ifx\mt@noequal\@empty\else
304 \edef\mt@equal@sign{\expandafter\mathchar\number\mathcode'\=}
305 \DeclareRobustCommand\Relbar{\mathrel{\mt@equal@sign}}
306 \DeclareMathSymbol{=}{\mathrel}{\mt@font@tbu}{3D}
307 \fi
308 \ifx\mt@noparen\@empty\else
309 \DeclareMathDelimiter{({\mathopen}{\mt@font@tbu}{28}{largesymbols}{00}
310 \DeclareMathDelimiter{)}{\mathclose}{\mt@font@tbu}{29}{largesymbols}{01}
311 \DeclareMathDelimiter{[}{\mathopen}{\mt@font@tbu}{5B}{largesymbols}{02}
312 \DeclareMathDelimiter{]}\mathclose}{\mt@font@tbu}{5D}{largesymbols}{03}
313 \DeclareMathDelimiter{/}{\mathord}{\mt@font@tbu}{2F}{largesymbols}{0E}
314 \DeclareMathSymbol{/}{\mathord}{\mt@font@tbu}{2F}
315 \fi
316 \ifx\mt@alldelims\@empty
317 \DeclareMathDelimiter{<}{\mathopen}{\mt@font@tbu}{3C}{largesymbols}{0A}
318 \DeclareMathDelimiter{>}{\mathclose}{\mt@font@tbu}{3E}{largesymbols}{0B}
319 \DeclareMathSymbol{<}{\mathrel}{\mt@font@tbu}{3C}
320 \DeclareMathSymbol{>}{\mathrel}{\mt@font@tbu}{3E}

```

There is no backslash in the Symbol font

```

321 \expandafter\DeclareMathDelimiter\@backslashchar
322     {\mathord}{\mtcurrentfont}{5C}{largesymbols}{0F}
323 \DeclareMathDelimiter{\backslash}
324     {\mathord}{\mtcurrentfont}{5C}{largesymbols}{0F}
325 \DeclareMathSymbol{\setminus\mathbin}{\mtcurrentfont}{5C}
326 \DeclareMathSymbol{|}{\mathord}{\mt@font@tbu}{7C}
327 \DeclareMathDelimiter{|}{\mt@font@tbu}{7C}{largesymbols}{0C}

```

I stopped short of redeclaring also `\Vert`!

```

328 \DeclareMathDelimiter\vert
329     {\mathord}{\mt@font@tbu}{7C}{largesymbols}{0C}

```

```

330 \DeclareMathSymbol\mid\mathrel{\mt@font@tbu}{7C}
331 \DeclareMathDelimiter{\lbrace}
332   {\mathopen}{\mt@font@tbu}{7B}{largesymbols}{08}
333 \DeclareMathDelimiter{\rbrace}
334   {\mathclose}{\mt@font@tbu}{7D}{largesymbols}{09}
335 \fi

```

We never take the specials from the Symbol (Adobe) font, as they are not all available there.

```

336 \ifx\mt@nospecials\empty\else
337 \renewcommand{\#}{\ifmode\edef\ms@tmp{7\the\symmtcurrentfont23}%
338 \mathchar\expandafter"\ms@tmp\relax\else\char"23\relax\fi}
339 \renewcommand{\$}{\ifmode\edef\ms@tmp{7\the\symmtcurrentfont24}%
340 \mathchar\expandafter"\ms@tmp\relax\else\char"24\relax\fi}
341 \renewcommand{\%}{\ifmode\edef\ms@tmp{7\the\symmtcurrentfont25}%
342 \mathchar\expandafter"\ms@tmp\relax\else\char"25\relax\fi}
343 \renewcommand{\&}{\ifmode\edef\ms@tmp{7\the\symmtcurrentfont26}%
344 \mathchar\expandafter"\ms@tmp\relax\else\char"26\relax\fi}
345 \fi

```

We construct (with some effort) some longarrows from the Symbol glyphs, of almost the same lengths as the standard ones. By the way, I always found the `\iff` to be too wide, but I follow here the default. Also, although there is a `\longmapsto` in standard L^AT_EX, if I am not mistaken, there is no `\longto`. So I define one here. I could not construct in the same manner `\Longrightarrow` etc. . . as the = sign from Symbol does not combine easily with the logical arrows, well, I could have done some box manipulations, but well, life is finite.

```

346 \ifx\mt@symbolmisc\empty
347 \let\prod\undefined
348 \DeclareMathSymbol{\prod}{\mathop}{mtpsymbol}{213}
349 \let\sum\undefined
350 \DeclareMathSymbol{\sum}{\mathop}{mtpsymbol}{229}
351 \DeclareMathSymbol{\mt@implies}{\mathrel}{mtpsymbol}{222}
352 \DeclareRobustCommand{\implies}{\;\;\mt@implies\;}
353 \DeclareMathSymbol{\mt@impliedby}{\mathrel}{mtpsymbol}{220}
354 \DeclareRobustCommand{\impliedby}{\;\;\mt@impliedby\;}
355 \DeclareRobustCommand{\iff}{\;\;\mt@impliedby\mathrel{\mkern-3mu}\mt@implies\;}
356 \DeclareMathSymbol{\mt@iff}{\mathrel}{mtpsymbol}{219}
357 \DeclareRobustCommand{\shortiff}{\;\;\mt@iff\;}
358 \DeclareMathSymbol{\mt@to}{\mathrel}{mtpsymbol}{174}
359 \DeclareMathSymbol{\mt@trait}{\mathrel}{mtpsymbol}{190}
360 \DeclareRobustCommand\to{\mt@to}
361 \DeclareRobustCommand\longto{\mkern2mu\mt@trait\mathrel{\mkern-10mu}\mt@to}
362 \DeclareRobustCommand\mapsto{\mapstochar\mathrel{\mkern0.2mu}\mt@to}
363 \DeclareRobustCommand\longmapsto{\%
364 \mapstochar\mathrel{\mkern2mu}\mt@trait\mathrel{\mkern-10mu}\mt@to}
365 \DeclareMathSymbol{\aleph}{\mathord}{mtpsymbol}{192}
366 \DeclareMathSymbol{\infty}{\mathord}{mtpsymbol}{165}
367 \DeclareMathSymbol{\emptyset}{\mathord}{mtpsymbol}{198}
368 \let\varnothing\emptyset
369 \DeclareMathSymbol{\nabla}{\mathord}{mtpsymbol}{209}
370 \DeclareMathSymbol{\surd}{\mathop}{mtpsymbol}{214}
371 \let\angle\undefined
372 \DeclareMathSymbol{\angle}{\mathord}{mtpsymbol}{208}
373 \DeclareMathSymbol{\forall}{\mathord}{mtpsymbol}{34}

```

```

374 \DeclareMathSymbol{\exists}{\mathord}{mtpsymbol}{36}
375 \DeclareMathSymbol{\neg}{\mathord}{mtpsymbol}{216}
376 \DeclareMathSymbol{\clubsuit}{\mathord}{mtpsymbol}{167}
377 \DeclareMathSymbol{\diamondsuit}{\mathord}{mtpsymbol}{168}
378 \DeclareMathSymbol{\heartsuit}{\mathord}{mtpsymbol}{169}
379 \DeclareMathSymbol{\spadesuit}{\mathord}{mtpsymbol}{170}
380 \DeclareMathSymbol{\smallint}{\mathop}{mtpsymbol}{242}
381 \DeclareMathSymbol{\wedge}{\mathbin}{mtpsymbol}{217}
382 \DeclareMathSymbol{\vee}{\mathbin}{mtpsymbol}{218}
383 \DeclareMathSymbol{\cap}{\mathbin}{mtpsymbol}{199}
384 \DeclareMathSymbol{\cup}{\mathbin}{mtpsymbol}{200}
385 \DeclareMathSymbol{\bullet}{\mathbin}{mtpsymbol}{183}
386 \DeclareMathSymbol{\div}{\mathbin}{mtpsymbol}{184}
387 \DeclareMathSymbol{\otimes}{\mathbin}{mtpsymbol}{196}
388 \DeclareMathSymbol{\oplus}{\mathbin}{mtpsymbol}{197}
389 \DeclareMathSymbol{\pm}{\mathbin}{mtpsymbol}{177}
390 \DeclareMathSymbol{*}{\mathbin}{mtpsymbol}{42}
391 \DeclareMathSymbol{\ast}{\mathbin}{mtpsymbol}{42}
392 \DeclareMathSymbol{\times}{\mathbin}{mtpsymbol}{180}
393 \DeclareMathSymbol{\propto}{\mathrel}{mtpsymbol}{181}
394 \DeclareMathSymbol{\mid}{\mathrel}{mtpsymbol}{124}
395 \DeclareMathSymbol{\leq}{\mathrel}{mtpsymbol}{163}
396 \DeclareMathSymbol{\geq}{\mathrel}{mtpsymbol}{179}
397 \DeclareMathSymbol{\approx}{\mathrel}{mtpsymbol}{187}
398 \DeclareMathSymbol{\supset}{\mathrel}{mtpsymbol}{201}
399 \DeclareMathSymbol{\subset}{\mathrel}{mtpsymbol}{204}
400 \DeclareMathSymbol{\supseteq}{\mathrel}{mtpsymbol}{202}
401 \DeclareMathSymbol{\subseteq}{\mathrel}{mtpsymbol}{205}
402 \DeclareMathSymbol{\in}{\mathrel}{mtpsymbol}{206}
403 \DeclareMathSymbol{\sim}{\mathrel}{mtpsymbol}{126}
404 \let\cong\undefined
405 \DeclareMathSymbol{\cong}{\mathrel}{mtpsymbol}{64}
406 \DeclareMathSymbol{\perp}{\mathrel}{mtpsymbol}{94}
407 \DeclareMathSymbol{\equiv}{\mathrel}{mtpsymbol}{186}
408 \let\notin\undefined
409 \DeclareMathSymbol{\notin}{\mathrel}{mtpsymbol}{207}
410 \DeclareMathDelimiter{\rangle}
411   {\mathclose}{mtpsymbol}{241}{largesymbols}{"0B}
412 \DeclareMathDelimiter{\langle}
413   {\mathopen}{mtpsymbol}{225}{largesymbols}{"0A}
414 \fi

```

I like the `\Re` and `\Im` from `Symbol`, so I overwrite the CM ones.

```

415 \ifx\mt@symbolre\@empty
416 \DeclareMathSymbol{\Re}{\mathord}{mtpsymbol}{"C2}
417 \DeclareMathSymbol{\Im}{\mathord}{mtpsymbol}{"C1}
418 \DeclareMathSymbol{\DotTriangle}{\mathord}{mtpsymbol}{92}
419 \fi

selfGreek > eulergreek > symbolgreek

420 \ifx\mt@selfGreek\@empty
421 \DeclareMathSymbol{\Gamma}{\mathalpha}{mtcurrentfont}{"00}
422 \DeclareMathSymbol{\Delta}{\mathalpha}{mtcurrentfont}{"01}
423 \DeclareMathSymbol{\Theta}{\mathalpha}{mtcurrentfont}{"02}
424 \DeclareMathSymbol{\Lambda}{\mathalpha}{mtcurrentfont}{"03}

```

```

425 \DeclareMathSymbol{\Xi}{\mathalpha}{mtcurrentfont}{"04}
426 \DeclareMathSymbol{\Pi}{\mathalpha}{mtcurrentfont}{"05}
427 \DeclareMathSymbol{\Sigma}{\mathalpha}{mtcurrentfont}{"06}
428 \DeclareMathSymbol{\Upsilon}{\mathalpha}{mtcurrentfont}{"07}
429 \DeclareMathSymbol{\Phi}{\mathalpha}{mtcurrentfont}{"08}
430 \DeclareMathSymbol{\Psi}{\mathalpha}{mtcurrentfont}{"09}
431 \DeclareMathSymbol{\Omega}{\mathalpha}{mtcurrentfont}{"0A}
432 \else
433 \ifx\mt@eulergreek\@empty
434 \DeclareMathSymbol{\Gamma}{\mathord}{mteulervm}{"00}
435 \DeclareMathSymbol{\Delta}{\mathord}{mteulervm}{"01}
436 \DeclareMathSymbol{\Theta}{\mathord}{mteulervm}{"02}
437 \DeclareMathSymbol{\Lambda}{\mathord}{mteulervm}{"03}
438 \DeclareMathSymbol{\Xi}{\mathord}{mteulervm}{"04}
439 \DeclareMathSymbol{\Pi}{\mathord}{mteulervm}{"05}
440 \DeclareMathSymbol{\Sigma}{\mathord}{mteulervm}{"06}
441 \DeclareMathSymbol{\Upsilon}{\mathord}{mteulervm}{"07}
442 \DeclareMathSymbol{\Phi}{\mathord}{mteulervm}{"08}
443 \DeclareMathSymbol{\Psi}{\mathord}{mteulervm}{"09}
444 \DeclareMathSymbol{\Omega}{\mathord}{mteulervm}{"0A}
445 \else
446 \ifx\mt@symbolgreek\@empty
447 \DeclareMathSymbol{\Gamma}{\mathord}{mtpsymbol}{"47}
448 \DeclareMathSymbol{\Delta}{\mathord}{mtpsymbol}{"44}
449 \DeclareMathSymbol{\Theta}{\mathord}{mtpsymbol}{"51}
450 \DeclareMathSymbol{\Lambda}{\mathord}{mtpsymbol}{"4C}
451 \DeclareMathSymbol{\Xi}{\mathord}{mtpsymbol}{"59}
452 \DeclareMathSymbol{\Pi}{\mathord}{mtpsymbol}{"50}
453 \DeclareMathSymbol{\Sigma}{\mathord}{mtpsymbol}{"53}
454 \DeclareMathSymbol{\Upsilon}{\mathord}{mtpsymbol}{"A1}
455 \DeclareMathSymbol{\Phi}{\mathord}{mtpsymbol}{"46}
456 \DeclareMathSymbol{\Psi}{\mathord}{mtpsymbol}{"59}
457 \DeclareMathSymbol{\Omega}{\mathord}{mtpsymbol}{"57}
458 \fi\fi\fi

```

The omicron requires special treatment. By default we pick it from the (unmodified) normal alphabet, with the special adjustment if `fourier` was loaded in `upright` variant.

There is a slight difference regarding Euler and Symbol with respect to the available var-letters. We include one or two things like the `wp` and the `partial`.

It would not make sense to declare the Greek letters to be `mathalpha` as the alphabet changing commands like `\mathbf` can not at the same time use the bold variant of `mtcurrentfont` and the bold variant of the font for these letters. So, I think it is better to let them be of type `mathord`.

```

459 \let\omicron\undefined
460 \newcommand\omicron{\mt@saved@mathnormal{o}}
461 \ifx\mt@eulergreek\@empty
462 \DeclareMathSymbol{\alpha}{\mathord}{mteulervm}{"0B}
463 \DeclareMathSymbol{\beta}{\mathord}{mteulervm}{"0C}
464 \DeclareMathSymbol{\gamma}{\mathord}{mteulervm}{"0D}
465 \DeclareMathSymbol{\delta}{\mathord}{mteulervm}{"0E}
466 \DeclareMathSymbol{\epsilon}{\mathord}{mteulervm}{"0F}
467 \DeclareMathSymbol{\zeta}{\mathord}{mteulervm}{"10}
468 \DeclareMathSymbol{\eta}{\mathord}{mteulervm}{"11}

```

```

469 \DeclareMathSymbol{\theta} {\mathord}{\mteulervm}{12}
470 \DeclareMathSymbol{\iota} {\mathord}{\mteulervm}{13}
471 \DeclareMathSymbol{\kappa} {\mathord}{\mteulervm}{14}
472 \DeclareMathSymbol{\lambda} {\mathord}{\mteulervm}{15}
473 \DeclareMathSymbol{\mu} {\mathord}{\mteulervm}{16}
474 \DeclareMathSymbol{\nu} {\mathord}{\mteulervm}{17}
475 \DeclareMathSymbol{\xi} {\mathord}{\mteulervm}{18}
476 \renewcommand{\omicron}{\mathord{\MathastextEuler{o}}}
477 \DeclareMathSymbol{\pi} {\mathord}{\mteulervm}{19}
478 \DeclareMathSymbol{\rho} {\mathord}{\mteulervm}{1A}
479 \DeclareMathSymbol{\sigma} {\mathord}{\mteulervm}{1B}
480 \DeclareMathSymbol{\tau} {\mathord}{\mteulervm}{1C}
481 \DeclareMathSymbol{\upsilon} {\mathord}{\mteulervm}{1D}
482 \DeclareMathSymbol{\phi} {\mathord}{\mteulervm}{1E}
483 \DeclareMathSymbol{\chi} {\mathord}{\mteulervm}{1F}
484 \DeclareMathSymbol{\psi} {\mathord}{\mteulervm}{20}
485 \DeclareMathSymbol{\omega} {\mathord}{\mteulervm}{21}
486 \DeclareMathSymbol{\varepsilon} {\mathord}{\mteulervm}{22}
487 \DeclareMathSymbol{\vartheta} {\mathord}{\mteulervm}{23}
488 \DeclareMathSymbol{\varpi} {\mathord}{\mteulervm}{24}
489 \let\varrho=\rho
490 \let\varsigma=\sigma
491 \DeclareMathSymbol{\varphi} {\mathord}{\mteulervm}{27}
492 \DeclareMathSymbol{\partial} {\mathord}{\mteulervm}{40}
493 \DeclareMathSymbol{\wp} {\mathord}{\mteulervm}{7D}
494 \DeclareMathSymbol{\ell} {\mathord}{\mteulervm}{60}
495 \else
496 \ifx\mt@symbolgreek\@empty
497 \DeclareMathSymbol{\alpha} {\mathord}{\mtpsymbol}{61}
498 \DeclareMathSymbol{\beta} {\mathord}{\mtpsymbol}{62}
499 \DeclareMathSymbol{\gamma} {\mathord}{\mtpsymbol}{67}
500 \DeclareMathSymbol{\delta} {\mathord}{\mtpsymbol}{64}
501 \DeclareMathSymbol{\epsilon} {\mathord}{\mtpsymbol}{65}
502 \DeclareMathSymbol{\zeta} {\mathord}{\mtpsymbol}{7A}
503 \DeclareMathSymbol{\eta} {\mathord}{\mtpsymbol}{68}
504 \DeclareMathSymbol{\theta} {\mathord}{\mtpsymbol}{71}
505 \DeclareMathSymbol{\iota} {\mathord}{\mtpsymbol}{69}
506 \DeclareMathSymbol{\kappa} {\mathord}{\mtpsymbol}{6B}
507 \DeclareMathSymbol{\lambda} {\mathord}{\mtpsymbol}{6C}
508 \DeclareMathSymbol{\mu} {\mathord}{\mtpsymbol}{6D}
509 \DeclareMathSymbol{\nu} {\mathord}{\mtpsymbol}{6E}
510 \DeclareMathSymbol{\xi} {\mathord}{\mtpsymbol}{78}
511 \renewcommand{\omicron}{\mathord{\MathastextSymbol{o}}}
512 \DeclareMathSymbol{\pi} {\mathord}{\mtpsymbol}{70}
513 \DeclareMathSymbol{\rho} {\mathord}{\mtpsymbol}{72}
514 \DeclareMathSymbol{\sigma} {\mathord}{\mtpsymbol}{73}
515 \DeclareMathSymbol{\tau} {\mathord}{\mtpsymbol}{74}
516 \DeclareMathSymbol{\upsilon} {\mathord}{\mtpsymbol}{75}
517 \DeclareMathSymbol{\phi} {\mathord}{\mtpsymbol}{66}
518 \DeclareMathSymbol{\chi} {\mathord}{\mtpsymbol}{63}
519 \DeclareMathSymbol{\psi} {\mathord}{\mtpsymbol}{79}
520 \DeclareMathSymbol{\omega} {\mathord}{\mtpsymbol}{77}
521 \let\varepsilon=\epsilon
522 \DeclareMathSymbol{\vartheta} {\mathord}{\mtpsymbol}{4A}

```

```

523 \DeclareMathSymbol{\varpi}{\mathord}{\mtpsymbol}{"76}
524 \let\varrho=\rho
525 \DeclareMathSymbol{\varsigma}{\mathord}{\mtpsymbol}{"56}
526 \DeclareMathSymbol{\varphi}{\mathord}{\mtpsymbol}{"6A}
527 \DeclareMathSymbol{\partial}{\mathord}{\mtpsymbol}{"B6}
528 \DeclareMathSymbol{\wp}{\mathord}{\mtpsymbol}{"C3}
529 \fi\fi

I took the code for \Huge and \HUGE from the moresize package of Christian COR-
NELSEN

530 \ifmt@defaultsizes\else
531 \providecommand\@xxxpt{29.86}
532 \providecommand\@xxxvpt{35.83}
533 \ifmt@twelve
534 \def\Huge{\@setfontsize\Huge\@xxxpt{36}}
535 \def\HUGE{\@setfontsize\HUGE\@xxxvpt{43}}
536 \typeout{** \protect\Huge\space and \protect\HUGE\space have been (re)-defined.}
537 \else
538 \def\HUGE{\@setfontsize\HUGE\@xxxpt{36}}
539 \typeout{** \protect\HUGE\space has been (re)-defined.}
540 \fi

```

I choose rather big subscripts.

```

541 \def\defaultscriptratio{.8333}
542 \def\defaultscriptscriptratio{.7}
543 \DeclareMathSizes{9}{9}{7}{5}
544 \DeclareMathSizes{\@xpt}{\@xpt}{8}{6}
545 \DeclareMathSizes{\@xipt}{\@xipt}{9}{7}
546 \DeclareMathSizes{\@xiipt}{\@xiipt}{10}{8}
547 \DeclareMathSizes{\@xivpt}{\@xivpt}{\@xiipt}{10}
548 \DeclareMathSizes{\@xvipt}{\@xvipt}{\@xivpt}{\@xiipt}
549 \DeclareMathSizes{\@xxpt}{\@xxpt}{\@xvipt}{\@xivpt}
550 \DeclareMathSizes{\@xxvpt}{\@xxvpt}{\@xxpt}{\@xvipt}
551 \DeclareMathSizes{\@xxxpt}{\@xxxpt}{\@xxvpt}{\@xxpt}
552 \DeclareMathSizes{\@xxxvpt}{\@xxxvpt}{\@xxxpt}{\@xxvpt}
553 \typeout{** mathastext has declared larger sizes for subscripts.^^J%}
554 ** To keep LaTeX defaults, use option 'defaultmathsizes'.}
555 \fi

```

At begin document, we make a few announcements depending on whether everything was in OT1 or T1 or otherwise, and we make a choice of the slot locations of mathaccents and of \imath and \jmath.

```

556 \AtBeginDocument{
557 \ifx\mt@alldelims\@empty
558 \ifx\mt@symbolmax\@empty\else
559 \ifall@OTone
560 \typeout{** mathastext: option 'alldelims', and OT1 encodings; characters
561 <, >, {, }, | ^^J%}
562 ** will display correctly only for the fixed-width fonts.}
563 \else
564 \ifall@Tone\else
565 \typeout{** mathastext: option 'alldelims'; <, >, {, }, | have been assumed
566 to be located^^J%}
567 ** as in T1 (or OT1 fixed-width) fonts.))}
568 \fi\fi\fi\fi

```



```

569 \ifall@OTone\else
570 \DeclareMathSymbol{\inodot}{\mathord}{mtcurrentfont}{19}
571 \DeclareMathSymbol{\jnodot}{\mathord}{mtcurrentfont}{1A}
572 \fi
573 }
574 \AtBeginDocument{
575 \ifx\mt@mathaccents\empty
576 \ifall@OTone
577 \DeclareMathAccent{\acute}{\mathalpha}{mtcurrentfont}{13}
578 \DeclareMathAccent{\grave}{\mathalpha}{mtcurrentfont}{12}
579 \DeclareMathAccent{\ddot}{\mathalpha}{mtcurrentfont}{7F}
580 \DeclareMathAccent{\tilde}{\mathalpha}{mtcurrentfont}{7E}
581 \DeclareMathAccent{\bar}{\mathalpha}{mtcurrentfont}{16}
582 \DeclareMathAccent{\breve}{\mathalpha}{mtcurrentfont}{15}
583 \DeclareMathAccent{\check}{\mathalpha}{mtcurrentfont}{14}
584 \DeclareMathAccent{\hat}{\mathalpha}{mtcurrentfont}{5E}
585 \DeclareMathAccent{\dot}{\mathalpha}{mtcurrentfont}{5F}
586 \DeclareMathAccent{\mathring}{\mathalpha}{mtcurrentfont}{17}
587 \else
588 \DeclareMathAccent{\acute}{\mathalpha}{mtcurrentfont}{01}
589 \DeclareMathAccent{\grave}{\mathalpha}{mtcurrentfont}{00}
590 \DeclareMathAccent{\ddot}{\mathalpha}{mtcurrentfont}{04}
591 \DeclareMathAccent{\tilde}{\mathalpha}{mtcurrentfont}{03}
592 \DeclareMathAccent{\bar}{\mathalpha}{mtcurrentfont}{09}
593 \DeclareMathAccent{\breve}{\mathalpha}{mtcurrentfont}{08}
594 \DeclareMathAccent{\check}{\mathalpha}{mtcurrentfont}{07}
595 \DeclareMathAccent{\hat}{\mathalpha}{mtcurrentfont}{02}
596 \DeclareMathAccent{\dot}{\mathalpha}{mtcurrentfont}{0A}
597 \DeclareMathAccent{\mathring}{\mathalpha}{mtcurrentfont}{06}
598 \ifall@Tone
599 \else\typeout{** mathastext: option 'mathaccents'; accents have been assumed
600   to be ^J%
601   ** as in T1 encoding but one of the math versions has a non-T1 encoding.}
602 \fi
603 \fi
604 \fi
605 }

Scaling mechanism for the Symbol font.

606 \AtBeginDocument{
607   \ifmt@need@symbol
608   \DeclareFontFamily{U}{psy}{ }
609   \DeclareFontShape{U}{psy}{m}{n}{<->s*[\psy@scale] psy}{ }
610   \fi
611 }

Time to reactivate the standard font infos and warnings and we are done.

612 \mt@font@info@on
613 \endinput

```