

Kp-fonts: OpenType version

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This bundle provides OpenType versions of Type1 Kp-fonts designed by Christophe Caignaert. See [Kpfonts-Doc-English.pdf](#) for the full documentation of the original Type1 fonts.

It is usable only with LuaTeX or XeTeX engines; it consists of sixteen Text OpenType fonts, a Roman family **KpRoman** in eight shapes and weights—*Regular, Italic, Bold, BoldItalic, Light, LightItalic, Semibold, SemiboldItalic*—, a Sans-Serif family **KpSans** and a TypeWriter family **KpMono**, each of them in four shapes and weights—*Regular, Italic, Bold* and *BoldItalic*— and five Math OpenType fonts **KpMath-Regular**, **KpMath-Bold**, **KpMath-Light**, **KpMath-Semibold** and **KpMath-Sans**.

KpRoman and **KpSans** families have small caps available in two sizes (SmallCaps and PetitesCaps), upper and lowercase digits (0123456789), ancient ligatures *ct*, *st* and *Q* a long-tailed capital *Q*. Superior and inferior digits and letters have been added to the OpenType **KpRoman** and **KpSans** fonts for footnotes' calls and abbreviations 1st, 2nd...

Latin and Greek letters are available in Upright and Italic shapes, in Bold and Regular weights, for all Math fonts: α β Γ Δ , α β Γ Δ , α β Γ Δ , α β Γ Δ .

Blackboard Bold capitals are available in two shapes, Serif and Sans: `\mathbb{ABC}` prints either $\mathbb{A}\mathbb{B}\mathbb{C}$ (default) or $\mathbb{A}\mathbb{B}\mathbb{C}$ (option `[Style=bbsans]`) Commands `\mathcal{ABC}` and `\mathscr{ABC}` print respectively $\mathcal{A}\mathcal{B}\mathcal{C}$ and $\mathscr{A}\mathscr{B}\mathscr{C}$.

File [unimath-kpfonts.pdf](#) shows the full list of Unicode Math symbols provided by Kp-fonts, compared with other common Math fonts. More symbols, specific to Kp-fonts, are listed in section 3.2.

A style file [kpfont-otf.sty](#) is provided to load Kp-fonts easily. It is derived from [kpfont.sty](#) but options differ.

Please beware of the *experimental* status of the current version (0.36).

All fonts are covered by OFL licence, style file and documentation are under LPPL-1.3 licence.

1 Loading `kpfonts-otf.sty`

For users of the original `kpfonts.sty` package, the easiest way to try the OpenType version is to load `kpfonts-otf.sty`:

```
\usepackage[ options ]{kpfonts-otf}
```

this loads `unicode-math` (and `fontspec`) and defines `KpRoman` (Regular or Light depending on options), `KpSans` and `KpMono` as Text fonts, `KpMath` (Regular or Light depending on options) as Math fonts.

`kpfonts-otf.sty` also defines all symbols available in `latexsym` and `amssymb` under the same names¹ and a bunch of Kp-fonts specifics symbols.

1.1 Global options for both Text and Maths

light: switches to *light* fonts, metrics are unchanged; *light* fonts might not look perfect on screen but they print fine.

Please compare *regular* (left) and *light* fonts (right):

Normal or light? Just a matter of taste.	Normal or light? Just a matter of taste.
$E = mc^2$	$E = mc^2$

<i>Normal or light? Just a matter of taste</i>	<i>Normal or light? Just a matter of taste</i>
--	--

Normal or light? Just a matter of taste	Normal or light? Just a matter of taste
--	--

<i>Normal or light? Just a matter of taste</i>	<i>Normal or light? Just a matter of taste</i>
---	---

nomath: load neither `unicode-math` nor `KpMath` fonts; useful for documents without Maths, or to choose other Math fonts.

notext: do not change any Text font, use the defaults.

nosf: do not change Sans-Serif Text fonts, use the defaults.

nott: do not change Typewriter Text fonts, use the defaults.

onlyrm: equivalent to the last two combined.

1.2 Options for Text fonts *only*

lighttext: switches to *light* Text fonts.

oldstylenums: provides lowercase digits as a default.

To get uppercase digits locally: `{\addfontfeature{Numbers=Lining} 123}`.

Examples, upright, italic, bold and bolditalic:

— 0123456789!

— 0123456789!

— 0123456789!

— 0123456789!

1. Unicode names often differ from AMS names.

oldstyle: provides lowercase digits as a default, long-tailed Q (Quebec) and (for Roman and Sans-Serif fonts only) old style ligatures « ct » et « st ».

Examples:

- Quest for an attractive font!
- *Quest for an attractive font!*
- **Quest for an attractive font!**
- QUEST FOR AN ATTRACTIVE FONT!
- *Quest for an attractive font!*
- **QUEST FOR AN ATTRACTIVE FONT!**

veryoldstyle: same as option **oldstyle** but the round ‘s’ is replaced by the long one ‘ſ’, unless it ends a word (then it remains ‘s’)² and ancient ligatures fi, fl, ft are activated. Coding **s=** prints a round ‘s’ anytime; in most cases this coding is not necessary with LuaTeX³, f.i. `\textit{some of Highlands’ mysterious castles...}` will print *some of Highlands’ mysteriouſ castles...* which is correct; with XeTeX an = sign must be added at the end of **mysterious=** to get a round ‘s’ there.

largesmallcaps: prints larger SMALL CAPS than the default ones (PETITES CAPS).

altfligs : prints alternative shapes for ligatures fi, fl, ffi, ffl instead of fi, fl, ffi, ffl.

germandbls : `\SS` prints SS instead of ß (capital *Eszett*), ditto for small/petite caps.

eurosym : replaces the Euro character (€) by the official symbol (€) (available in regular, italic, bold and et bolditalic) ; the `\KPeuro` command is also provided to print the official symbol, it accepts an optionnal argument : `\kpeuro[1,50]{}` prints 1,50 € (with a nobreak space).

harfbuzz : switches **Renderer=Harfbuzz** for HBLuaTeX engine; up to version 0.34, this renderer was silently activated but seldom useful.

1.3 Options for Math fonts *only*

lightmath: uses *light* Math fonts.

bbsans: command `\mathbb` prints Sans-Serif Blackboard Bold capitals with Serif fonts too: compare $\mathbb{C}, \mathbb{K}, \mathbb{N}, \mathbb{Q}, \mathbb{R}, \mathbb{Z}$, with $\mathbb{C}, \mathbb{K}, \mathbb{N}, \mathbb{Q}, \mathbb{R}, \mathbb{Z}$ (default).

frenchstyle: Latin uppercase letters and all Greek letters are printed upright, only lowercase latin letters are printed in italics; this follows the French typographic usage.

oldstylenumsmath: prints lowercase digits in Maths (default is uppercase).

narrowiints: prints condensed repeated integrals :

$\int\!\!\!\int$ et $\int\!\!\!\int\!\!\!\int$ instead of $\int\!\!\!\int$ et $\int\!\!\!\int\!\!\!\int$ (default).

partialup: the `\partial` symbol is printed upright ∂ instead of ∂ .

fancyReIm: commands `\Re` et `\Im` print \Re et \Im respectively instead of \mathbb{R} et \mathbb{I} .

2. The OpenType **calt** feature is used to catch ‘s’ ending a word.

3. TeX’s ~ char (nobreakspace) fails to be recognised as ending a word: `boys~band` prints boyf band.

tight: horizontal spaces tightened in math mode (same settings as `fourier-otf`).

noDcommand: do not define `\D` to avoid incompatibilities with other packages.

Option **mathcal** has been deleted: commands `\mathcal{ABC}` and `\mathscr{ABC}` now print ABC and \mathcal{ABC} respectively when `kpfonts-otf.sty` is loaded.

2 Another way to load Kp-fonts

Loading Kp-fonts through `kpfonts-otf.sty` offers only a limited choice of options; the standard commands `\setmainfont`, `\setsansfont`, `\setmonofont`, `\setmathfont` offer much more flexibility.

On the other hand, `kpfonts-otf.sty` defines a lot of useful commands to access AMS and specific Kp-fonts symbols. Loading `kpfonts-otf` with the **symbols** option enables to get all these commands defined without loading any font:

```
\usepackage[symbols]{kpfonts-otf}
```

Please note that `unicode-math`⁴ (and `fontspec`) *are loaded* by this procedure, no need to do it again, unless specific options are required, then `unicode-math` has to be loaded *before* `kpfonts-otf`, f.i.:

```
\usepackage[math-style=ISO,bold-style=upright]{unicode-math}
\usepackage[symbols]{kpfonts-otf}
```

Then, it is up to the user to load Kp-fonts with whatever option he/she likes using commands

```
\set...font{font}[options].
```

For documents requiring no Math fonts, loading `fontspec` and using the `\set...font` commands is enough.

2.1 Options for Text fonts

Here are the options available for Text Kp-fonts:

Numbers=Lowercase to get lowercase digits 1,2,3 instead of 1,2,3; the default is **Numbers=Lining**.

SmallCapsFeatures = {Letters=SmallCaps} the `\textsc{}` command will print larger SMALL CAPS than the default PETITES CAPS.

The default setting is **SmallCapsFeatures = {Letters=PetiteCaps}**.

Ligatures=TeX (default) ' !` ?` -- --- print respectively ' i ÿ - —.

Ligatures=Common (default) automatic ligatures ff ffi ffl fi fl.

StylisticSet=1 provides an alternative for glyphs ffi ffl fi fl (ff is unchanged).

4. A careful reading of both manuals `unicode-math.pdf` and `fontspec.pdf` (available in all TeX distributions) is required in order to take full advantage of these packages.

Ligatures=Required : adds ft et tt ligatures.

Ligatures=Rare adds ct et st ligatures.

Style=Swash to get the long-tailed capital Q: Queen, also in small caps (both sizes): QUEEN and QUEEN.

Style=Historic replaces any instance of ‘s’ by the long variant f. It is still possible to get a round ‘s’ coding it as ‘s=’. As the long variant is never used at words’ ends the feature **calc** is also activated: it tries to catch end of words, see [veryoldstyle](#) p. 3 for more details.

Ligatures=Historic switches specific ligatures for the long f: fi, fl, ft.

StylisticSet=2 : \SS prints SS instead of ß (capital *Eszett*), ditto for small/petite caps.

StylisticSet=3 : replaces the Euro character (€) by the official symbol (€) (available in regular, italics, bold and et bolditalic).

Options may be are chosen for each font, say:

```
\setmonofont{KpMono}[Numbers=Lowercase,Style=Historic]
```

but can also be shared by different typefaces:

```
\defaultfontfeatures+[KpRoman,KpSans,KpMono]{Numbers=Lowercase}
\defaultfontfeatures+[KpRoman,KpSans]{%
  Ligatures = Rare,
  Style = Swash,
  SmallCapsFeatures = {Letters=SmallCaps},
}
\setmainfont{KpRoman}
\setsansfont{KpSans}
\setmonofont{KpMono}
```

Notes : 1. `\setmonofont{KpMono}`, `\setsansfont{KpSans}`, `\setmainfont{KpRoman}` rely on files `KpMono.fontspec`, `KpSans.fontspec` and `KpRoman.fontspec` installed by Kpfonts.

2. Note the + ending `\defaultfontfeatures+` : options are *added*, not overwriting any other (including those of `fontspec.cfg`).

3. Options can be gathered: `Ligatures={Rare,Historic}` (with braces) is equivalent to `Ligatures=Rare` and `Ligatures=Historic`.

4. These options can also be switched on and off *locally* using `\addfontfeatures` inside a group, f.i. to print lowercase digits 1234576890 with a font loaded with option `Numbers=Lining`:

```
{\addfontfeatures{Numbers=Lining}1234576890}
```

Actually, a shortcut is available in this case: `\oldstylenums{1234576890}`.

2.2 Options for Math fonts

The following options can be passed either to `unicode-math`⁵ or to `\setmathfont{}`:

5. See the manual [unicode-math.pdf](#).

`math-style = ISO, TeX` (défaut), `french`, `upright`;

`bold-style = ISO, TeX` (défaut), `upright`;

`partial = upright` (default italic);

`nabla = italic` (default upright);

Seven ‘Style Variants’ are available with Kp-fonts, here are the first three:

Style=mathcal (+ss01) commands `\mathcal{}` and `\mathscr{}` print ABC instead of \mathcal{ABC} (default), see note below;

Style=bbsans (+ss02) `\mathbb{}` prints Sans-Serif Blackboard bold capitals \mathbb{ABC} for Serif Math fonts `KpMath-Regular` and `KpMath-light` instead of \mathbb{ABC} ;

Style=narrowiints (+ss03) provides condensed repeated integrals: \iiint instead of \iiint (default).

Note: if you want commands `$_\mathcal{ABC}$` and `$_\mathscr{ABC}$` to print \mathcal{ABC} and \mathscr{ABC} respectively, you can use `unicode-math`’s option `range` this way:

`\setmathfont{KpMath-Regular}[options]`

`\setmathfont{KpMath-Regular}[range={cal,bfcal},StylisticSet=1]`

The first line loads `KpMath` as usual, the second one modifies `\mathcal{}` command’s output.

The next four tables present the other Style Variants available:

Table 1 – Style=leqslant (+ss04)

Command	Default	Variant
<code>\leq</code>	\leq	\leqslant
<code>\geq</code>	\geq	\geqslant
<code>\nleq</code>	\nleq	\nleqslant
<code>\ngeq</code>	\ngeq	\ngeqslant
<code>\leqq</code>	\leqq	\leqslant
<code>\geqq</code>	\geqq	\geqslant
<code>\eqless</code>	\eqless	\eqless
<code>\eqgtr</code>	\eqgtr	\eqgtr
<code>\lesseqgtr</code>	\lesseqgtr	\lesseqgtr
<code>\gtreqless</code>	\gtreqless	\gtreqless
<code>\lesseqqgtr</code>	\lesseqqgtr	\lesseqqgtr
<code>\gtreqqless</code>	\gtreqqless	\gtreqqless

Table 2 – Style=smaller (+ss05)

Command	Default	Variant
<code>\mid</code>	\mid	\mid
<code>\nmid</code>	\mid	\mid
<code>\parallel</code>	\parallel	\parallel
<code>\nparallel</code>	\nparallel	\nparallel
<code>\parallelslant</code>	\parallel	\parallel
<code>\nparallelslant</code>	\nparallel	\nparallel

Table 3 – Style=subsetneq (+ss06)

Command	Default	Variant
<code>\subsetneq</code>	\subsetneq	\subsetneq
<code>\supsetneq</code>	\supsetneq	\supsetneq
<code>\subsetneqq</code>	\subsetneqq	\subsetneqq
<code>\supsetneqq</code>	\supsetneqq	\supsetneqq

Table 4 – Style=parallelslant (+ss07)

Command	Default	Variant
<code>\parallel</code>	\parallel	\parallel
<code>\nparallel</code>	\nparallel	\nparallel
<code>\shortparallel</code>	\parallel	\parallel
<code>\nshortparallel</code>	\nparallel	\nparallel

Example: switching styles 4 (leqslant) and 6 (subsetneq) can be achieved coding either `\setmathfont{KpMath-Regular.otf}[StylisticSet={4,6}]` or `\setmathfont{KpMath-Regular.otf}[Style={leqslant,subsetneq}]` but this second syntax is available only if `kpfonts-otf.sty` has been loaded (eventually with the `symbols` option).

Table 5 shows the available ‘Glyphs Variants’:

Table 5 – Glyphs Variants					
	Default		Variant		Command
cv00	\Re	\mathbb{I}	\Re	\mathbb{I}	<code>\Re</code> <code>\Im</code>
cv01	\hbar		\hbar		<code>\hslash</code> or <code>\hbar</code>
cv02	\emptyset		\emptyset		<code>\emptyset</code>
cv03	ε		ε		<code>\epsilon</code>
cv04	κ		κ		<code>\kappa</code>
cv05	π		π		<code>\pi</code>
cv06	ϕ		ϕ		<code>\phi</code>
cv07	ρ		ρ		<code>\rho</code>
cv08	σ		σ		<code>\sigma</code>
cv09	θ		θ		<code>\theta</code>
cv10	Θ		Θ		<code>\Theta</code>

Example: with `\setmathfont{KpMath-Regular.otf}[CharacterVariant={3,6}]` commands `\epsilon` and `\phi` print ε and φ instead of ϵ et ϕ . The same is true of course for all shapes and and weights (upright, bold, bolditalic, sans-serif, etc.): f.i. with `math-style=french`, `\epsilon` and `\phi` print ε and φ .

Note about `\hbar`: `unicode-math` defines `\hbar` as `\hslash` (U+210F) while `amsmath` provides two different glyphs (italic h with horizontal or diagonal stroke). `kpfonts-otf` now follows `unicode-math`; the italic h with horizontal stroke can be printed using `\hslash` or `\hbar` together with character variant `cv01` or with `\mathbar` (replacement for AMS’ command `\hbar`).

3 Kp-fonts specific commands

3.1 Integrals

Kp-fonts offers variants for integral symbols suitable for indefinite integrals, they are coded as `\varint`, `\variint`, `\variiint`, `\variiiiint` and `\varidotsint`. Compare $\int f(t) dt$ and $\int f(t) dt$ and also

$$\int f(t) dt \quad \text{and} \quad \int f(t) dt$$

`\D{...}` prints an upright ‘d’ and improves kernings around the differential element:

$$\text{\displaystyle\varint f(t)\D{t}} \text{ donne } \int f(t) dt.$$

3.2 Specific Math symbols

The next tables present symbols unavailable as Unicode characters, they are coded in Kp-fonts’ private zone.

<code>\mmapsto</code>	\mapsto	<code>\longmmapsto</code>	\longmapsto
<code>\mmapsfrom</code>	\mapsfrom	<code>\longmmapsfrom</code>	\longmapsfrom
<code>\Mmapsto</code>	\Mmapsto	<code>\Longmmapsto</code>	\Longmapsto
<code>\Mmapsfrom</code>	\Mmapsfrom	<code>\Longmmapsfrom</code>	\Longmapsfrom
<code>\leftrightdasharrow</code>	\leftrightarrow	<code>\leadsto</code>	\leadsto
<code>\boxright</code>	\boxrightarrow	<code>\boxleft</code>	\boxleftarrow
<code>\circleright</code>	\circrightarrow	<code>\circleleft</code>	\circleftarrow
<code>\Diamondright</code>	\diamondrightarrow	<code>\Diamondleft</code>	\diamondleftarrow
<code>\boxdotright</code>	\boxdotrightarrow	<code>\boxdotleft</code>	\boxdotleftarrow
<code>\circledotright</code>	\circledrightarrow	<code>\circledotleft</code>	\circledleftarrow
<code>\Diamonddotright</code>	\diamondrightarrow	<code>\Diamonddotleft</code>	\diamondleftarrow
<code>\boxRight</code>	\boxRightarrow	<code>\boxLeft</code>	\boxLeftarrow
<code>\boxdotRight</code>	\boxdotRightarrow	<code>\boxdotLeft</code>	\boxdotLeftarrow
<code>\DiamondRight</code>	\DiamondRightarrow	<code>\DiamondLeft</code>	\DiamondLeftarrow
<code>\DiamonddotRight</code>	\DiamondRightarrow	<code>\DiamonddotLeft</code>	\DiamonddotLeftarrow
<code>\multimapdot</code>	\multimapdot	<code>\multimapdotinv</code>	\multimapdotinv
<code>\multimapdotboth</code>	\multimapdotboth		
<code>\multimapbothvert</code>	\multimapbothvert	<code>\multimapdotbothvert</code>	\multimapdotbothvert
<code>\multimapdotbothAvert</code>	\multimapdotbothAvert	<code>\multimapdotbothBvert</code>	\multimapdotbothBvert
<code>\capplus</code>	\capplus	<code>\sqcupplus</code>	\sqcupplus
<code>\parallelslant</code>	\parallel	<code>\colonsim</code>	\sim
<code>\parallelbackslant</code>	\parallel	<code>\Colonsim</code>	\sim
<code>\eqqColon</code>	\equiv	<code>\Colondash</code>	\dashv
<code>\strictif</code>	\rightarrow	<code>\strictfi</code>	\leftarrow
<code>\circledvee</code>	\circledvee	<code>\circledwedge</code>	\circledwedge
<code>\openJoin</code>	\times	<code>\opentimes</code>	\times
<code>\lambdaslash</code>	λ	<code>\lambdabar</code>	λ
		<code>\VvDash</code>	\Vdash
		<code>\Wr</code>	\wr

<code>\idotsint</code>	$\int \cdots \int$	$\int \cdots \int$		
<code>\ointclockwise</code>	\oint	\oint	<code>\varointctrclockwise</code>	\oint
<code>\oiintclockwise</code>	\oiint	\oiint	<code>\oiintctrclockwise</code>	\oiint
<code>\varoiintclockwise</code>	\varoiint	\varoiint	<code>\varoiintctrclockwise</code>	\varoiint
<code>\oiintclockwise</code>	\oiint	\oiint	<code>\oiintctrclockwise</code>	\oiint
<code>\varoiintclockwise</code>	\varoiint	\varoiint	<code>\varoiintctrclockwise</code>	\varoiint
<code>\sqiint</code>	\sqiint	\sqiint	<code>\sqiint</code>	\sqiint

The full list of Unicode symbols available with Kp-fonts is shown in file [unimath-kpfonts.pdf](#).

3.3 Wide accents

— `\widehat` and `\widetilde`

\hat{x} \hat{xx} \hat{xxx} \hat{xxxx} \hat{xxxxx} \hat{xxxxxx} \tilde{x} \tilde{xx} \tilde{xx} \tilde{xxx} \tilde{xxxx} \tilde{xxxxx}

— `\overline` and `\underline`

\overline{x} \overline{xy} \overline{xyz} $\overline{A \cup B}$ $\overline{A \cup (B \cap C) \cup D}$ $\underline{m+n+p}$

— `\wideoverbar`, `\widecheck` et `\widebreve`

\overline{x} \overline{xy} \overline{xyz} \check{x} \check{xxx} \check{xxxxx} \breve{x} \breve{xxx} \breve{xxxxx}

— `\overparen` and `\underparen`

\wideparen{x} \wideparen{xy} \wideparen{xyz} $\overline{\overset{\circ}{A \cup B}}$ $\overline{\overset{\circ}{A \cup (B \cap C) \cup D}}$ $\overset{2}{x+y}$ $\overset{26}{a+b+\dots+z}$

\underline{x} \underline{xz} \underline{xyz} $\underline{\frac{x+z}{2}}$ $\underline{\frac{a+b+\dots+z}{26}}$

— `\overbrace` and `\underbrace`

\overbrace{a} \overbrace{ab} \overbrace{abc} \overbrace{abcd} \overbrace{abcde} $\overbrace{a+b+c}^3$ $\overbrace{a+b+\dots+z}^{26}$

\underbrace{a} \underbrace{ab} \underbrace{abc} \underbrace{abcd} \underbrace{abcde} $\underbrace{a+b+c}_3$ $\underbrace{a+b+\dots+z}_{26}$

— `\overrightarrow` and `\overleftarrow`

$$\vec{v} \quad \vec{M} \quad \vec{vv} \quad \vec{AB} \quad \vec{ABC} \quad \vec{ABCD} \quad \vec{ABCDEFGH}.$$

$$\overleftarrow{v} \quad \overleftarrow{M} \quad \overleftarrow{vv} \quad \overleftarrow{AB} \quad \overleftarrow{ABC} \quad \overleftarrow{ABCD} \quad \overleftarrow{ABCDEFGH}$$

— Enfin `\widearc` and `\widearccarrow` (ou `\overrightarrowarc`)

$$\widehat{AMB} \quad \widehat{AMB}$$

3.4 Math Versions

Different versions of the **KpMath** fonts may be defined in the document's preamble:

```
\setmathfont{KpMath-Regular.otf}[version=base, options ]
\setmathfont{KpMath-Bold.otf}[version=bold, options ]
\setmathfont{KpMath-Semibold.otf}[version=semibold, options ]
\setmathfont{KpMath-Sans.otf}[version=sans, options ]
\setmathfont{KpMath-Light.otf}[version=light, options ]
```

then, it is easy to switch from one version to another one with `\mathversion{name}`.

Example ⁶ :

```
\setmathfont{KpMath-Regular.otf}[Style=leqslant, CharacterVariant=3]
\setmathfont{KpMath-Bold.otf}[version=bold,
Style=leqslant, CharacterVariant=3]
\setmathfont{KpMath-Sans.otf}[version=sans,
Style=leqslant, CharacterVariant=3]
```

Here is the same equation in three versions, normal, bold and Sans-Serif:

$$\mathbb{E}_i(N_i) = \sum_{n \geq 1} P_i(N_i \geq n) = \frac{\varepsilon_i}{1 - \varepsilon_i} < +\infty$$

`\mathversion{bold}`

$$\mathbb{E}_i(N_i) = \sum_{n \geq 1} P_i(N_i \geq n) = \frac{\varepsilon_i}{1 - \varepsilon_i} < +\infty$$

`\mathversion{sans}`

$$\mathbb{E}_i(N_i) = \sum_{n \geq 1} P_i(N_i \geq n) = \frac{\varepsilon_i}{1 - \varepsilon_i} < +\infty$$

6. Option `CharacterVariant=3` changes ε into ϵ .