The HEP-TALK package*

Slides with overlays based on the article class, with colour themes

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?

Abstract

The HEP-TALK package provides a lightweight slide system for HEP talks. It sets slide geometry from the requested paper width and aspect ratio, loads the HEP font, math-font, bibliography, title, and text modules, defines block, column, row, frame, and slide environments with overlay support, provides title-logo handling and slide page numbers, and ships dark, light, blue, and metropolis-inspired colour themes.

1 Introduction

The package can be loaded using `\usepackage{hep-talk}`.

`paperwidth` `ratio` The size of the slides is adjusted with the `paperwidth=`⟨*dimension*⟩ option. The ratio can be adjusted with the `ratio=`⟨*fraction*⟩ option, for example `ratio=9/16` or `ratio=.5625`.

2 Macros and environments

`\newframe` New frames can be generated using the `\newframe[`⟨*title*⟩`]` macro.

`slide` (*env.*) `robustslide` (*env.*) The `slide` and `robustslide` environments start a new frame and wrap its contents in the `overlays` environment of the OVERLAYS package [1]. The `robustslide` environment reads its body verbatim, like `fragileoverlays`, so that it can contain fragile material such as verbatim text. Their optional argument becomes the slide title.

`block` (*env.*) The basic building block is the `\begin{`⟨*block*⟩`}[`⟨*title*⟩`]` environment, that generates a block with attached title stretching over the whole page. It accepts a star that switches the overlay behaviour from `only` to `visible`, an optional overlay specification, an optional title, and an optional width.

`columns` (*env.*) The `\begin{`⟨*columns*⟩`}[`⟨*title*⟩`][`⟨*column*⟩`]` environment generates space for ⟨*column*⟩ columns if ⟨*column*⟩ is an integer and a single column with width ⟨*column*⟩`\linewidth` if ⟨*column*⟩ is smaller than one. It uses the same star and overlay conventions as `block`.

`\column` The `\column[`⟨*title*⟩`][`⟨*size*⟩`]` macro generates a new column. It uses the same star and overlay conventions as `block`. In a `columns` environment with an integer ⟨*column*⟩, the column is `1/`⟨*size*⟩ of the line wide and defaults to `1/`⟨*column*⟩. Otherwise ⟨*size*⟩ is the column width as a fraction of the line width and defaults to ⟨*column*⟩.

`\row` The `\row[`⟨*title*⟩`]` macro starts a new row in a `block` or `column`.

`\logo` `\prelogo` `\postlogo` The `\logo{`⟨*code*⟩`}` macro stores title-page logo material. The `\prelogo` and `\postlogo` hooks

*This document corresponds to HEP-TALK ?.

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adjust the material placed before and after it.

`\citestyle` `\cite` Citations are formatted for slides using the HEP-BIBLIOGRAPHY setup. The `\citestyle{`⟨*citation*⟩`}` macro typesets small right-aligned citations in the structure colour. The `\cite` macro applies this style to `\autocite` and takes the same optional prenote and postnote. Citations show the author and year or the e-print number, also with the default numeric style of HEP-BIBLIOGRAPHY.

3 Themes

The extracted `hep-dark`, `hep-light`, `hep-blue`, and `hep-metropolis` files define the page, title, caption, block, structure, and highlight colours used by the package. They are loaded after HEP-TALK, for example with `\usepackage{hep-dark}`. Without a theme, the colours of `hep-light` are used.

A Implementation

<*package>

B Options

Load the KVOPTIONS package [2] and define a `heptalk` namespace.

```
\RequirePackage{kvoptions}
\SetupKeyvalOptions{
  family=heptalk,
  prefix=heptalk@
}
```

`paperwidth` Define a `paperwidth=`⟨*dimension*⟩ option. Default to 16 cm.

```
\DeclareStringOption[16cm]{paperwidth}
```

`ratio` Define a `ratio=`⟨*fraction*⟩ option. It is a fraction such as `9/16` or a decimal number such as `.5625`. Default to 3/4.

```
\DeclareStringOption[3/4]{ratio}
```

B.1 Process options

```
\ProcessKeyvalOptions*
```

Load the HEP-PAPER packages [3]. The HEP-MATH package [4] is loaded before HEP-MATH-FONT, as in HEP-PAPER.

```
% \RequirePackage[sansserif, bibliography=authoryear]{hep-paper}
\RequirePackage[oldstyle, sans]{hep-font}
\RequirePackage{hep-math}
\RequirePackage{hep-math-font}
\RequirePackage{hep-bibliography}
\RequirePackage{hep-title}
% \RequirePackage{hep-float}
```

```
\RequirePackage{hep-text}
% \RequirePackage{hep-reference}
% \RequirePackage{hep-acronym}
```

Compute the paper height with L3FP, which accepts fractions as well as decimal ratios. The height is truncated to scaled points, like an integer multiplication followed by a division.

```
\setlength{\@tempdima}{\heptalk@paperwidth}
\ExplSyntaxOn
\edef\heptalk@paperheight{%
  \fp_eval:n { trunc ( \@tempdima * ( \heptalk@ratio ) / 1sp ) } sp%
}
\ExplSyntaxOff
```

Reset the paper geometry.

```
\RequirePackage{geometry}
\geometry{
  reset,
  paperwidth=\heptalk@paperwidth,
  paperheight=\heptalk@paperheight,
  margin=0pt,
  ignoreheadfoot,
  bottom=.02\paperwidth
}
```

C Lengths

Set internal lengths. Horizontal lengths.

```
\newlength{\hmargin}
\setlength{\hmargin}{.0125\paperwidth}
\setlength{\leftskip}{\hmargin}
\setlength{\parindent}{0pt}
```

Vertical lengths

```
\newlength{\vmargin}
\setlength{\vmargin}{%
  .01\paperheight plus .1\paperheight minus .005\paperheight%
}
\setlength{\parskip}{\vmargin}
```

Adjust spacing around equations.

```
\g@addto@macro\normalsize{%
  \setlength\abovedisplayskip{0pt}%
  \setlength\abovedisplayshortskip{0pt}%
  \setlength\belowdisplayskip{1ex}%
  \setlength\belowdisplayshortskip{1ex}%
}
```

D Colors

Colors managment is implemented using the xcolor package [5]. Make the overlays package [1] compatible.

```
\RequirePackage{xcolor}
```

Provide the colours of the light theme as defaults, so that a theme package loaded later overrides them.

```
\providecolor{PageBg}{gray}{1}
\providecolor{PageFg}{gray}{0}
\providecolor{TitleBg}{gray}{.8}
\providecolor{TitleFg}{gray}{.1}
\providecolor{CaptionBg}{gray}{.9}
\providecolor{CaptionFg}{gray}{.2}
\providecolor{BlockBg}{gray}{1}
\providecolor{BlockFg}{gray}{0}
\providecolor{Structure}{rgb}{1,.3,.3}
\providecolor{Highlight}{rgb}{1,0,0}
```

Set the page colours at the beginning of the document.

```
\newcommand*{\globalcolor}[1]{%
  \color{#1}\global\let\default@color\current@color%
}
\AtBeginDocument{%
  \pagecolor{PageBg}%
  \globalcolor{PageFg}%
  \colorlet{background}{PageBg}%
}
```

Externalised TikZ figures don't get the page colour.

```
\AtBeginDocument{\tikzifexternalizing{\nopagecolor}{}}
```

E Generic macros

`\calc` `\IfNoValueOrEmptyTF` Internal macros

```
\ExplSyntaxOn
  \cs_new_eq:NN \calc \fp_eval:n
  \long\def\IfNoValueOrEmptyTF#1#2#3{%
    \IfNoValueTF{#1}{#2}{\tl_if_empty:nTF{#1}{#2}{#3}}%
  }
\ExplSyntaxOff
```

F Overlays

Overlay managment is provided by the `overlays` package [1].

```
\RequirePackage{overlays}
```

`\ifinoverl@yspec` Pactch the internal `\ifinoverl@yspec` macro to adjust the global `\maxoverl@y` counter to the maximal overlay specifier found within its loop. The end of a closed range such as `1-3` counts as well. An open range such as `2-` ends at the current `\maxoverl@y` and does not increase it.

```
\def\ifinoverl@yspec#1#2{%
  \global\let\inoverl@yspec\@secondoftwo
  \foreach \i in {#2}{%
    \afterassignment\getoverl@yspecb
    \overl@yspeca=0\i\relax
    \ifnum\maxoverl@y<\overl@yspeca%
      \global\maxoverl@y=\overl@yspeca\else%
    \fi%
    \ifnum\maxoverl@y<\overl@yspecb%
      \global\maxoverl@y=\overl@yspecb\else%
    \fi%
    \pgfmathtruncatemacro\result{%
      (#1>=\overl@yspeca) && (#1<=\overl@yspecb)%
    }%
    \ifnum\result=1\relax
      \breakforeach
      \global\let\inoverl@yspec\@firstoftwo
    \fi%
  }%
  \inoverl@yspec%
}
```

Restore the footnote counter on every overlay, like the page and equation counters.

```
\savecounterbetweenoverlays{footnote}
```

`\hep@overlay@write` Only the first overlay writes to the `aux` file, so that labels are not multiply defined and contents entries are not repeated.

```
\long\def\hep@overlay@write#1{%
  \ifx#1\@auxout
    \expandafter\@gobbletwo
  \else
    \expandafter\hep@protected@write\expandafter#1%
  \fi
}
```

`overlays` Remove the mandatory argument from the `overlays` environment.

```
\RenewEnviron{overlays}{%
  \s@vecounters
  \s@veseries
  \maxoverl@y=1%
  \curoverl@y=0%
  \loop
    \advance\curoverl@y by 1%
    \begingroup
```

```
    \ifnum\curoverl@y>1
      \let\hep@protected@write\protected@write
      \let\protected@write\hep@overlay@write
    \fi
    \BODY
    \endgroup
  \ifnum\curoverl@y<\maxoverl@y%
    \clearpage
    \restores@vedcounters
    \restores@vedseries
    \repeat
}
```

redefine `only`

```
\let\hep@only\only
\RenewDocumentCommand{\only}{d<>m}{%
  \IfNoValueOrEmptyTF{#1}{#2}{\hep@only{#1}{#2}}%
}
\let\hep@visible\visible
\RenewDocumentCommand{\visible}{d<>m}{%
  \IfNoValueOrEmptyTF{#1}{#2}{\hep@visible{#1}{#2}}%
}
```

G Blocks

`\hep@block@width` The internal block width

```
\newcommand*{\hep@block@width}[1]{%
  \dimexpr#1\linewidth-2\fboxsep-2\leftskip\relax%
}
```

`\hep@block` The internal `\hep@block` macro.

- #1 mandatory star boolean switching between `visible` and `only`
- #2 overlay number
- #3 optional background color
- #4 optional forground color
- #5 optional width of the block
- #6 mandatory text

```
\NewDocumentCommand{\hep@block}{md<>O{BlockBg}O{BlockFg}O{1}m}{%
  \IfNoValueOrEmptyTF{#2}{}{\IfBooleanTF{#1}{\visible<#2>}{\only<#2>}}%
  \bgroup\textcolor{#4}{\colorbox{#3}{%
  \begin{minipage}[t]{\hep@block@width{#5}}%
    #6\strut%
  \end{minipage}%
  }}\egroup%
}
```

`hep@block@env` The internal `hep@block@env` environment.

#1 mandatory star boolean switching between `visible` and `only`
#2 overlay number
#3 optional background color
#4 optional forground color
#5 optional width of the block

```
\newsavebox{\hep@saved@box}
\NewDocumentEnvironment{hep@block@env}{%
  md<>O{BlockBg}O{BlockFg}O{1}%
}{%
  \IfNoValueOrEmptyTF{#2}{}{%
    \IfBooleanTF{#1}{\visible<#2>}{\only<#2>}%
  }%
  \bgroup\color{#4}%
  \begin{lrbox}{\hep@saved@box}%
  \begin{minipage}{\hep@block@width{#5}}%
}{%
  \end{minipage}\end{lrbox}%
  \colorbox{#3}{\usebox{\hep@saved@box}}%
  \egroup%
}
```

G.1 Public Blocks

`\hep@begin@block@env` The internal `\hep@begin@block@env` macro starts a block with an optional title. It is defined once, so that blocks can be nested.

#1 mandatory star boolean switching between `visible` and `only`
#2 overlay number
#3 optional name of the block
#4 optional width of the block

```
\NewDocumentCommand{\hep@begin@block@env}{md<>oO{1}}{%
  \IfNoValueOrEmptyTF{#3}{}{%
    \hep@block#1<#2>[CaptionBg][CaptionFg][#4]{#3}%
    \setlength{\parskip}{0pt}\par\vspace{-1pt}%
  }%
  \begin{hep@block@env}#1<#2>[BlockBg][BlockFg][#4]%
}
```

`block` The basic `block` environment.

#1 star switching the `overlay` from `only` to `visible`
#2 overlay number
#3 optional name of the block
#4 optional width of the block

```
\providecommand*{\row}{}
\NewDocumentEnvironment{block}{sd<>oO{1}}{%
  \RenewDocumentCommand{\row}{sd<>oO{1}}{%
    \hep@end@block@env%
    \hep@begin@block@env##1<##2>[##3][##4]%
```

```
  }%
  \hep@begin@block@env#1<#2>[#3][#4]%
}{\hep@end@block@env}
```

`\hep@end@block@env` The internal `\hep@end@block@env` macro.

```
\newcommand*{\hep@end@block@env}{%
  \end{hep@block@env}\setlength{\parskip}{\vmargin}\par%\par%
}
```

`\hep@mini@page` The private `\hep@mini@page` macro. It is defined once, so that columns can be nested.

#1 mandatory star argument
#2 overlay number
#3 width of the minipage
#4 mandatory name of the minipage

```
\NewDocumentCommand{\hep@mini@page}{md<>mm}{%
  \begin{minipage}[t]{%
    \dimexpr#3\linewidth+#3\hmargin-\hmargin-.01pt\relax%
  }%
  \vspace{0pt}%
  \IfBooleanTF{#1}{\begin{block}*<#2>[#4][1]}{%
    \IfNoValueOrEmptyTF{#2}{}{\gdef\needs@space{#2}}%
    \begin{block}<#2>[#4][1]%
  }%
}
```

`columns` The `columns` environment.

#1 star switching the `overaly` from `only` to `visible`
#2 overlay number
#3 optional name of the first column
#4 optional width of the first column

```
\providecommand*{\column}{}
\NewDocumentEnvironment{columns}{sd<>oO{2}}{%
  \begin{minipage}{\linewidth-2\leftskip}%
  \def\needs@space{}%
```

check if the column width is larger than 1.

```
  \ifdim#4pt>1pt%
    \def\hep@inverse{\calc{1/#4}}%
```

`\column` The public `\column` macro.

##1 star switching the `overlay` from `only` to `visible`
##2 overlay number
##3 optional name
##4 optional number $\langle n \rangle$, the column is $1/n$ of the line wide

```
    \RenewDocumentCommand{\column}{sd<>oo}{%
      \end{block}\end{minipage}%
      \ifdefempty{\needs@space}{\hspace{\hmargin}}{%
        \only<\needs@space>{\hspace{\hmargin}}%
      }%
      \gdef\needs@space{}%
      \hep@mini@page##1<##2>{%
        \IfNoValueOrEmptyTF{##4}{\hep@inverse}{\calc{1/##4}}%
      }{##3}%
    }%
```

start a new minipage. The case that column width is smaller than 1.

```
    \hep@mini@page#1<#2>{\hep@inverse}{#3}%
  \else%
```

`\column` The public `\column` macro.

##1 star switching the `overlay` from `only` to `visible`
##2 overlay number
##3 optional name
##4 optional width as a fraction of the line width

```
    \RenewDocumentCommand{\column}{sd<>oo}{%
      \end{block}\end{minipage}%
      \ifdefempty{\needs@space}{\hspace{\hmargin}}{%
        \only<\needs@space>{\hspace{\hmargin}}%
      }%
      \gdef\needs@space{}%
      \hep@mini@page##1<##2>{%
        \IfNoValueOrEmptyTF{##4}{#4}{##4}%
      }{##3}%
    }%
```

start a new minipage; end of check for argument size and end of the columns environment.

```
    \hep@mini@page#1<#2>{#4}{#3}%
  \fi%
}{\end{block}\end{minipage}\end{minipage}\par}%
```

H Frames

`\newframe` The `\newframe` macro

```
\NewDocumentCommand{\newframe}{o}{%
  \clearpage%
  \IfNoValueF{#1}{%
    \leftskip=0pt%
    \hep@block\BooleanFalse[TitleBg][TitleFg][1]{%
      \hspace{\dimexpr\hmargin\relax}\LARGE\strut\Large#1\hspace{\hmargin}%
    }%
```

```
  }\par\leftskip=\hmargin%
}
```

`slide` Define a `slide` macro that starts a new frame with overlays. The overlays save the page counter when they start and restore it for every step, so clear the page first. Then all steps of a slide share its page number and the next slide continues from there.

```
\newenvironment{slide}[1][]{%
  \clearpage%
  \overlays%
  \newframe[#1]%
}{%
  \endoverlays%
}
```

`robustslide` `\hep@robust@slide` Define a `robustslide` environment for fragile content such as verbatim material. Like the `fragileoverlays` environment of the OVERLAYS package, it writes its body verbatim to the file ⟨*jobname*⟩`.vrb` using the VERBATIM package [6] and reads it back on each overlay of a `slide`.

```
\RequirePackage{verbatim}
\newwrite\hep@slide@out
\newenvironment{robustslide}[1][]{%
  \gdef\hep@slide@title{#1}%
  \@bsphack
  \immediate\openout\hep@slide@out=\jobname.vrb\relax
  \let\do\@makeother\dospecials
  \catcode`\^^M\active
  \catcode`\^^I=12
  \def\verbatim@processline{%
    \immediate\write\hep@slide@out{\the\verbatim@line}%
  }%
  \verbatim@start
}{%
  \immediate\closeout\hep@slide@out
  \@esphack
  \aftergroup\hep@robust@slide
}
```

After the end of the environment, when the category codes are restored, typeset the slide.

```
\newcommand*{\hep@robust@slide}{%
  \begin{slide}[\hep@slide@title]%
    \input{\jobname.vrb}%
  \end{slide}%
}
```

`\logo` The `\logo` macro

```
\renewcommand*\Affilfont{\normalsize}
\newcommand*{\titlemargin}{.05\paperwidth}
\newcommand*{\prelogo}[1]{\def\hep@pre@logo{#1}}
\newcommand*{\logo}[1]{\def\hep@logo{#1}}
```

```
\newcommand*{\postlogo}[1]{\def\hep@post@logo{#1}}
\prelogo{\vfill\hfill}
\postlogo{}
```

`\maketitle` The `\maketitle` macro. Wide slides get less space above the title, so that the logos stay on the page.

```
\AtBeginDocument{%
  \ifdim\paperheight<.7\paperwidth
    \def\hep@title@skip{3ex}%
  \else
    \def\hep@title@skip{10ex}%
  \fi
}
```

The title slide

```
\renewcommand*{\maketitle}{%
  \newframe%
  \strut\par\vspace{\hep@title@skip}\bgroup%
    \leftskip=\titlemargin
    \rightskip=\titlemargin
    {\Huge\hep@title@font\thetitle\par}%
    \vspace{.5ex}%
    \@ifundefined{hep@sub@title}{}%
      {\Large\hep@subtitle@font\hep@sub@title}\par%
    \vspace{3ex}%
    {\huge\hep@author@font\@author\vspace{1ex}\par}
    \vspace{3ex}%
    \normalsize\hep@date@font\@date\par%
    \vspace{3ex}%
    \@ifundefined{hep@logo}{}{%
      \hep@pre@logo\hep@logo\hep@post@logo\par%
    }%
  \egroup%
}
```

`\section` The `\section` macro is adjusted using the `titlesec` package [7]

```
\RequirePackage{titlesec}
\newcommand*{\sectionbreak}{\clearpage}
\titleformat{\section}{\huge}{}{0pt}{%
  \strut\vfill\centering\color{PageFg}%
}[\vfill\strut\clearpage]
```

I Content

The pagenumber is implemented using the `picture` [8] and `atbegshi` [9] packages. The overlays of a slide restore the page and other counters, so that HYPERREF [10] would create the same anchor names on several pages. Use unique anchor names instead.

```
\AtBeginDocument{%
  \@ifpackageloaded{hyperref}{\hypersetup{hypertexnames=false}}{}%
}

% \RequirePackage{picture}
% \RequirePackage{atbegshi}
\RequirePackage{tikz}
\usetikzlibrary{fadings}
\usetikzlibrary{external}
\tikzfading[
  name=fade out,
  inner color=transparent!0,
  outer color=transparent!80,
]
\tikzset{
  pagenumber/.style={
    font=\footnotesize,
    anchor=south east,
    outer sep=1ex,
    circle,
    inner sep=1pt,
    text=Structure,
    fill=PageBg,
    path fading=fade out,
  },
}
\AtBeginShipout{\AtBeginShipoutUpperLeftForeground{%
  \ifnum\thepage>1%
%     \put(\paperwidth-\widthof{\footnotesize\thepage}-\hmargin,%
%         -\paperheight+\hmargin){%
%       \footnotesize\color{Structure}\thepage%
%     }%
    \tikzset{external/export next=false}%
    \begin{tikzpicture}[remember picture,overlay]
      \node[pagenumber] at (current page.south east){\thepage};%
    \end{tikzpicture}
  \fi%
}}
```

itemize description Lists

```
\setlist[itemize]{nosep, left=0pt, label=\color{Structure}\textbullet}
\setlist[description]{nosep, font=\color{Structure}\normalfont}
\setlist[enumerate]{nosep, font=\color{Structure}\arabic*}
```

\emph Empheses

```
\renewcommand*{\emph}[1]{\textcolor{Structure}{#1}}
```

Equations

```
\mathtoolsset{showonlyrefs}
```

J Bibliography

Prepare the bibliography

```
% \ExecuteBibliographyOptions{
%   maxcitenames=1,
%   maxbibnames=5,
%   dashed=false,
%   uniquename=false,
%   uniquelist=false
% }
% \DeclareNameAlias{sortname}{given-family}
```

`cite` Add the collaboration field to the citation macro.

```
% \renewbibmacro*{cite}{%
%   \DeclareFieldFormat{eprint}{##1}%
%   \iffieldundef{shorthand}{%
%     \iffieldundef{eprint}{%
%       \ifthenelse{%
%         \ifnameundef{labelname}\OR\iffieldundef{labelyear}%
%        }{%
%         \usebibmacro{cite:label}%
%         \setunit{\printdelim{nonameyeardelim}}%
%       }{%
%         \iffieldundef{collaboration}{%
%           \printnames{labelname}%
%          }{%
%           \printfield{collaboration}%
%          }\setunit{\printdelim{nameyeardelim}}%
%       }\usebibmacro{cite:labeldate+extradate}%
%     }{\printfield{eprint}}%
%   }{\usebibmacro{cite:shorthand}}%
% }
% \renewbibmacro*{cite}{%
%   \iffieldundef{shorthand}{%
%     \ifthenelse{\ifnameundef{labelname}\OR\iffieldundef{labelyear}}{%
%       \usebibmacro{cite:label}%
%       \setunit{\printdelim{nonameyeardelim}}}{%
%         \iffieldundef{collaboration}{%
%           \printnames{labelname}%
%         }{%
%           \printfield{collaboration}%
%         }%
%         \setunit{\printdelim{nameyeardelim}}%
%       }%
%      \usebibmacro{cite:labeldate+extradate}%
%   }{\usebibmacro{cite:shorthand}}%
% }
```

The citation macros below use the label macros of the author-year styles. Provide them for other

styles, such as the default `numeric-comp` style of HEP-BIBLIOGRAPHY, and provide the year of the entries.

```
\ExecuteBibliographyOptions{labeldateparts}
\providebibmacro*{cite:label}{%
  \iffieldundef{label}{%
    \printtext[bibhyperref]{\printfield[citetitle]{labeltitle}}%
  }{%
    \printtext[bibhyperref]{\printfield{label}}%
  }%
}
\providebibmacro*{cite:labeldate+extradate}{%
  \iffieldundef{labelyear}{}{%
    \printtext[bibhyperref]{\printlabeldateextra}%
  }%
}
\providebibmacro*{cite:shorthand}{%
  \printtext[bibhyperref]{\printfield{shorthand}}%
}
```

clickable parencite

```
\DeclareCiteCommand{\parencite}[\mkbibbrackets]{\usebibmacro{prenote}}{%
  \usebibmacro{citeindex}%
  \printtext[bibhyperref]{\usebibmacro{cite}}%
}{\multicitedelim}{\usebibmacro{postnote}}
```

`\citestyle` small rightaligned Structure colored citations. The `\cite` macro passes the optional pre- and `\cite` postnote to `\autocite`.

```
\newcommand*{\citestyle}[1]{%
  \hfill{\scriptsize\normalfont\color{Structure}#1}%
}
\RenewDocumentCommand{\cite}{oom}{%
  \citestyle{%
    \IfNoValueTF{#1}{\autocite{#3}}{%
      \IfNoValueTF{#2}{\autocite[#1]{#3}}{\autocite[#1][#2]{#3}}%
    }%
  }%
}
```

do not color the titles

```
\DeclareFieldFormat{title}{\enquote{#1}\isdot}
\DeclareFieldFormat{booktitle}{\textit{#1}\isdot}
\DeclareFieldFormat{journaltitle}{\textit{#1}\isdot}
```

put references in blocks

```
% \renewbibmacro{begentry}{%
%   \vspace{-.3ex}%
%   \block\relax%
```

```
%   \setlength{\leftskip}{1.25em}%
%   \setlength{\parindent}{-1.25em}%
% }
```

close the blocks

```
% \renewbibmacro{finentry}{\endblock}
```

use eprint info for references

```
\newcommand*{\hep@talk@cite}{%
  \iffieldundef{shorthand}{%
    \iffieldundef{eprint}{%
      \ifthenelse{%
        \ifnameundef{labelname}\OR\iffieldundef{labelyear}%
       }{%
        \usebibmacro{cite:label}%
        \setunit{\printdelim{nonameyeardelim}}%
      }{%
        \iffieldundef{collaboration}{%
          \printnames{labelname}%
         }{%
          \printfield{collaboration}%
         }\setunit{\printdelim{nameyeardelim}}%
      }\usebibmacro{cite:labeldate+extradate}%
    }{\texttt{\printfield{eprint}}}%
  }{\usebibmacro{cite:shorthand}}%
}
```

use eprint info for reference labeles

```
\newcommand*{\hep@talk@label}{%
  \DeclareFieldFormat{eprint:arxiv}{%
    \ifhyperref{%
      \href{https://arxiv.org/\abx@arxivpath/##1}{\nolinkurl{##1}}%
    }{%
      \nolinkurl{##1}\iffieldundef{eprintclass}{}{%
        \addspace\texttt{\mkbibbrackets{\thefield{eprintclass}}}%
      }%
    }%
  }%
  \DeclareFieldFormat{eprint:github}{%
    \hep@bib@online{https://github.com/\thefield{eprintclass}/##1}{##1}%
  }%
  \iffieldundef{shorthand}{%
    \iffieldundef{eprint}{%
      \ifthenelse{%
        \ifnameundef{labelname}\OR\iffieldundef{labelyear}%
       }{%
        \setunit{\printdelim{nonameyeardelim}}%
      }{%
        \iffieldundef{collaboration}{%
```

```
          \printnames{labelname}%
        }{%
          \printfield{collaboration}%
        }\setunit{\printdelim{nameyeardelim}}%
      }
      \usebibmacro{cite:labeldate+extradate}%
    }{\usebibmacro{eprint}}%
  }{\usebibmacro{cite:shorthand}}%
}
```

remove eprint from entry

```
\newcommand*{\hep@talk@entry}{%
  \DeclareFieldFormat{doi}{}%
  \renewbibmacro{in:}{}%
  \renewbibmacro{journal+issuetitle}{}%
  \renewbibmacro{note+pages}{}%
  \renewbibmacro{organization+location+date}{}%
  \iffieldundef{eprint}{%
    \ifthenelse{%
      \ifnameundef{labelname}\OR\iffieldundef{labelyear}%
    }{}{%
      \iffieldundef{collaboration}{%
        \DeclareNameFormat{sortname}{}%
        \DeclareNameFormat{year}{}%
        \DeclareFieldFormat{cite:labeldate+extradate}{}%
        \DeclareFieldFormat{labelyear}{}%
      }{%
        \DeclareFieldFormat{collaboration}{}%
      }%
    }%
    \DeclareFieldFormat{cite:labeldate+extradate}{}%
  }{%
    \DeclareFieldFormat{eprint:arxiv}{}%
    \DeclareFieldFormat{eprint:github}{}%
  }%
}
```

Redefine the end of the entry line in the header. The comma is printed only together with a DOI, since preprints have none.

```
\newcommand*{\hep@talk@entry@tail}{%
  \bibsentence%
  \usebibmacro{in:}%
  \usebibmacro{journal+issuetitle}%
  \newunit%
  \usebibmacro{note+pages}%
  \iftoggle{bbx:doi}{%
    \iffieldundef{doi}{}{\printunit{\addcomma\space}\printfield{doi}}%
  }{}%
  \setunit{}%
}
```

redefine cite

```
\renewbibmacro*{cite}{%
  \DeclareFieldFormat{eprint}{##1}%
  \hep@talk@cite%
}
```

put bib item in a block

```
\renewbibmacro{begentry}{%
  \block[[\hep@talk@label]\hfill\hep@talk@entry@tail]%
  \hep@talk@entry%
}
```

close block

```
\renewbibmacro{finentry}{%
  \endblock\filbreak%
}
```

start a new frame for bibliography

```
\defbibheading{bibliography}[\refname]{%
  \newframe[#1]%
}
```

use small font for bibliography

```
\defbibenvironment{bibliography}{%
  \small%
%   start environment
}{
%   end environment
}{
%   item
}
```

</package>

K Themes

K.1 Dark colors

<*dark>

```
\definecolor{PageBg}{gray}{.3}
\definecolor{PageFg}{gray}{.9}
\definecolor{TitleBg}{gray}{.5}
\definecolor{TitleFg}{gray}{1}
\definecolor{CaptionBg}{gray}{.8}
\definecolor{CaptionFg}{gray}{.2}
\definecolor{BlockBg}{gray}{1}
\definecolor{BlockFg}{gray}{0}
```

```
\definecolor{seven}{HTML}{2980b9}
\colorlet{Structure}{seven!70!white}
\colorlet{Highlight}{red}
```

</dark>

K.2 Light colors

<*light>

```
\definecolor{PageBg}{gray}{1}
\definecolor{PageFg}{gray}{0}
\definecolor{TitleBg}{gray}{.8}
\definecolor{TitleFg}{gray}{.1}
\definecolor{CaptionBg}{gray}{.9}
\definecolor{CaptionFg}{gray}{.2}
\definecolor{BlockBg}{gray}{1}
\definecolor{BlockFg}{gray}{0}
\definecolor{seven}{HTML}{ff0000}
\colorlet{Structure}{seven!70!white}
\colorlet{Highlight}{red}
```

</light>

K.3 Blue

<*blue>

```
\definecolor{PageBg}{gray}{1}
\definecolor{PageFg}{gray}{0}
\definecolor{TitleBg}{gray}{1}
\definecolor{TitleFg}{HTML}{3333b2}
\definecolor{CaptionBg}{HTML}{262686}
\definecolor{CaptionFg}{gray}{1}
\definecolor{BlockBg}{HTML}{E9E9F3}
\definecolor{BlockFg}{gray}{0}
\definecolor{Structure}{HTML}{3333b2}
\colorlet{Highlight}{red}
```

</blue>

K.4 Metropolis

<*metropolis>

```
\definecolor{mDarkTeal}{HTML}{23373b}
\definecolor{mLightBrown}{HTML}{EB811B}

\colorlet{PageBg}{black!2}
\colorlet{PageFg}{mDarkTeal}
\colorlet{TitleBg}{mDarkTeal}
\colorlet{TitleFg}{black!2}
```

```
\colorlet{CaptionFg}{mDarkTeal}
\colorlet{CaptionBg}{PageBg!80!CaptionFg}
\colorlet{BlockBg}{CaptionBg!50!PageBg}
\colorlet{BlockFg}{mDarkTeal}
\colorlet{Structure}{mLightBrown}
\colorlet{Highlight}{mLightBrown}
```

</metropolis>

L Readme

<*readme>

```
# The ‘hep-talk‘ package

Slides with overlays based on the article class, with colour themes

## Introduction

The ‘hep-talk‘ package provides a lightweight slide system for HEP talks.
It sets slide geometry from the requested paper width and aspect ratio,
loads the HEP font, math-font, bibliography, title, and text modules, and
defines block, column, row, frame, and slide environments with overlay
support. It also provides title-logo handling, slide page numbers,
slide-oriented citation and bibliography formatting, and dark, light,
blue, and metropolis-inspired colour themes.

It can be loaded with ‘\usepackage{hep-talk}‘.

## Author

Jan Hajer

## License

This file may be distributed and/or modified under the conditions of the
‘LaTeX‘ Project Public License, either version 1.3c of this license or
(at your option) any later version. The latest version of this license is
in ‘http://www.latex-project.org/lppl.txt‘ and version 1.3c or later is
part of all distributions of LaTeX version 2005/12/01 or later.
```

</readme>

References

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[7] J. Bezos. 'The titlesec, titleps and titletoc packages: Select alternative section titles' (1998). CTAN: titlesec. GitHub: jbezos/titlesec.
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[9] H. Oberdiek. 'The atbegshi package: Execute stuff at shipout time' (2007). CTAN: atbegshi. GitHub: ho-tex/atbegshi.
[10] *LaTeX3 Project*. 'Hypertext marks in LaTeX: a manual for hyperref: Extensive support for hypertext in LaTeX' (1995). CTAN: hyperref. GitHub: latex3/hyperref.

Change History

v1.0
General: Added to the hep-paper repository with release v2.1: slides based on the article class with paper-width and aspect-ratio options, overlays, blocks, columns, rows, frames, title slides, colour themes, page numbers, and citation blocks. 1
v1.3
General: Added logos, TikZ page numbers, e-print-aware citations, and bibliography frame headings. 1
v1.4
General: Applied starred command definitions consistently and kept the tail data of bibliography entries in talk references. 1
v1.5
General: Raised the LaTeX format requirement and expanded the documentation and README. 1
v1.6
General: First release on CTAN. Provided light default colours, implemented robustslide with verbatim overlays, fixed the hep-light package information, loaded HEP-MATH before HEP-MATH-FONT, made hyperref anchors unique on overlay pages, kept the page number of a slide for all its overlays, printed the comma before the DOI only together with a DOI, removed the page colour from externalised figures, and reduced the space above the title on wide slides. 1