

The mathphys-article Class.*

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Abstract

A class to typeset generic documents in the official format and with the official logo of Fachschaft MathPhys at the Heidelberg University. It's derived from the `scrartcl` class by Markus Kohm.

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1 Introduction

The `mathphys-article` class is derived from the `scrartcl` class out of the KOMA bundle. It makes very little changes to the macros of the original class. What it does is to make sure there is the right Logo in the upper right and a footer on the lower right corner of each page.

There are a few files needed to use `mathphys-article`, these include:

- `mathphys-article.pdf`: this documentation, derived from `mathphys-article.dtx`
- `mathphys-article.cls`: the class file, also derived from `mathphys-article.dtx`, if you got this pdf file by running `pdfLATEX` you probably will have gotten the class file as well.
- `MathPhysLogo*.pdf`: vector images of the association's logos, going to be placed in the upper right corner of each letter.

2 Usage

You can use this class the same way you use the `scrartcl` class. Have fun!

*This document corresponds to `mathphys-article` v1.2, dated 2016/02/21

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2.1 Colors

`\color{unihd}`
`\textcolor{unihd}{text}` `mathphys-letter` uses the `xcolor` package to define colored parts of the letterhead (i.e. the line and contact information in the footer). The Heidelberg University's house color (a dark red) is defined under the name `unihd` and can be used via the macros `\color{unihd}` and `\textcolor{unihd}{text}`.

2.2 Language Support

Language support is not yet implemented. You can only use this class in German right now. Look for updates in a newer version.

3 Implementation

Load the underlying class `scrlltr2` and set all the required options:

```
1 \LoadClass[
2     fontsize=11pt,
3 ]{scrartcl}[2011/04/02]
```

Load all the required packages

```
4 \RequirePackage{
5     geometry,
6     graphicx,      % use graphic-files
7     ifthen,
8     kvoptions,     % key=value-stuff
9     lastpage,      % page n of m
10    marvosym,       % for the little phone and fax symbols
11    scrpage2,
12    tikz,           % used for absolute placing of logo and stuff
13    xcolor,         % colored text
14    hyperref,       % use cool pdf-features
15 }
16 \RequirePackage[mono=false]{libertine} % use linux-libertine font family
```

Set page dimensions as we need them:

```
17 \geometry{
18     a4paper,
19     top=5cm,
20     bottom=4cm,
21 }
22 \pagestyle{scrheadings}
23 \hypersetup{
24     pdfborder={0 0 0},
25 }
```

Process key-value-options:

```
26 \SetupKeyvalOptions{
27     family=MathPhys,
28     prefix=MathPhys@
29 }
30 \DeclareStringOption[default]{fachschaft}
31 \ProcessKeyvalOptions {MathPhys}
32 \ifthenelse{\equal{\MathPhys@fachschaft}{mathe}\or\equal{\MathPhys@fachschaft}{mathematik}}{\do
33 \ifthenelse{\equal{\MathPhys@fachschaft}{physik}}{\def\MathPhysLogo{\MathPhysLogoPhysik}}{\do
34 \ifthenelse{\equal{\MathPhys@fachschaft}{info}\or\equal{\MathPhys@fachschaft}{informatik}}{\do
35 \ifthenelse{\equal{\MathPhys@fachschaft}{mathinf}}{\def\MathPhysLogo{\MathPhysLogoMathInf}}{\do
36 \def\MathPhysLogo{\MathPhysLogo}}}}}
```

`\MathPhysSetLogo` Define how the logo is placed:

```
37 \iftrue
38 \def\MathPhysSetLogo{
39     \tikz [remember picture,overlay]
40     \node [shift={(-46.15mm,-19.12mm)}]
41         at (current page.north east)
42         {\includegraphics%[width=92.29mm, height=38.24mm]
43          {\MathPhysLogo.pdf}};
```

```

44 \tikz [remember picture,overlay]
45   \node [shift={(-59.71mm,19.12mm)}]
46     at (current page.south east)
47       {\textcolor{unihd}{\rule{0.859mm}{26.241mm}}};
48 }

```

`\MathPhysSetFooter` Define how the footer (contact informations) is placed:

```

49 \def\MathPhysSetFooter{
50 \tikz [remember picture,overlay]
51 \node [
52 shift={(-85.21mm,19.12mm)}
53 ]
54   at (current page.south east)
55   {\parbox{4.4cm}{
56     \color{gray}
57     \sffamily
58     \scriptsize
59     \begin{flushright}
60       \Telefon\quad 06221\,,54-4167\\
61       \FAX\quad 06221\,,54-4271\\
62       \Letter\quad \href{mailto:mathphys@uni-hd.de}{\color{gray}mathphys@uni-hd.de}\\
63       \href{http://mathphys.uni-hd.de}{\color{gray}http://mathphys.uni-hd.de}
64     \end{flushright}
65   }};
66 \tikz [remember picture,overlay]
67 \node [
68 shift={(-34.01mm,19.12mm)}
69 ]
70   at (current page.south east)
71   {\parbox{4.4cm}{
72     \color{gray}
73     \sffamily
74     \scriptsize
75     \begin{flushleft}
76       Fachschaft MathPhys\\
77       Im Neuenheimer Feld 305\\
78       Raum 045\\
79 69120 Heidelberg
80     \end{flushleft}
81   }};
82 }

```

`\MathPhysSetPageNumber` Place “page n of m ” on consecutive pages:

```

83 \def\MathPhysSetPageNumber{
84 \tikz [remember picture,overlay]
85 \node [shift={(-29.4mm,-42.98mm)}]
86   at (current page.north east)
87   {\parbox{4.4cm}{\textcolor{gray}{\raggedleft\normalfont \rmfamily Seite \thepage\ von \pagetotal}}}
88 }
89 \def\MathPhysSetPageNumberEven{
90 \tikz [remember picture,overlay]
91 \node [shift={(53.5mm,-42.98mm)}]
92   at (current page.north west)
93   {\parbox{4.4cm}{\textcolor{gray}{\raggedright\normalfont \rmfamily Seite \thepage\ von \pagetotal}}}

```

```
94 }
```

Now call the above macros in the right time:

```
95 \rohead{\MathPhysSetLogo \ifthenelse{\equal{\thepage}{1}}{\}\{\MathPhysSetPageNumber}\}  
96 \rofoot{\ifthenelse{\equal{\thepage}{1}}{\}\{\MathPhysSetFooter}\}\}  
97 \lehead{\MathPhysSetPageNumberEven}  
98 \lefoot{\  
99 %\cfoot{\  
100  
101 \let\oldmaketitle\maketitle  
102 \def\maketitle{\oldmaketitle\thispagestyle{scrheadings}}
```

unihd Last but not least, define the color **unihd**:

```
103 \iftrue  
104 \definecolor{unihd}{RGB}{153,0,0}  
105 \else  
106 \definecolor{unihd}{cmyk}{0,1,1,.4}  
107 \fi
```

References

- [1] M. Kohm, J.-U. Morowski: *KOMA-Skript*, 2009