Slides and Course Notes*

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Abstract

We present a document class from which we can generate both course slides and course notes in a transparent way.

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^{*}Version ? (last revised ?)

1 Introduction

The mikoslides document class is derived from beamer.cls [Tana], it adds a "notes version" for course notes derived from the omdoc class [Kohlhase:smomdl] that is more suited to printing than the one supplied by beamer.cls.

2 The User Interface

The mikoslides class takes the notion of a slide frame from Till Tantau's excellent beamer class and adapts its notion of frames for use in the STEXand OMDoc. To support semantic course notes, it extends the notion of mixing frames and explanatory text, but rather than treating the frames as images (or integrating their contents into the flowing text), the mikoslides package displays the slides as such in the course notes to give students a visual anchor into the slide presentation in the course (and to distinguish the different writing styles in slides and course notes).

In practice we want to generate two documents from the same source: the slides for presentation in the lecture and the course notes as a narrative document for home study. To achieve this, the mikoslides class has two modes: *slides mode* and *notes mode* which are determined by the package option.

2.1 Package Options

The mikoslides class takes a variety of class options:¹

slides a • The options slides nd notes notes switch between slides mode and notes mode (see Section 2.2).

sectocframes

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• If the option sectocframes is given, then for the omgroups, special frames with the omgroup title (and number) are generated.

showmeta

• showmeta. If this is set, then the metadata keys are shown (see [Koh20b] for details and customization options).

frameimages fiboxed

• If the option frameimages is set, then slide mode also shows the \frameimage-generated frames. If also the fiboxed option is given, the slides are surrounded by a box.

topsect

• topsect= $\langle sect \rangle$ can be used to specify the top-level sectioning level; the default for $\langle sect \rangle$ is section.

mh

• The mh option turns on MathHub support; see [Koh20a].

2.2 Notes and Slides

frame

Slides are represented with the frame just like in the beamer class, see [Tanb] for details. The mikoslides class adds the note environment for encapsulating the

¹EdNote: leaving out noproblems for the moment until we decide what to do with it.

course note fragments.¹

Note that it is essential to start and end the notes environment at the start of the line – in particular, there may not be leading blanks – else IATEX becomes confused and throws error messages that are difficult to decipher.

```
\ifnotes\maketitle\else
\frame[noframenumbering]\maketitle\fi

\begin{note}
  We start this course with ...
\end{note}

\begin{frame}
  \frametitle{The first slide}
  ...
\end{frame}
\begin{note}
  ... and more explanatory text
\end{note}

\begin{frame}
  \begin{frame}
  ... and sore explanatory text
\end{note}

\begin{frame}
  \begin{frame}
  ... \end{frame}
  ...
\end{frame}
  ...
\end{frame}
  ...
\end{frame}
  ...
\end{frame}
```

Example 1: A typical Course Notes File

By interleaving the frame and note environments, we can build course notes as shown in Figure 1.

\ifnotes

Note the use of the \ifnotes conditional, which allows different treatment between notes and slides mode – manually setting \notestrue or \notesfalse is strongly discouraged however.

A: We need to give the title frame the noframenumbering option so that the frame numbering is kept in sync between the slides and the course notes.

A: The beamer class recommends not to use the allowframebreaks option on frames (even though it is very convenient). This holds even more in the mikoslides case: At least in conjunction with \newpage, frame numbering behaves funnily (we have tried to fix this, but who knows).

Sometimes, we want to integrate slides as images after all – e.g. because we already have a PowerPoint presentation, to which we want to add STEXnotes. In this case we can use $\frac{\langle opt \rangle}{\langle path \rangle}$, where $\langle opt \rangle$ are the options of $\frac{\langle opt \rangle}{\langle opt \rangle}$ is the file path (extension can be left off like in $\frac{\langle opt \rangle}{\langle opt \rangle}$). We have added the label

\frameimage

¹MK: it would be very nice, if we did not need this environment, and this should be possible in principle, but not without intensive LaTeX trickery. Hints to the author are welcome.

EdN:2

key that allows to give a frame label that can be referenced like a regular ${\tt beamer}$ frame.²

If we want to transclude a the contents of a file as a note, we can use the \inputref* \inputref* macro: \inputref*{foo} is equivalent to

\begin{note}
 \inputref{foo}
\end{note}

nomtext

There are some environments that tend to occur at the top-level of note environments. We make convenience versions of these: e.g. the nomtext environment is just an omtext inside a note environment (but looks nicer in the source, since it avoids one level of source indenting). Similarly, we have the nomgroup environment.

nomgroup

2.3 Header and Footer Lines

2.4 Colors and Highlighting

\textwarning

The \textwarning macro generates a warning sign:

- 2.5 Front Matter, Titles, etc
- 2.6 Miscellaneous

3 Limitations

In this section we document known limitations. If you want to help alleviate them, please feel free to contact the package author. Some of them are currently discussed in the STEXGitHub repository [sTeX].

1. when option book which uses \pagestyle{headings} is given and semantic macros are given in the omgroup titles, then they sometimes are not defined by the time the heading is formatted. Need to look into how the headings are made. This is a problem of the underlying omdoc package.

4 The Implementation

4.1 Class and Package Options

We define some Package Options and switches for the mikoslides class and activate them by passing them on to beamer.cls and omdoc.cls and the mikoslides package. We pass the nontheorem option to the statements package when we are

 $^{^{2}\}mathrm{EdNote}\colon$ MK: the hyperref link does not seem to work yet. I wonder why but do not have the time to fix it.

not in notes mode, since the beamer package has its own (overlay-aware) theorem environments.

```
1 (*cls)
2 \RequirePackage{stex-base}
3 \RequirePackage{kvoptions}
4 \RequirePackage{etoolbox}
5 \SetupKeyvalOptions{family=mks@cls,prefix=mks@cls@}
6 \DeclareStringOption[article]{class}
\label{locality} $$7 \AddToKeyvalOption*{class}{\PassOptionsToClass{class=\mks@cls@class}{omdoc}$$
    \ifdefstring{\mks@cls@class}{report}{\PassOptionsToPackage{defaulttopsect=part}{mikoslides}}}
10 \DeclareBoolOption{notes}
11 \DeclareComplementaryOption{slides}{notes}
12 \DeclareDefaultOption{%
   \PassOptionsToClass{\CurrentOption}{omdoc}
   \PassOptionsToClass{\CurrentOption}{beamer}
   \PassOptionsToPackage{\CurrentOption}{mikoslides}}
16 \ProcessKeyvalOptions{mks@cls}
17 (/cls)
now we do the same for the mikoslides package.
18 (*package)
19 \RequirePackage{stex-base}
20 \RequirePackage{kvoptions}
21 \SetupKeyvalOptions{family=mks@sty,prefix=mks@sty@}
22 \DeclareStringOption{topsect}
23 \DeclareStringOption{defaulttopsect}
24 \DeclareBoolOption{mh}
25 \AddToKeyvalOption*{mh}{
    \PassOptionsToPackage{mh}{stex}
    \PassOptionsToPackage{mh}{smglom}
27
    \PassOptionsToPackage{mh}{tikzinput}}
29 \newif\ifnotes\notestrue
30 \DeclareBoolOption{notes}
31 \AddToKeyvalOption*{notes}{\notestrue\PassOptionsToPackage{notes}{statements}}
32 \DeclareComplementaryOption{slides}{notes}
33 \AddToKeyvalOption*{slides}{\notesfalse\PassOptionsToPackage{nontheorem}{statements}}
34 \DeclareBoolOption{sectocframes}
35 \DeclareBoolOption{frameimages}
36 \DeclareBoolOption{fiboxed}
37 \DeclareBoolOption{noproblems}
38 \DeclareDefaultOption{%
    \PassOptionsToPackage{\CurrentOption}{stex}
    \PassOptionsToPackage{\CurrentOption}{smglom}
    \PassOptionsToPackage{\CurrentOption}{tikzinput}}
42 \ProcessKeyvalOptions{mks@sty}
we give ourselves a macro \@@topsect that needs only be evaluated once, so that
the \ifdefstring conditionals work below.
43 \ \texttt{\footnote{mks@sty@topsect\\eempty\\edef\\eff@0topsect{mks@sty@defaulttopsect}}}
```

```
44 \else\edef\@@topsect{\mks@sty@topsect}\fi
45 (/package)
   Depending on the options, we either load the article-based omdoc or the
beamer class (and set some counters).
47 \ifmks@cls@notes
   \LoadClass{omdoc}
48
49 \else
    \LoadClass[10pt,notheorems,xcolor={dvipsnames,svgnames}]{beamer}
    \newcounter{Item}
51
    \newcounter{paragraph}
52
    \newcounter{subparagraph}
53
    \newcounter{Hfootnote}
54
55 \fi
now it only remains to load the mikoslides package that does all the rest.
56 \RequirePackage{mikoslides}
```

In notes mode, we also have to make the beamer-specific things available to article via the beamerarticle package. We use options to avoid loading theorem-like environments, since we want to use our own from the STEX packages. The first batch of packages we want are loaded on mikoslides.sty. These are the general ones, we will load the STEX-specific ones after we have done some work

(e.g. defined the counters m*). Only the stex-logo package is already needed now for the default theme.

57 (/cls)

```
58 (*package)
59 \ifmks@sty@notes
60 \RequirePackage{a4wide}
61 \RequirePackage{marginnote}
62 \RequirePackage [dvipsnames, svgnames] {xcolor}
63 \if@latexml\else\RequirePackage{mdframed}\fi
64 \RequirePackage[noxcolor,noamsthm]{beamerarticle}
66 \RequirePackage{etoolbox}
67 \RequirePackage{amssymb}
68 \RequirePackage{amsmath}
69 \RequirePackage{comment}
70 \RequirePackage{textcomp}
71 \RequirePackage{url}
72 \RequirePackage{graphicx}
73 \RequirePackage{stex-logo}
74 \RequirePackage{pgf}
75 \ifmks@sty@notes
76 \RequirePackage[bookmarks,bookmarksopen,bookmarksnumbered,breaklinks,hidelinks]{hyperref}
77\fi
```

finally, we require the metakeys package from STEX, so that we can use the \addmetakey mechanism.

 $78 \ \texttt{RequirePackage\{metakeys\}}$

EdN:3

4.2 Notes and Slides

For the lecture notes cases, we also provide the \usetheme macro that would otherwise come from the the beamer class. While the latter loads beamertheme $\langle theme \rangle$.sty, the notes version loads beamernotestheme $\langle theme \rangle$.sty.

- 79 \ifmks@sty@notes
- $80 \end{area} $0 \simeq [2] [] {\end{area} theme $[2] [] } $$$
- 81 \f

We define the sizes of slides in the notes. Somehow, we cannot get by with the same here.

- 82 \newcounter{slide}
- 83 \newlength{\slidewidth}\setlength{\slidewidth}{13.5cm}
- 84 \newlength{\slideheight}\setlength{\slideheight}{9cm}

note The note environment is used to leave out text in the slides mode. It does not have a counterpart in OMDoc. So for course notes, we define the note environment to be a no-operation otherwise we declare the note environment as a comment via the comment package.

- 85 \ifmks@sty@notes%
- 86 \renewenvironment{note}{\ignorespaces}{}%
- 87 \else%
- 88 \excludecomment{note}%
- 89 \fi%

We first set up the slide boxes in article mode. We set up sizes and provide a box register for the frames and a counter for the slides.

- 90 \ifmks@sty@notes
- 91 \newlength{\slideframewidth}
- 92 \setlength{\slideframewidth}{1.5pt}

frame We first define the keys.

- 93 \addmetakey{frame}{label}
- 94 \addmetakey[yes]{frame}{allowframebreaks}
- 95 \addmetakey{frame}{allowdisplaybreaks}
- 96 \addmetakey[yes]{frame}{fragile}
- 97 \addmetakey[yes]{frame}{shrink}
- 98 \addmetakey[yes]{frame}{squeeze}
- 99 \addmetakey[yes]{frame}{t}

We define the environment, read them, and construct the slide number and label.

- 100 \renewenvironment{frame}[1][]{%
- 101 \metasetkeys{frame}{#1}%
- 102 \sffamily%
- 103 \stepcounter{slide}%
- 104 \def\@currentlabel{\theslide}%
- 105 \ifx\frame@label\@empty%

 $^{^3{\}rm EDNote}\colon$ MK: This is not ideal, but I am not sure that I want to be able to provide the full theme functionality there.

```
We redefine the itemize environment so that it looks more like the one in beamer.
                                               \def\itemize@level{outer}%
                             109
                                               \def\itemize@outer{outer}%
                             110
                                               \def\itemize@inner{inner}%
                             111
                                               \renewcommand\newpage{\addtocounter{framenumber}{1}}%
                             112
                                               \renewcommand\metakeys@show@keys[2]{\marginnote{{\scriptsize ##2}}}%
                             113
                                               \renewenvironment{itemize}{%
                                                   \ifx\itemize@level\itemize@outer%
                             115
                                                        \def\itemize@label{$\rhd$}%
                             116
                                                   \fi%
                             117
                                                   \ifx\itemize@level\itemize@inner%
                             118
                                                        \def\itemize@label{$\scriptstyle\rhd$}%
                             119
                             120
                                                   \fi%
                             121
                                                   \begin{list}%
                                                   {\itemize@label}%
                             122
                             123
                                                   {\setlength{\labelsep}{.3em}%
                                                     \setlength{\labelwidth}{.5em}%
                             124
                                                     \setlength{\leftmargin}{1.5em}%
                             125
                             126
                             127
                                                   \edef\itemize@level{\itemize@inner}%
                             128
                             129
                                                   \end{list}%
                                              }%
                             130
                               We create the box with the mdframed environment from the equinymous package.
                                               \begin{mdframed}[linewidth=\slideframewidth,skipabove=1ex,skipbelow=1ex,userdefinedwidth=\s
                             131
                             132
                                         }{%
                                               \medskip\miko@slidelabel\end{mdframed}%
                             133
                                         }%
                             134
                                       Now, we need to redefine the frametitle (we are still in course notes mode).
\frametitle
                                         136 \fi %ifmks@sty@notes
                             We have to make sure that the width is overwritten, for that we check the
                               \Gin@ewidth macro from the graphicx package. We also add the label key.
                             \label{$\{137 \neq \mathbb{C} \ arabic\{slide\}} \ arabic\{slide\}\} \ arabic\{slide\} \ arab
                             138 \newrobustcmd\frameimage[2][]{%
                                         \stepcounter{slide}%
                             139
                             140
                                         \ifmks@sty@frameimages%
                                               \def\Gin@ewidth{}\setkeys{Gin}{#1}%
                             141
                                               \ifmks@sty@notes\else\vfill\fi%
                             142
                                               \begin{center}
                             143
                             144
                                                   \ifmks@sty@fiboxed%
                             145
                                                        \fbox{\ifx\Gin@ewidth\@empty\includegraphics[width=\slidewidth,#1]{#2}\else\mygraphics[
```

106

107 108 \else%

\label{\frame@label}%

```
\else
                            146
                                        \ifx\Gin@ewidth\@empty\includegraphics[width=\slidewidth,#1]{#2}\else\mygraphics[#1]{#2
                            147
                                      \fi% ifmks@sty@fiboxed
                            148
                                     \end{center}
                            149
                                    \par\strut\hfill{\footnotesize Slide \arabic{slide}}%
                            150
                            151
                                    \ifmks@sty@notes\else\vfill\fi%
                            152
                                  \fi} % ifmks@sty@frameimages
EdN:4
                     \pause
                            153 \ifmks@sty@notes\newcommand\pause{}\fi
                    nomtext
                            154 \ifmks@sty@notes\newenvironment{nomtext}[1][]{\begin{omtext}[#1]}{\end{omtext}}%
                            155 \else\excludecomment{nomtext}\fi%
                   nomgroup
                            156 \ifmks@sty@notes\newenvironment{nomgroup}[2][]{\begin{omgroup}[#1]{#2}}{\end{omgroup}}}%
                            157 \else\excludecomment{nomgroup}\fi%
                             4.3
                                    Header and Footer Lines
                             Now, we set up the infrastructure for the footer line of the slides, we use boxes
                             for the logos, so that they are only loaded once, that considerably speeds up
                             processing.
                             The default logo is the logo of Jacobs University. Customization can be done by
              \setslidelogo
                              \setslidelogo{\langle logo \ name \rangle}.
                            158 \newlength{\slidelogoheight}
                            159 \ifmks@sty@notes%
                                  \setlength{\slidelogoheight}{.4cm}%
                            161 \else%
                                  \setlength{\slidelogoheight}{1cm}%
                             163 \fi%
                            164 \newsavebox{\slidelogo}%
                            165 \sbox{\slidelogo}{\sTeX}%
                            166 \newrobustcmd{\setslidelogo}[1]{%
                                  \sbox{\slidelogo}{\includegraphics[height=\slidelogoheight]{#1}}%
                            168 }%
                             \source stores the writer's name. By default it is Michael Kohlhase since he is
                 \setsource
                             the main user and designer of this package. \ can change the
                             writer's name.
                             169 \def\source{Michael Kohlhase}% customize locally
                             170 \newrobustcmd{\setsource}[1]{\def\source{#1}}%
```

⁴EDNOTE: MK: fake it in notes mode for now

```
Now, we set up the copyright and licensing. By default we use the Creative
              Commons Attribuition-ShareAlike license to strengthen the public domain. If
              package hyperref is loaded, then we can attach a hyperlink to the license logo.
              \setlicensing[\langle url \rangle] {\langle logo\ name \rangle} is used for customization, where \langle url \rangle is op-
              tional.
             171 \def\copyrightnotice{\footnotesize\copyright:\hspace{.3ex}{\source}}%
             172 \newsavebox{\cclogo}%
             173 \sbox{\cclogo}{\includegraphics[height=\slidelogoheight]{cc_somerights}}%
             174 \newif\ifcchref\cchreffalse%
             175 \AtBeginDocument{%
                  \@ifpackageloaded{hyperref}{\cchreftrue}{\cchreffalse}
             176
             177 }%
             178 \def\licensing{%
                  \ifcchref%
             179
                     \href{http://creativecommons.org/licenses/by-sa/2.5/}{\usebox{\cclogo}}%
             180
             181
             182
                     {\usebox{\cclogo}}%
             183
                  \fi%
             184 }%
             185 \newrobustcmd{\setlicensing}[2][]{%
                  \def\@url{#1}%
             186
                   \sbox{\cclogo}{\includegraphics[height=\slidelogoheight]{#2}}%
             187
                  \ifx\@url\@empty%
             188
                    \def\licensing{{\usebox{\cclogo}}}%
             189
                  \else%
             190
                     \def\licensing{%
             191
                       \ifcchref%
             192
                       \href{#1}{\usebox{\cclogo}}%
             193
                       \else%
             194
             195
                       {\usebox{\cclogo}}%
             196
                       \fi%
                    }%
             197
                  \fi%
             198
             199 }%
\slidelabel Now, we set up the slide label for the article mode.<sup>5</sup>
             200 \newrobustcmd\miko@slidelabel{%
                  \vbox to \slidelogoheight{%
             202
                     \vss\hbox to \slidewidth%
                     {\licensing\hfill\copyrightnotice\hfill\arabic{slide}\hfill\usebox{\slidelogo}}%
             203
```

4.4 Colors and Highlighting

We first specify sans serif fonts as the default.

206 \sffamily

204 }% 205 }%

EdN:5

 $^{^5\}mathrm{EdNote}$ see that we can use the themes for the slides some day. This is all fake.

Now, we set up an infrastructure for highlighting phrases in slides. Note that we use content-oriented macros for highlighting rather than directly using color markup. The first thing to to is to adapt the green so that it is dark enough for most beamers

```
207 \AtBeginDocument{%
208 \definecolor{green}{rgb}{0,.5,0}%
209 \definecolor{purple}{cmyk}{.3,1,0,.17}%
210 }%
```

We customize the \defemph, \notemph, and \stDMemph macros with colors for the use in the statements package. Furthermore we customize the \@@lec macro for the appearance of line end comments in \lec.

```
211 % \def\STpresent#1{\textcolor{blue}{#1}}
212 \def\defemph#1{{\textcolor{magenta}{#1}}}
213 \def\termemph#1{{\textcolor{cyan}{#1}}}
214 \def\notemph#1{{\textcolor{magenta}{#1}}}
215 \def\stDMemph#1{{\textcolor{blue}{#1}}}
216 \def\@@lec#1{(\textcolor{green}{#1})}
```

I like to use the dangerous bend symbol for warnings, so we provide it here.

\textwarning as the macro can be used quite often we put it into a box register, so that it is only loaded once.

```
217 \pgfdeclareimage[width=.8em]{miko@small@dbend}{dangerous-bend}
218 \def\smalltextwarning{%
     \pgfuseimage{miko@small@dbend}%
220
     \xspace%
221 }%
222 \pgfdeclareimage [width=1.2em] {miko@dbend} {dangerous-bend}
223 \newrobustcmd\textwarning{%
     \raisebox{-.05cm}{\pgfuseimage{miko@dbend}}%
     \xspace%
225
226 }%
227 \pgfdeclareimage[width=2.5em]{miko@big@dbend}{dangerous-bend}%
228 \newrobustcmd\bigtextwarning{%
     \raisebox{-.05cm}{\pgfuseimage{miko@big@dbend}}%
230
     \xspace%
231 }%
232 \newrobustcmd\putgraphicsat[3]{%
     \begin{picture}(0,0)\put(#1){\includegraphics[#2]{#3}}\end{picture}%
233
234 }%
235 \newrobustcmd\putat[2]{%
236 \begin{picture}(0,0)\put(#1){#2}\end{picture}%
237 }%
```

Sectioning 4.5

If the sectocframes option is set, then we make section frames. We first define counters for part and chapter, which beamer.cls does not have and we make

```
the section counter which it does dependent on chapter.
               238 \ifmks@sty@sectocframes%
               239 \ifdefstring\@@topsect{part}{%
                    \newcounter{part}\newcounter{chapter}\counterwithin*{section}{chapter}}
               241 {\ifdefstring\@dtopsect{chapter}{\newcounter{chapter}\counterwithin*{section}{chapter}}{}}
               242 \fi% ifsectocframes
                    Now that we have defined the counters, we can load the ST<sub>E</sub>X-specific packages
                (in particular statements that needs these counters).
               243 \RequirePackage{stex}
               244 \RequirePackage{smglom}
               245 \RequirePackage{tikzinput}
               246\ \texttt{\fimesosty@mh\RequirePackage\{mikoslides-mh\}\fi}
                    Finally, we set the \section@level macro that governs sectioning.
\section@level
               247 \section@level=2
               248 \ifdefstring{\@@topsect}{part}
               249 {\section@level=0%
                     \def\thesection{\arabic{chapter}.\arabic{section}}%
                     \def\part@prefix{\arabic{chapter}.}}{}
               252 \left( \frac{00}{c}\right)
               253 {\section@level=1%
                     \def\thesection{\arabic{chapter}.\arabic{section}}%
                     \def\part@prefix{\arabic{chapter}.}}{}
               256 \ifmks@sty@notes\else% only in slides
               257 \renewenvironment{omgroup}[2][]{%
                     \metasetkeys{omgroup}{#1}\sref@target%
               258
                     \advance\section@level by 1%
               259
                     \ifmks@sty@sectocframes%
               260
                     \stepcounter{slide}
               261
                     \begin{frame} [noframenumbering]%
               262
                     \vfill\Large\centering%
               263
                     \red{%
               264
                       \ifcase\section@level\or
               265
                       \stepcounter{part}
               266
                267
                       \def\@@label{\omdoc@part@kw~\Roman{part}}
                268
                       \def\currentsectionlevel{\omdoc@part@kw}
                269
               270
                       \stepcounter{chapter}
                       \def\@@label{\omdoc@chapter@kw~\arabic{chapter}}
               271
                       \def\currentsectionlevel{\omdoc@chapter@kw}
               272
               273
               274
                       \stepcounter{section}
                       \def\@@label{\part@prefix\arabic{section}}
               275
                       \def\currentsectionlevel{\omdoc@section@kw}
               276
               277
                       \stepcounter{subsection}
               278
                       \def\@@label{\part@prefix\arabic{section}.\arabic{subsection}}
               279
               280
                       \def\currentsectionlevel{\omdoc@subsection@kw}
               281
                       \or
```

```
\stepcounter{subsubsection}
                                                                      282
                                                                                                       \def\@@label{\part@prefix\arabic{section}.\arabic{subsection}.\arabic{subsubsection}}
                                                                      283
                                                                                                       \def\currentsectionlevel{\omdoc@subsubsection@kw}
                                                                      284
                                                                      285
                                                                                                       \stepcounter{mparagraph}
                                                                      286
                                                                      287
                                                                                                       \label{partQprefix\arabic\{section\}.\arabic\{msubsection\}.\arabic\{subsubsection\}.\arabic\{subsubsection\}.\arabic\{subsubsection\}.\arabic\{subsubsection\}.\arabic\{subsubsection\}.\arabic\{subsubsection\}.\arabic\{subsubsection\}.\arabic\{subsubsection\}.\arabic\{subsubsection\}.\arabic\{subsubsection\}.\arabic\{subsubsection\}.\arabic\{subsubsection\}.\arabic\{subsubsection\}.\arabic\{subsubsection\}.\arabic\{subsubsection\}.\arabic\{subsubsection\}.\arabic\{subsubsection\}.\arabic\{subsubsection\}.\arabic\{subsubsection\}.\arabic\{subsubsection\}.\arabic\{subsubsection\}.\arabic\{subsubsection\}.\arabic\{subsubsection\}.\arabic\{subsubsection\}.\arabic\{subsubsection\}.\arabic\{subsubsection\}.\arabic\{subsubsection\}.\arabic\{subsubsection\}.\arabic\{subsubsection\}.\arabic\{subsubsection\}.\arabic\{subsubsection\}.\arabic\{subsubsection\}.\arabic\{subsubsection\}.\arabic\{subsubsection\}.\arabic\{subsubsection\}.\arabic\{subsubsection\}.\arabic\{subsubsection\}.\arabic\{subsubsection\}.\arabic\{subsubsection\}.\arabic\{subsubsection\}.\arabic\{subsubsection\}.\arabic\{subsubsection\}.\arabic\{subsubsection\}.\arabic\{subsubsection\}.\arabic\{subsubsection\}.\arabic\{subsubsection\}.\arabic\{subsubsection\}.\arabic\{subsubsection\}.\arabic\{subsubsection\}.\arabic\{subsubsection\}.\arabic\{subsubsection\}.\arabic\{subsubsection\}.\arabic\{subsubsection\}.\arabic\{subsubsection\}.\arabic\{subsubsection\}.\arabic\{subsubsection\}.\arabic\{subsubsection\}.\arabic\{subsubsection\}.\arabic\{subsubsection\}.\arabic\{subsubsection\}.\arabic\{subsubsection\}.\arabic\{subsubsection\}.\arabic\{subsubsection\}.\arabic\{subsubsection\}.\arabic\{subsubsection\}.\arabic\{subsubsection\}.\arabic\{subsubsection\}.\arabic\{subsubsection\}.\arabic\{subsubsection\}.\arabic\{subsubsection\}.\arabic\{subsubsection\}.\arabic\{subsubsection\}.\arabic\{subsubsection\}.\arabic\{subsubsection\}.\arabic\{subsubsection\}.\arabic\{subsubsection\}.\arabic\{subsubsection\}.\arabic\{subsubsection\}.\arabic\{subsubsection\}.\arabic\{subsubsection\}.\arabic\{subsubsection\}.\arabic\{subsubsection\}.\arabic\{subsubsection\}.\arabic\{subsubsection\}.\arabic\{subsubsection\}.\arabic\{subsubsection\}.\arabic\{su
                                                                      288
                                                                                                       \def\currentsectionlevel{\omdoc@paragraph@kw}
                                                                      289
                                                                                                       \fi% end ifcase
                                                                                                      \@@label\sref@label@id\@@label
                                                                      290
                                                                                                      \quad #2%
                                                                      291
                                                                                            }%
                                                                      292
                                                                      293
                                                                                             \vfill%
                                                                                             \end{frame}%
                                                                      294
                                                                                             \fi %ifmks@sty@sectocframes
                                                                      295
                                                                      296 }
                                                                      297 {\advance\section@level by -1}%
                                                                      298 fi\% ifmks@sty@notes
\inputref@*skip We customize the hooks for in \inputref.
                                                                      299 \texttt{\def} \texttt{\universelember} \\ \texttt{\universelembe
                                                                      300 \def\inputref@postskip{\medskip}
                     \inputref*
                                                                      301 \let\orig@inputref\inputref
                                                                      302 \def\inputref{\@ifstar\ninputref\orig@inputref}
                                                                      303 \newcommand\ninputref[2][]{\ifmks@sty@notes\orig@inputref[#1]{#2}\fi}
                                                                                                       Miscellaneous
                                                                          4.6
                                                                          We set up a beamer template for theorems like ams style, but without a block
                                                                          environment.
                                                                      304 \def\inserttheorembodyfont{\normalfont}
                                                                      305 \ifmks@sty@notes\else% only in slides
                                                                      306 \defbeamertemplate{theorem begin}{miko}
                                                                      307 {\inserttheoremheadfont\inserttheoremname\inserttheoremnumber
                                                                                             \ifx\inserttheoremaddition\@empty\else\ (\inserttheoremaddition)\fi%
                                                                                             \inserttheorempunctuation\inserttheorembodyfont\xspace}
                                                                      310 \defbeamertemplate{theorem end}{miko}{}
                                                                          and we set it as the default one.
                                                                      311 \setbeamertemplate{theorems} [miko]
                                                                          The following fixes an error I do not understand, this has something to do with
```

beamer compatibility, which has similar definitions but only up to 1.

312 \expandafter\def\csname Parent2\endcsname{}

\renewenvironment{columns}[1][]{%

313 \fi% ifmks@sty@notes 314 \ifmks@sty@notes%

\par\noindent%

\begin{minipage}%

 $\frac{315}{316}$

317

```
\verb|\slidewidth| centering \le worde| % \cite{Normalize} with the property of th
318
319
                              }{%
320
                                            \end{minipage}\par\noindent%
                              }%
321
                               \newsavebox\columnbox%
322
                               \renewenvironment<>{column}[2][]{%
323
                                             \begin{lrbox}{\columnbox}\begin{minipage}{#2}%
324
                               }{%
325
326
                                            \verb|\damnipage|\end{lrbox}\usebox\\| columnbox%|
                              }%
327
328 \fi% ifmks@sty@notes
329 \ \text{ifmks@sty@noproblems\%}
                               \newenvironment{problems}{}{}%
331 \epsilon
332
                               \excludecomment{problems}%
333 \fi%
334~\langle/\mathsf{package}\rangle
```

Change History

v0.1		$\mod e \dots 1$		
Genera	l: Initial Version 1	numbered sectocframes 1		
v0.2		this is almost done 1		
	d: course notes back on	v1.0		
	inar 1	General: adding \frameimage 1		
v0.3		v1.1		
	d: changing to Jacobs logo . 1	General: moving MathHub support		
v0.4	le moving line and comment	out to separate package 1		
General: moving line-end-comment to omdoc.dtx 1		reinterpreting omgroup 1		
	asing the whole thing on	Removing the old title macros		
	mer 1	(use the regular ones instead) \cdot . 1		
v0.5		v1.2		
Genera	l: eliminating	General: changed to keyval		
	twocolumns, this is better	class/package options, allowed		
dor	ne by beamer.cls 1	arbitrary classes 1		
v0.9		v1.3		
	l: basic options handling for	General: reusing the sectioning		
the	frame environment in notes	counters of beamer 1		
Refere				
[CR99]	the T _E X distribution. The Co	n Rathz. The graphicxl package. Part of omprehensive TEX Archive Network. 1999. prg/texlive/devsrc/Master/texmf-graphicx.pdf.		
[Koh20a]	Michael Kohlhase. <i>MathHub Support for sTeX</i> . Tech. rep. 2020. URL: https://github.com/sLaTeX/sTeX/raw/master/sty/mathhub/mathhub.pdf.			
[Koh20b]	h20b] Michael Kohlhase. metakeys.sty: A generic framework for extensible Metadata in E ^A T _E X. Tech. rep. 2020. URL: https://github.com/sLaTeX/sTeX/raw/master/sty/metakeys/metakeys.pdf.			
[sTeX]	X] sTeX: A semantic Extension of TeX/LaTeX. URL: https://github.com/sLaTeX/sTeX (visited on 05/11/2020).			
[Tana]	Till Tantau. beamer - A LaTeX class for producing presentations and slides. URL: http://ctan.org/pkg/beamer (visited on 01/07/2014).			
[Tanb]	anb] Till Tantau. User Guide to the Beamer Class. URL: http://ctan.orgmacros/latex/contrib/beamer/doc/beameruserguide.pdf.			