The Pemberley Package

Adrian Rettich

February 21, 2020

1 Synopsis

This package provides some basic formatting fixes useful for most mathematical purposes. It also forms the base of the following much more extensive packages:

pemberleymath Lots and lots of math macros.

pemberleythm A fixed version of **amsthm** that uses the same counter for all types of theorems. Works with **hyperref** and/or **autoref**.

pemberleythesis Provides commands to easily typeset a TUK thesis, from title page to Eidesstattliche Erklärung.

pemberleytuk Allows to write documents using the corporate design guidelines of the TUK (minus the font ptsans, because I still have not gotten it to work with pdflatex). Regarding this, also have a look at the **tukposter** document class.

2 Loaded Packages

Pemberley requires the **pgfopts**, **ifthen**, **iflang**, and **xparse** packages due to the way the internal logic is implemented.
Unless in an environment that natively supports unicode input (xetex or luatex), Pemberley also automatically loads **inputenc** with the *utf8* option and **fontenc** with the *T1* option.
Unless told not to via the *nohyper* option, the **hyperref** package is loaded to place links in PDF files.
Finally, unless you pass the option *nocolor*, the **xcolor** package with the *dvipsnames* option will be loaded because it is just so useful.

3 Formatting

If you only want to use Pemberley's other features, but want all formatting to stay as it was before, load Pemberley with the *nocosmetics* option. You can also enable only some of the features described here, cf. section 6.

3.1 Paragraph Indent

Indenting the first line of a paragraph looks awful (to me), so Pemberley gets rid of that.
You can get your indentation back by using the *nofixindent* option, or set a custom indent by passing a length to the *parindent* option.

3.2 Inline Math

Line breaks in inline math are terrible to read. LaTeX does not always agree, so Pemberley fixes this by forbidding inline math breaks entirely. If this leads to overfull hboxes, you will have to reformulate your sentence or consider an equation environment.
You can disable this behavior by passing the *nofixinline* option, but I really do not recommend it. Having a line break after the arrow in $f\colon A \to B$ looks, and always will look, unprofessional.

3.3 Enumerations

Pemberley changes the default enumerator to alphanumeric, i.e. a, b, c rather than i, ii, iii.
You can revert this by using the standard LaTeX commands, or by passing the *noalphenumi* option.

3.4 amsbook

In the **amsbook** class, page numbers are placed in the top corners, except for the first page of a chapter, where the number is banished to the bottom of the page. To me, that looks incredibly weird.
If you load Pemberley in a document of the **amsbook** class, it fixes said class such the page numbers are placed consistently even on the first page of a chapter.
You can of course suppress this behavior (you monster!) by passing the *nofixbook* option.
If your document class is not (a descendant of) **amsbook**, Pemberley of course leaves your page numbers alone.

4 Metadata

Unless you specified the *nohyper* option, Pemberley automatically adds some metadata to the pdf, namely the author and title fields. This only works if you set \author and/or \title *before* \begin{document} and *after* your \usepackage commands (which is good practice anyway).
This does not work if you are also using the **pdfx** package, in which case you should refer to that package's documentation.

5 Macros

Pemberley provides the following additional macros.

\(, \) These are aliases for \left(and \right). Note that this means you can not use \(and \) to enter and exit inline math mode, but who does that anyway? (In case you do, you can revert to that behavior by loading Pemberley with the *noparens* option.)

\todo{<*todo*>} Puts a big red impossible-to-overlook TODO in your text.

\theauthor, \thetitle, \thedate Normally, it is impossible to retrieve the data set via the \author, \title, and \date commands once \maketitle has been used. Pemberley retains these values and makes them available through these three macros.

\email, \theemail An addition to the \author etc. values. Will not appear on any title page by default, but can be retrieved as \theemail. Should your document class already define an \email command (as e.g. amsart does), then Pemberley leaves it intact, but still makes the value accessible as \theemail.

\IfGermanTF{*then*}{*else*} Check whether the current language (cf. section 7) is *ngerman*, execute first argument if yes, second argument otherwise. A word of caution to LaTeX hackers: this macro is not expandable. You may have a look at the package source code, where I have documented a workaround in case you need an expandable version.

********** TODO **********
put an example for the \todo command here.[1]
****

6 Options

The following options can be passed to **pemberley**:

lang=<*lang*> Sets the language of the document to <*lang*>, where the language names are the same as for the **babel** package. This option defaults to *english*. Note: if you are using **babel**, this option is ignored and the current babel language used instead. See also the next section.

parindent=<*len*> Sets the parindent to <*len*>.

nocolor Skips loading **xcolor**.

nohyper Skips loading **hyperref**.

[1] Now that I have done so, I guess I could remove that TODO, but then I would be stuck in a loop.

paracol Loads the **paracol** package, which allows switching from one to multiple columns and back in a single paragraph. Pemberley keeps footnotes per page rather than per column with this environment.

footnotereset Numbers footnotes per page rather than per document.

nocosmetics Disable everything described in the **Formatting** section and keep \(and \) as math mode delimiters. Basically, use this option if you like some of Pemberley's macros, but do not want the package to change anything in your document.

In case you like some, but not all of the cosmetic features, you can easily disable only some of them:

nofixindent Keep default indentation at the beginning of paragraphs.

nofixinline Allow line breaks inside equations.

noalphenumi Keep the default enumerator.

noparens Do not renew the \(and \) commands.

nofixbook If you are using the **amsbook** class, use this to disable the page number fix described earlier.

Of course, none of the above are useful if you passed *nocosmetics*.
In case you only like some of these features, you can also *en*able those by passing *fixindent*, *fixinline*, *alphenumi*, *parens*, and/or *fixbook*. As soon as you specify any of these, all cosmetic features you did *not* explicitly enable are disabled.

6.1 Extensions

If you use any of the Pemberley descendants (PemberleyMath and friends) or one of my classes (tukposter), then those will automatically load Pemberley. You can pass any Pemberley options to one of those packages or classes, and they will automatically be handed down to Pemberley to process.

7 Languages

Pemberley currently supports the languages *english* and *ngerman*. You can either set one of these via the *lang* option, or you can make use of **babel**'s *selectlanguage* feature.
Any language other than *english* and *ngerman* will make Pemberley default to English (which only affects some strings such as the auto-translation of department names in **pemberleytuk**; everything else will of course continue working).

8 License

THE COFFEEWARE LICENSE
Adrian Rettich (adrian.rettich@gmail.com) wrote this file. As long as you retain this notice, you can do whatever you want with this stuff. If we meet in person someday, and you think this stuff is worth it, you are welcome to buy me a coffee in return.

You can use this license text in your own document by invoking the \coffeeware command. It will use the name set via \author and the email address from \email.