The mathphysletter class

or: letters in the style of the university of Heidelberg

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Abstract

With the `mathphysletter` class, members of the mathphys-FS of Heidelberg can write letters in the corporate design of the university.[1] The user interface tries to be very easy and intuitive.

1 Important Notes

To use this class, please read section 2: User Interface carefully. This class must be compiled with LuaLaTeX. If you don't know about LuaLaTeX 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. The fonts `Goudy Old Style` and `Arial Regular`[2] are used. If you don't have this font, please contact the author or say `\documentclass[freefonts]{mathphysletter}`. Then the `lmodern` fonts will be used for the whole document.

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[1]http://www.uni-heidelberg.de/intern/cd/manual.html

[2]Maybe these fonts have different names on your operating system. Please contact the author if you notice any problems regarding fonts.

Contents

2   User Interface

At the moment, there are 9 commands for the user. The red commands have to be used in the preamble; the black ones must *not* be used in the preamble! See section 4 for an example.

Empfänger   This is the "to"-field of the letter. Use \\ to separate the lines.

Anrede   This is used for the opening, like `\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.

Rückadresse   The content of the "backaddress"-field. Default is the address of the FSK.

Gruß   Sets a greeting under the letter. Please use it at the place in the document where it belongs. Do not set this one or the following commands into the preamble!

PS   For a post scriptum.

Anlagen   Enclosings.

Kopie   cc to other persons.

Please notize that these commands are case-sensitive!

That's everything a normal user has to know about this class. The following section describes the implementation. Section 4 gives an example how to use this class.

3   Implementation

3.1   Preamble Settings

`xkeyval` is needed to define some keys for the layout. Not yet used, but necessary in the future.
`scrlttr2` is used to produce the letters. Loading of packages and passing of options:

```
 1 \RequirePackage{xkeyval}
 2 \newif \iffreefonts
 3 \newif \ifbiolinum
 4 \freefontsfalse
 5 \biolinumfalse
 6 \DeclareOptionX{freefonts}{\freefontstrue}
 7 \DeclareOptionX{nicefonts}{\freefontstrue} %% ok, Libertine /is/ a  good font, so these are syn
 8 \DeclareOptionX{biolinum}{\biolinumtrue} %% for goudy plus Libertine instead of Arial
 9 \ProcessOptionsX
10
11 \LoadClass[ngerman]{scrlttr2}
12
13 \RequirePackage{
14   babel,
15   geometry,
16   graphicx,
17   marginnote,
18   scrpage2,
19   xcolor,
20   fontspec
21 }
22
23
24 %% setting the fonts.
25 %% default is: main font = sans font = Arial (which is ugly) plus goudy for roman
26 %% nice/free is: main font = sans font = Biolinum, plus Libertine for rm
27 %% „biolinum" is: main font = sans font = Biolinum, plus goudy for roman
28 %%
29 %% so we set up the fonts as meant, using main and sans. then we say that main is sans and call
30 \iffreefonts
31   \setmainfont{Linux Libertine}
32   \setsansfont{Linux Biolinum}
33 \else %% then its either default or biolinum
34   \setmainfont{Goudy-Old-Style}
35   \ifbiolinum
36     \setsansfont{Linux Biolinum}
37   \else
38     \setsansfont{Arial} %% default, sadly …
39   \fi
40 \fi
```

We need heavy use of geometry to achieve the layout:

```
41 \geometry{
42   top=60.5mm,
43   headheight=30mm,
44   %headsep=50mm,
45   headsep=0mm,
46   bottom=45mm,
47   right=68mm,
48   marginparsep=19mm,
```

```
49   marginpar=65mm,
50   bindingoffset=0mm,
51   left=25mm,
52 }
```

3.2   The Right Column

The right column is set using the following command. If `freefonts` is not set, it is written using Goudy-Old-Style font, else lmodern will be used.

```
53 \def\unired{
54   \color[rgb]{
55     0.650980392157,
56     0.207843137255,
57     0.18431372549
58   }
59 }
60
61
62 %% FIXME: This should be variable.
63 % first suggestion: give optional arguments to the macro
64 % the default would then be the MP fachschaft
65 \newcommand\mathphysaddr{\small
66 \iffreefonts
67   \rmfamily
68 \else
69   \fontspec{Goudy-Old-Style}
70 \fi
71
72 \fontsize{9pt}{13pt}\selectfont
73 Fachschaft MathPhys\\
74 Im Neuenheimer Feld 305\\
75 D-69120 Heidelberg\\ \\
76 Fon: +49(0)\,62\,21/54\,24\,56\\
77 Fax: +49(0)\,62\,21/54\,24\,57\\ \\
78 E-Mail:\\
79 fachschaft@mathphys.\\fsk.uni-heidelberg.de\vspace{24mm}\\
80 \today
81 \\ \\
82 Ansprechperson \\
83 \Ansprech\\ \\
84 E-Mail\\
85 \EMail
86 }
```

3.3   Page Layout

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

```
87 \date{}
```

```
88
89 \pagestyle{scrheadings}
90 \ihead{\hspace*{80mm}\includegraphics[height=45mm]{unilogo}}
91 \setheadwidth[0pt]{text}
92
93 \setfootwidth{text}
94 \cfoot{}
95 \ifoot{\vspace*{-15mm}\\\hspace*{121mm}
96   \mbox{\rm\fontsize{9pt}{13pt}
97   \iffreefonts\else
98   \fontspec{Goudy-Old-Style}
99   \fi\linethickness{.3mm}
100  \put(0,0){\unired\line(0,-1){80}}
101  \put(0,0){\unired\line(0,1){9}}
102  \hspace*{3mm}
103  Seite \thepage}
104 }
```

3.4 Macros for User Interaction

The following macros are defined for user interaction. See section User Interface. Attention: \ZweiteSeite does not work so far! Has to be fixed.

```
105 \newcommand\Empfänger[1]{\def\Empf{#1}}
106 \newcommand\Anrede[1]{\def\Anre{#1}}
107
108 \newcommand\Ansprechperson[1]{\def\Ansprech{#1}}
109 \newcommand\Email[1]{\def\EMail{#1}}
110 \newcommand\ZweiteSeite{\endoffirstpage}
111 \def\endoffirstpage{\pagebreak}
112
113 \setkomavar{backaddress}{Universität Heidelberg Fachschaftskonferenz
114                          Albert-Überle-Straße 3-5 69120 Heidelberg}
115
116 \newcommand\Rückadresse[1]{\setkomavar{backaddress}{#1}}
117 \newcommand\Gruß[1]{\closing{#1}}
118 \newcommand\PS[1]{\ps{#1}}
119 \newcommand\Anlage[1]{\setkomavar*{enclseparator}{Anlage}\encl{#1}}
120 \newcommand\Anlagen[1]{\setkomavar*{enclseparator}{Anlagen}\encl{#1}}
121 \newcommand\Kopie[1]{\cc{#1}}
```

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 scrlttr2 defines another pagestyle for the first page. \ofoot{} suppresses the pagenumber for the first page.

If freefonts is set, lmodern is the default font of the document. Else Arial will be used; both are set in 10pt with 13pt skip.

```
122 \renewcommand\familydefault{\sfdefault}
123 \iffreefonts
```

```
124 \relax
125 \else
126   \setsansfont{Arial}
127   \setkomafont{backaddress}{\fontspec{Goudy-Old-Style}}
128   \setkomafont{addressee}{\fontspec{Goudy-Old-Style}}  %% yes, the komafont is addressee with t
129 \fi
130
131 \AtBeginDocument{
132 \fontsize{10}{13}\selectfont
133   \begin{letter}{\Empf}
134   \opening{\Anre}
135   \thispagestyle{scrheadings}
136   \marginnote{\hspace*{-12mm}
137   \begin{minipage}{\marginparwidth}\vspace*{-30mm}\mathphysaddr\end{minipage} %%-39.5mm-13pt  %
138   }
139 }
```

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

```
140 \AtEndDocument{
141 \end{letter}
142 }
```

And that's it. Happy TEXing!

4   Example Document

This is a short document showing the usage of the `mathphysletter` class.

```
\documentclass[ngerman,freefonts]{mathphysletter} %The language must be given!
\usepackage{mypackage} % load whatever special package you need
\Empfänger{An \\ Die kleine Hexe \\ Blocksberg 7 \\ 666 Blocksberghausen}
\Ansprechperson{Die große Hexe}
\Email{grosse.hexe@blocksmail.org}
\Anrede{Liebe kleine Hexe!}
\begin{document}
Können wir dich dieses Jahr wieder besuchen? Ich freue mich schon sehr auf
die tolle Feier. Fritz will dir auch noch schreiben, aber auf der nächsten
Seite. \ZweiteSeite
Hallo Hexe!\\
Ich bin's, der Fritz. Freue mich, dich wieder zu sehen! Die Einladung für
meinen Geburtstag habe ich beigelegt.

\Gruß{Lieben Gruß\\ Fritz}
\PS{ps: Auch von der großen Hexe}
\Anlage{Einladung zu Fritz' Geburtstag}
\end{document}
```