

The mathphysletter class

Arno L. Trautmann*

March 29, 2009

Abstract

With the `mathletter` class, members of the mathphys-FS of Heidelberg can write letters in the corporate design of the university. The handling tries to be very easy and intuitive.

1 Important Notices:

To use this class, please read section User Interface carefully. This class must be compiled with \LaTeX . If you don't know about \LaTeX and how to use it, feel free to contact the author. You need to have the file `unilogo.jpg` in the folder you're operating in! Maybe the path will change, but you need the picture to successfully compile your document. In future versions, the font Goudy Old Style might be used. Then you have to have this font available.

2 User Interface

At the moment, there are 5 commands for the user. Use them as `\Empfänger{An \ den Senat}` ect.

Empfänger This is the "to"-field an a letter. Use `\` to separate the lines.

Anrede This is used for the opening. E. g. say `\Anrede{Sehr geehrte Damen und Herren,}`

Ansprechperson The contact person in the right column under the entry "Ansprechperson".

Email The e-mail address of this person.

Please notize these are case-sensitive! The last user command is `\ZweiteSeite`. This command is very important if you write a letter with more than one page. At the end of the first page, you *must* use this command to end the last paragraph on that page. A new page will begin and now you can type just as you like.

Why this complicated method? \TeX itself cannot change the textwidth in a paragraph because of its (otherwise superb) paragraph-building algorithm. So this dirty workaround is needed. Maybe in future versions the last paragraph will be implemented in a special way so this could be omitted.

*arno.trautmann@gmx.de

3 Implementation

3.1 Preamble Settings

`xkeyval` is needed to define some keys for the layout. Not yet used, but necessary in the future.

`scr1ttr2` is used to produce the letters. Loading of packages and passing of options:

```
1 \RequirePackage{xkeyval}
2
3 \LoadClass[ngerman]{scr1ttr2}
4
5 \RequirePackage{
6   babel,
7   graphicx,
8   marginnote,
9   scrpage2,
10  xcolor,
11  xltextra
12 }
13
14 \RequirePackage[top=4cm,headheight=2.5cm]{geometry}
```

3.2 The Right Column

The right column is set using the following text:

```
15 \newcommand\mathphysaddr{\small
16 Fachschaft MathPhys\\
17 Im Neuenheimer Feld\\
18 305\\
19 69120 Heidelberg\\ \\
20 Tel.:\\
21 +49(0)\,62\,21/54\,24\,56\\
22 Fax.:\\
23 +49(0)\,62\,21/54\,24\,57\\ \\
24 E-Mail:\\
25 fachschaft@mathphys.\,fsk.uni-heidelberg.de\vspace{5em}\\
26 Datum\\
27 \today
28 \\ \\
29 Ansprechperson \\
30 \Ansprech \\ \\
31 E-Mail\\
32 \EMail
33 }
```

3.3 Page Layout

We put the university-logo on the upper right. The date is set separately in the right column, so we don't need it in the class itself.

```
34 \ohead{\includegraphics[width=5.5cm]{unilogo}\hspace*{4mm}}
35 \setheadwidth[Opt]{text}
36 \setfootwidth{head}
37
38 \date{}
```

The backaddress might change. Nevertheless, this will be the default value:

```
39 \setkomavar{backaddress}{Universität Heidelberg Fachschaftskonferenz
40                               Albert-Überle-Straße 3-5 69120 Heidelberg}
```

Now, this is the dirty way to enable the smaller textwidth on the first page. This is not nice T_EX-code at all, feel free to mail me an improved version or any suggestions!

We redefine `\par` to insert a `\parshape` at the end of every paragraph. That will shorten the lines to the amount we want it. At the end of the first page, this definition is revoked and everything will go on the normal way. The `pagenumber` will be inserted from the second page on.

```
41 \let\oldpar\par
42 \def\par{\parshape 1 0cm 12cm \oldpar}
43
44 \def\endoffirstpage{
45   \par
46   \let\par\oldpar\clearpage
47   \ofoot{
48     \color[rgb]{0.63137 0.090196 0.18431}
49     \linethickness{.4mm}
50     \line(0,-1){2}\line(0,1){10}\,
51     \normalcolor\thepage
52   }
53 }
54 \pagestyle{scrheadings}
55 \cfoot{}
```

3.4 Macros for User Interaction

The following macros are defined for user interaction. See section User Interface.

```
56 \newcommand\Empfänger[1]{\def\Empf{#1}}
57 \newcommand\Anrede[1]{\def\Anre{#1}}
58
59 \newcommand\Ansprechperson[1]{\def\Ansprech{#1}}
60 \newcommand\Email[1]{\def\EMail{#1}}
61
62 \newcommand\ZweiteSeite{\endoffirstpage}
```

And that's it for the preamble.

As the letter should be typeset automatically, the `\begin{letter}{}{} and \opening{} are set automatically. The command \thispagestyle{scrheadings} is needed because scr1ttr2 defines another pagestyle for the first page. \ofoot{} suppresses the pagenumber for the first page.`

With `\marginnote`, the right column is set. This code is a great mess, don't copy it into another document, it will very shure break something.

```

63 \AtBeginDocument{
64   \begin{letter}{\Empf}
65   \opening{\Anre}
66   \thispagestyle{scrheadings}
67   \ofoot{}
68   \marginnote{
69     \put(-80,0){
70       \begin{minipage}[b]{5cm}
71         \vspace*{-7cm}
72         \mathphysaddr
73       \end{minipage}
74     }
75   }
76 }

```

At the end of the document, the letter is closed.

```

77 \AtEndDocument{
78 \end{letter}
79 }

```

And that's it finally. Happy \TeX ing!