# TypoG Examples

The section numbers correspond to the subsections of section 3 in the official documentation of package typog.

## Contents

# Examples

Unless otherwise noted the font used in the examples is ›Inter‹.

# 1 Information

`\fontsizeinfo` – At this point of the document, the font size and the line spacing are 10.6/13 (w/o units). For footnotes however, the current sizes are[1] 8.5 pt/ 9.5 pt.

Next we show a comparison of different font sizes and line spacings decorated with the results of `\fontsizeinfo`.

---

Different font sizes and line spacings exemplified with the Merriweather font.

| | | |
|---|---|---|
| Macro `\baselineskip` is a length command which specifies the minimum space between the bottom of two successive lines in a paragraph. Its value may be automatically reset by LaTeX, for example, by font changes in the text. | Macro `\baselineskip` is a length command which specifies the minimum space between the bottom of two successive lines in a paragraph. Its value may be automatically reset by LaTeX, for example, by font changes in the text. | Macro `\baselineskip` is a length command which specifies the minimum space between the bottom of two successive lines in a paragraph. Its value may be automatically reset by LaTeX, for example, by font changes in the text. |
| Merriweather 8.5/12 | Merriweather 10/12 | Merriweather 10/13.5 |

---

Starred form eats spaces? 10/12.

# 2 Hyphenation

Line-break behavior

| | | |
|---|---|---|
| `\mbox+\breakpoint*` | `\breakpoint*` | `\breakpoint` |
| (pre-) | (pre- | (pre- |
| Hilbert | ) | ) |
| space | Hilbert | Hil- |
| | space | bert |
| | | space |

Starred form eats spaces? ab. Unstarred: ab.

[1] This is the footnote where we get the sizes from.

# 3 Disable/Break Ligatures

| Macro | Result |
|---|---|
| n/a | fine affirmation of baffling flavors |
| `\nolig*` | fine affirmation of baffling flavors |
| `\nolig` | fine affirmation of baffling flavors |
| `\nolig*[75]` | office |

Line-break behavior

`\nolig*`
bijection

`\nolig`
bi-
jec-
tion

Starred form eats spaces? fi, fi.

# 4 Manual Italic Correction

**Text Mode.** The italic correction of the current font is 0.0pt/pt.

We demonstrate the effect of `\itcorr` with a pair of bookends: uncorrected italics: 𝕀𝕏, TEX-corrected (`\/`): 𝕀𝕏\, and `\itcorr{7}`: 𝕀𝕏\.

Correction 0: 𝕀; corr. 3: 𝕀, 𝕀 (starred); corr. –6: 𝕀.

**Mathematical Mode.** Uncorrected: $[f]$, corrected: $[f]$

Correction 0: 𝕀; corr. 3: 𝕀; corr. –6: 𝕀.

# 5 Apply Extra Kerning

## 5.1 Slash

The slash with some extra space around it can be helpful for certain pairs, as for example years or names.

| Macro | Result |
|---|---|
| n/a | 1991/1992, New York/NY, Korringa/Kohn/Rostoker |
| `\kernedslash` | 1991/1992, New York/NY, Korringa/Kohn/Rostoker |

Line-break behavior

`\kernedslash*`
1991/1992,
New York/NY,
Korringa/Kohn/Ros-
toker

`\kernedslash`
1991/
1992,
New York/
NY,
Korringa/
Kohn/
Ros-
toker

| `\kernedslash*\nobreak` | `\allowhyphenation\kernedslash` |
|---|---|
| 1991/1992,<br>New York/NY,<br>Korringa/Kohn/Rostoker | 1991/<br>1992,<br>New York/<br>NY,<br>Ko-<br>r-<br>ringa/<br>Kohn/<br>Ros-<br>toker |

Starred form eats spaces? p/q.

## 5.2 Hyphen

Uncorrected

*K*-vector space, *g*-factor, *f*-function

Corrected

*K*-vector space, *g*-factor, *f*-function

Line-break behavior

| hyphen '-' | `\hyp` | `\kernedhyphen*` | `\kernedhyphen` |
|---|---|---|---|
| self-<br>energy | self-<br><br>en-<br>ergy | self-<br>energy | self-<br>en-<br>ergy |

If a `\kernedhyphen` goes astray in a math environment, it decays to an ordinary minus with appropriate kerning: $G$–$V$.

# 6 Raise Selected Characters

## 6.1 Capital Hyphen

With the standard hyphen we get

NMR-Spektroskopie, SI-Einheit, *G*-Modul, and *K*-Vektorraum,

whereas with raising the hyphen by 0.6667pt when calling `\capitalhyphen`, we arrive at

NMR-Spektroskopie, SI-Einheit, *G*-Modul, and *K*-Vektorraum (even better with `\kernedhyphen` and the star-option for the correct raise-amount: *K*-Vektorraum).

Line-break behavior

| `\capitalhyphen*` | `\capitalhyphen` |
|---|---|
| NMR-Spektroskopie | NMR-<br>Spek-<br>tro-<br>sko-<br>pie |

Starred form eats spaces? V-W.

## 6.2 Capital Dash

Compare the result of plain `\textendash`

A–M, N–Z, C1 – C4, LEED – STM

with `\capitaldash`:

A–M, N–Z, C1 – C4, LEED – STM

where the en-dash has been raised by $^{75}/_{1000}$ em.
Starred form eats spaces? V–W.

## 6.3 Number Dash

Compare the result of plain `\textendash`

3–5, 81–82, 485–491

with `\figuredash`:

3–5, 81–82, 485–491

where the en-dash has been raised by 0.6667pt.
Line-break behavior

| `\figuredash*` | `\figuredash` |
|---|---|
| 3–5,<br>81–82,<br>485–491 | 3–<br>5,<br>81–<br>82,<br>485–<br>491 |

Starred form eats spaces? 44–55.

## 6.4 Multiplication Sign – Times "×"

The problem with a too-low multiplication sign arises for example with matrices of a given, specific size.
Uncorrected

LR-mode: 2×2-matrix, $N$×$M$-matrix
Math-mode: $2 \times 2$-matrix, $N \times M$-matrix

and corrected

LR-mode: 2×2-matrix, $N$×$M$-matrix
Math-mode: $2 \times 2$-matrix, $N \times M$-matrix.

## 6.5 Guillemets

We again compare the default implementation with the adjusted one.

›Use single quotes for a first quotation.‹
»Use double quotes for quotations within quotations.«
›1‹, ›2‹, ›3‹.
»ABC«, »MN«, »XYZ«.

Corrected by raising the glyphs by $^{50}/_{1000}$ em and $^{100}/_{1000}$ em, respectively:

›Use single quotes for a first quotation.‹
»Use double quotes for quotations within quotations.«
›1‹, ›2‹, ›3‹.
»ABC«, »MN«, »XYZ«.

And the same using French typographic conventions:

‹ Use single quotes for a first quotation. ›
« Use double quotes for quotations within quotations. »
‹ 1 ›, ‹ 2 ›, ‹ 3 ›.
« ABC », « MN », « XYZ ».

Line-break behavior

| | | | |
|---|---|---|---|
| ›re- | ›re- | »re- | »re- |
| la- | la- | la- | la- |
| tion‹ | tion‹ | tion« | tion« |
| ‹ re- | ‹ re- | « re- | « re- |
| la- | la- | la- | la- |
| tion › | tion › | tion » | tion » |

# 7 Align Last Line

## 7.1 Last Line Ragged Left/Flush Right

Example 7.1 is a typical use of environment `lastlineraggedleftpar`: A narrow paragraph gets typeset with full justification and put `\flushright` against the right margin as a whole.

The layout may look more coherent if the last lines is moved to the right margin, too.

---

**Example 7.1 –** Typeset a justified paragraph flushright and let macro `\lastlineraggedleft` shift the last line over to the right-hand side.

---

We still haven't discussed the special trick that allows the final line of a paragraph to be shorter than the others. Just before TEX begins to choose breakpoints, it does two important things: [...]

*The sample text was taken from The TEXbook [1, p. 99n].*

The font used in this example is Inter regular, 9/11.

---

## 7.2 Last Line Centered

The situation shown in Ex. 7.2 is more widespread than Ex. 7.1 because centered tables and figures are quite common. Their caption parboxes are centered too, which is where a centered last line might fortify the layout.

Another possible use of environment `lastlinecenteredpar` are the final lines of chapters – in particular if the chapters' ends are marked with centered dingbats.

---

**Example 7.2 –** Typeset a justified paragraph that is centered. This very caption uses `lastlinecenteredpar` to have its last line centered as well. Moreover, we put a nifty asterisk centered at the bottom of the sample text.

---

We still haven't discussed the special trick that allows the final line of a paragraph to be shorter than the others. Just before TEX begins to choose breakpoints, it does two important things: [...]

*

*The sample text was taken from The TEXbook [1, p. 99n].*

The font used in this example is Inter regular, 9/11.

---

# 8 Fill Last Line

**Example 8.1 –** Top example: Typeset a paragraph without correction of the last line. Middle example: Paragraph corrected with `covernextindentpar`. We set a `\parindent` of 25pt in both parboxes and we *must* increase the amount of glue in the paragraph to reduce the penalty of stretching the last line under a `\fussy` setting. For the samples below, we have chosen `\slightlysloppy[2]`. The ›Alternative‹, the bottom example, shows the effect of `tightspacing`; no extra sloppyness is required there.

We still haven't discussed the special trick that allows the final line of a paragraph to be shorter than the others. Just before TEX begins to choose breakpoints, it does two important things: [...] abcd efgh ijkl mnop qrst uvwx yz12 3456

We still haven't discussed the special trick that allows the final line of a paragraph to be shorter than the others. Just before TEX begins to choose breakpoints, it does two important things: [...] abcd efgh ijkl mnop qrst uvwx yz12 3456

Alternative...

We still haven't discussed the special trick that allows the final line of a paragraph to be shorter than the others. Just before TEX begins to choose breakpoints, it does two important things: [...] abcd efgh ijkl mnop qrst uvwx yz12 3456

*The sample text was taken from The TEXbook [1, p. 99n].*

The font used in this example is Inter regular, 9/11.

**Example 8.2 –** Same comparison as the previous example, but for a small linewidth and zippo `\parindent`. The left-hand side sample is uncorrected, the right-hand side features `\covernextindentpar`. The sloppyness level is 2 for both samples.

We still haven't discussed the special trick that allows the final line of a paragraph to be shorter than the others. Just before TEX begins to choose breakpoints, it does two important things: [...] abcd efgh ijkl mnop qrst uvwx yz12 3456

We still haven't discussed the special trick that allows the final line of a paragraph to be shorter than the others. Just before TEX begins to choose breakpoints, it does two important things: [...] abcd efgh ijkl mnop qrst uvwx yz12 3456

*The sample text was taken from The TEXbook [1, p. 99n].*

The font used in this example is Inter regular, 9/11.

**Example 8.3 –** Sample 1: Typeset a paragraph without correction of the last line. Sample 2: Paragraph corrected with `\openlastlinepar`. – Disappointing! Sample 3: Same using macro `\prolongpar`. Sample 4: Alternative solution that simply increases the tracking by $^{2}/_{1000}$ em with `setfonttracking`. Sample 5: Alternative solution that increases the spacing with `loosespacing`.

We still haven't discussed the special trick that allows the final line of a paragraph to be shorter than the others. Just before TEX begins to choose breakpoints, it does two important things: [...] abcd efgh ijkl mnop qrst uvwx yz12 3456

We still haven't discussed the special trick that allows the final line of a paragraph to be shorter than the others. Just before TEX begins to choose breakpoints, it does two important things: [...] abcd efgh ijkl mnop qrst uvwx yz12 3456

We still haven't discussed the special trick that allows the final line of a paragraph to be shorter than the others. Just before TEX begins to choose breakpoints, it does two important things: [...] abcd efgh ijkl mnop qrst uvwx yz12 3456

Alternatives...

We still haven't discussed the special trick that allows the final line of a paragraph to be shorter than the others. Just before TEX begins to choose breakpoints, it does two important things: [...] abcd efgh ijkl mnop qrst uvwx yz12 3456

We still haven't discussed the special trick that allows the final line of a paragraph to be shorter than the others. Just before TEX begins to choose breakpoints, it does two important things: [...] abcd efgh ijkl mnop qrst uvwx yz12 3456

*The sample text was taken from The TEXbook [1, p. 99n].*

The font used in this example is Inter regular, 9/11.

# 9 Spacing

## 9.1 Narrow/Wide Space

The current font's parameters are shown in table 1.[2]

Table 1: Important `\fontdimen` values of the current text font. The middle column (#) states the number of the fontdimen.

| Name | # | Value |
|---|---|---|
| Interword space | 2 | 2.97917pt |
| Interword stretch | 3 | 1.32999pt |
| Interword shrink | 4 | 1.38324pt |
| Extra space | 7 | 0.37453pt |

| | | |
|---|---|---|
| Compare | some text with spaces | default space, natural glue |
| with | some text with spaces | `\narrowspace`, natural glue |
| | some text with spaces | `\narrowspace`, tight box |
| | some text with spaces | `\narrowspace`, spread 5pt |
| and again | some text with spaces | default space, natural glue |
| with | some text with spaces | `\widespace`, natural glue |
| | some text with spaces | `\widespace`, tight box |
| | some text with spaces | `\widespace`, spread 5pt |

Starred form eats spaces? Narrow Space. Wide Space.

## 9.2 Looser/Tighter

Examples 9.1 and 9.2 show `tightspacing` and `loosespacing` at work.

[2] For a concise and understandable explanation of the plethora of font parameters consult David Carlisle's excellent post on StackExchange: What Do Different Fontdimennum Mean.

**Example 9.1 –** Both parboxes are typeset with `\slightlysloppy[3]`, the left one with default spacing, the right one with `tightspacing[1]`.

If you want to avoid overfull boxes at all costs without trying to fix them manually, you might be tempted to set `tolerance=10000`; this allows arbitrarily bad lines to be acceptable in tough situations. But infinite tolerance is a bad idea, because TEX doesn't distinguish between terribly bad and preposterously horrible lines. Indeed, a tolerance of 10000 encourages TEX to concentrate all the badness in one place, making one truly unsightly line instead of two moderately bad ones, because a single "write-off" produces fewest total demerits according to the rules.

If you want to avoid overfull boxes at all costs without trying to fix them manually, you might be tempted to set `tolerance=10000`; this allows arbitrarily bad lines to be acceptable in tough situations. But infinite tolerance is a bad idea, because TEX doesn't distinguish between terribly bad and preposterously horrible lines. Indeed, a tolerance of 10000 encourages TEX to concentrate all the badness in one place, making one truly unsightly line instead of two moderately bad ones, because a single "write-off" produces fewest total demerits according to the rules.

*The sample text was taken from The TEXbook [1, p. 107].*

The font used in this example is Inter regular, 9/11.

**Example 9.2 –** Both parboxes are typeset with `\slightlysloppy[3]`, the left one with default spacing, the right one with `loosespacing[2]`.

If you want to avoid overfull boxes at all costs without trying to fix them manually, you might be tempted to set `tolerance=10000`; this allows arbitrarily bad lines to be acceptable in tough situations. But infinite tolerance is a bad idea, because TEX doesn't distinguish between terribly bad and preposterously horrible lines. Indeed, a tolerance of 10000 encourages TEX to concentrate all the badness in one place, making one truly unsightly line instead of two moderately bad ones, because a single "write-off" produces fewest total demerits according to the rules.

If you want to avoid overfull boxes at all costs without trying to fix them manually, you might be tempted to set `tolerance=10000`; this allows arbitrarily bad lines to be acceptable in tough situations. But infinite tolerance is a bad idea, because TEX doesn't distinguish between terribly bad and preposterously horrible lines. Indeed, a tolerance of 10000 encourages TEX to concentrate all the badness in one place, making one truly unsightly line instead of two moderately bad ones, because a single "write-off" produces fewest total demerits according to the rules.

*The sample text was taken from The TEXbook [1, p. 107].*

The font used in this example is Inter regular, 9/11.

# 10 Microtype Front-End

## 10.1 Tracking

**Example 10.1 –** Use microtype to change the font tracking. The sample on the left-hand side shows neutral tracking. The one on the right-hand side received an extra tracking of $^{7}/_{1000}$ em.

This sentence contains an explicit call to `\textls` with an optional argument of (+200) to D E M O N S T R A T E that this macro still works inside of `setfonttracking`. Apart from that it is just some more text to exercise the macro. Well, the explicit letterspacing example is particularly ugly.

This sentence contains an explicit call to `\textls` with an optional argument of (+200) to D E M O N S T R A T E that this macro still works inside of `setfonttracking`. Apart from that it is just some more text to exercise the macro. Well, the explicit letterspacing example is particularly ugly.

The font used in this example is Inter regular, 9/11.

**Example 10.2 –** Check how font changes (serif, serif italics, small-caps, sans serif, typewriter) interfere with the interword spacing. The left sample has no tracking changes applied and serves as a reference, whereas the right sample got an extra tracking of $^{1}/_{1000}$ em. ¶ The switch from and to typewriter, i. e., constant-width fonts commonly is a source of spacing problems.

RM SF RM TT RM; RM *IT* RM; RM SC RM. Rm Sf Rm Tt Rm; Rm *It* Rm; Rm Sc Rm. rm sf rm tt rm; rm *it* rm; rm sc rm.

RM SF RM TT RM; RM *IT* RM; RM SC RM. Rm Sf Rm Tt Rm; Rm *It* Rm; Rm Sc Rm. rm sf rm tt rm; rm *it* rm; rm sc rm.

No contents: ⊥.

## 10.2 Font Expansion

No contents – `setfontshrink`: ⊥.
No contents – `setfontstretch`: ⊥.
No contents – `setfontexpand`: ⊥.
No contents – `nofontexpansion`: ⊥.

## 10.3 Character Protrusion

No contents – `nocharprotrusion`: ⊥.

**Example 10.3 –** Use microtype to stretch or shrink a font. The top sample uses `\setfontshrink` at level 3, the middle sample is the unchanged reference (which is allowed to shrink and expand), and the bottom sample utilizes `\setfontstretch` at level 2.

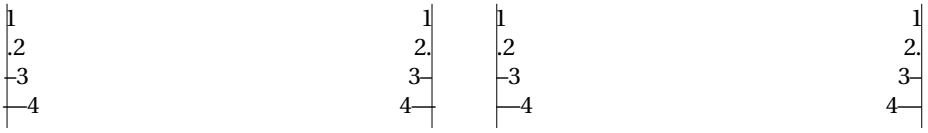
By default, all characters of a font are allowed to be stretched or shrunk by the same amount. However, it is also possible to limit the expansion of certain characters if they are more sensitive to deformation. This is the purpose of the `\SetExpansion` command.

By default, all characters of a font are allowed to be stretched or shrunk by the same amount. However, it is also possible to limit the expansion of certain characters if they are more sensitive to deformation. This is the purpose of the `\SetExpansion` command.

By default, all characters of a font are allowed to be stretched or shrunk by the same amount. However, it is also possible to limit the expansion of certain characters if they are more sensitive to deformation. This is the purpose of the `\SetExpansion` command.

The font used in this example is Erewhon regular, 9.6/11.

**Example 10.4 –** Comparison of the microtype feature "protrusion" (left-hand side) and `nocharprotrusion` (right-hand side).



# 11 Sloppy Paragraphs

Examples 11.1 and 11.2 put different amounts of “sloppiness” face to face.

**Example 11.1 –** Paragraphs typeset slightly sloppy: `\slightlysloppy` vs. `\fussy`. The left parbox is typeset with `\slightlysloppy` and *sloppiness* = 1, whereas the right sample features the well known `\fussy` setting. Both parboxes have a width of 180.0pt.

If you want to avoid overfull boxes at all costs without trying to fix them manually, you might be tempted to set `tolerance=10000`; this allows arbitrarily bad lines to be acceptable in tough situations. But infinite tolerance is a bad idea, because TEX doesn't distinguish between terribly bad and preposterously horrible lines. Indeed, a tolerance of 10000 encourages TEX to concentrate all the badness in one place, making one truly unsightly line instead of two moderately bad ones, because a single “write-off” produces fewest total demerits according to the rules.

If you want to avoid overfull boxes at all costs without trying to fix them manually, you might be tempted to set `tolerance=10000`; this allows arbitrarily bad lines to be acceptable in tough situations. But infinite tolerance is a bad idea, because TEX doesn't distinguish between terribly bad and preposterously horrible lines. Indeed, a tolerance of 10000 encourages TEX to concentrate all the badness in one place, making one truly unsightly line instead of two moderately bad ones, because a single “write-off” produces fewest total demerits according to the rules.

*The sample text was taken from The TEXbook [1, p. 107].*

The font used in this example is Inter regular, 9/11.

In conclusion all renderings of the text in Ex. 11.1 and Ex. 11.2 have their merits and their own flaws.

**Example 11.2 –** Paragraphs typeset slightly sloppy: `\slightlysloppy` vs. `\sloppy`. The left sample is features `\slightlysloppy` with *sloppiness* = 2, the right sample is typeset with `\sloppy`. Both parboxes have a width of 150.0pt.

If you want to avoid overfull boxes at all costs without trying to fix them manually, you might be tempted to set `tolerance=10000`; this allows arbitrarily bad lines to be acceptable in tough situations. But infinite tolerance is a bad idea, because TEX doesn't distinguish between terribly bad and preposterously horrible lines. Indeed, a tolerance of 10000 encourages TEX to concentrate all the badness in one place, making one truly unsightly line instead of two moderately bad ones, because a single "write-off" produces fewest total demerits according to the rules.

If you want to avoid overfull boxes at all costs without trying to fix them manually, you might be tempted to set `tolerance=10000`; this allows arbitrarily bad lines to be acceptable in tough situations. But infinite tolerance is a bad idea, because TEX doesn't distinguish between terribly bad and preposterously horrible lines. Indeed, a tolerance of 10000 encourages TEX to concentrate all the badness in one place, making one truly unsightly line instead of two moderately bad ones, because a single "write-off" produces fewest total demerits according to the rules.

*The sample text was taken from The TEXbook [1, p. 107].*

The font used in this example is Inter regular, 9/11.

# 12 Vertically Partially-Tied Paragraphs

**vtietoppar**

After breaking a paragraph into lines, TEX computes the interline penalties by adding the values of: `\clubpenalty` after the first line of a paragraph.[3] $\epsilon$-TEX generalizes the concept of interline, club, widow, and display widow penalty by allowing their replacement by arrays of penalty values.

**vtiebotpar**

After breaking a paragraph into lines, TEX computes the interline penalties by adding the values of: `\widowpenalty` before the last line of the paragraph. A float! $\epsilon$-TEX generalizes the concept of interline, club, widow, and display widow penalty by allowing their replacement by arrays of penalty values.

**vtiebotdisp**

After breaking a paragraph into lines, TEX computes the interline penalties by adding the values of: `\displaywidowpenalty` before the line immediately preceding a displayed equation. $\epsilon$-TEX generalizes the concept of interline, club, widow, and display widow penalty by allowing their replacement by arrays of penalty values.

$$gH = Hg \quad \text{for all} \quad g \in G.$$

Follow-up paragraph after and outside of the `vtiebotdisp`-environment.

**vtiebotdisptoppar**

After breaking a paragraph into lines, TEX computes the interline penalties by adding the values of: `\displaywidowpenalty` before the line immediately preceding a displayed equation. $\epsilon$-TEX generalizes the concept of interline, club, widow, and display widow penalty by allowing their replacement by arrays of penalty values.

$$gH = Hg \quad \text{for all} \quad g \in G.$$

In this example we need a paragraph that follows the displayed math. So, we have to type some more text here to be able to demonstrate the action of the environment.

[3] Footnote of `vtietoppar`.

# 13 Breakable Displayed Equations

$$\begin{aligned}\overline{\psi}(x)\,\partial_\mu\,\psi(x) \mapsto \overline{\psi'}(x)\,\partial_\mu\,\psi'(x) &= e^{i\alpha(x)}\overline{\psi}(x)\,\partial_\mu\big(e^{-i\alpha(x)}\psi(x)\big)\\ &= \underbrace{\overline{\psi}(x)\,\partial_\mu\,\psi(x)}_{\text{free particle}} - i\,\overline{\psi}(x)\,\underbrace{\partial_\mu\big(\alpha(x)\big)}_{\text{vector field}}\,\psi(x).\end{aligned}$$

# 14 Smooth Ragged

**Example 14.1 –** Comparison of ragged right typesetting. The first example uses `RaggedRight` of ragged2e the second `smoothraggedrightpar` of typog. Both examples share a `\fussy` setting and a 10pt wide ragged right margin.

If you want to avoid overfull boxes at all costs without trying to fix them manually, you might be tempted to set `tolerance=10000`; this allows arbitrarily bad lines to be acceptable in tough situations. But infinite tolerance is a bad idea, because TEX doesn't distinguish between terribly bad and preposterously horrible lines. Indeed, a tolerance of 10000 encourages TEX to concentrate all the badness in one place, making one truly unsightly line instead of two moderately bad ones, because a single "write-off" produces fewest total demerits according to the rules.

If you want to avoid overfull boxes at all costs without trying to fix them manually, you might be tempted to set `tolerance=10000`; this allows arbitrarily bad lines to be acceptable in tough situations. But infinite tolerance is a bad idea, because TEX doesn't distinguish between terribly bad and preposterously horrible lines. Indeed, a tolerance of 10000 encourages TEX to concentrate all the badness in one place, making one truly unsightly line instead of two moderately bad ones, because a single "write-off" produces fewest total demerits according to the rules.

*The sample text was taken from The TEXbook [1, p. 101].*

The font used in this example is Inter regular, 9/11.

`\parindent`=15.0pt, visually: | |;
`\smoothraggedrightleftskip`=0.0pt. `\smoothraggedrightparindent`=0.0pt.

If you want to avoid overfull boxes at all costs without trying to fix them manually, you might be tempted to set `tolerance=10000`; this allows arbitrarily bad lines to be acceptable in tough situations. But infinite tolerance is a bad idea, because TEX doesn't distinguish between terribly bad and preposterously horrible lines. Indeed, a tolerance of 10000 encourages TEX to concentrate all the badness in one place, making one truly unsightly line instead of two moderately bad ones, because a single "write-off" produces fewest total demerits according to the rules.

If you want to avoid overfull boxes at all costs without trying to fix them manually, you might be tempted to set `tolerance=10000`; this allows arbitrarily bad lines to be acceptable in tough situations. But infinite tolerance is a bad idea, because TEX doesn't distinguish between terribly bad and preposterously horrible lines. Indeed, a tolerance of 10000 encourages TEX to concentrate all the badness in one place, making one truly unsightly line instead of two moderately bad ones, because a single "write-off" produces fewest total demerits according to the rules.

Eine Abbildung oder ein Operator $A$ heißen nilpotent vom Grad $k$, falls $k \in N$ die kleinste Zahl ist, für die gilt: $A^k = 0$.

Eine Abbildung oder ein Operator $A$ heißen nilpotent vom Grad $k$, falls $k \in N$ die kleinste Zahl ist, für die gilt: $A^k = 0$.

# References

[1] KNUTH, D. E., *The TEXbook*, Vol. A of Computers&Typesetting, Addison Wesley, Reading/MA, 1986.