The **HEP-PAPER** package*

Publications in high energy physics

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Abstract

The **HEP-PAPER** package aims to provide a single style file containing most configurations and macros necessary to write appealing publications in High Energy Physics. Instead of reinventing the wheel by introducing newly created macros **HEP-PAPER** preferably loads third party packages.

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1 Introduction

For usual publications it is enough to load additionally to the article class without optional arguments only the hep-paper package \[1\].

\documentclass{article}
\usepackage{hep-paper}

The most notable changes after loading the hep-paper package is the change of some \LaTeX{} defaults. The paper and font sizes are set to A4 and 11 pt, respectively. Additionally, the paper geometry is adjusted using the geometry package \[2\]. Furthermore, the font is changed to latin modern (LM) using the hep-font package \[3\]. Finally, portable document format (PDF) hyperlinks are implemented with the hyperref package \[4\].

1.1 Options

\textbf{paper} The \texttt{paper=(format)} option loads the specified paper format. The possible \texttt{(formats)} are: \texttt{a0}, \texttt{a1}, \texttt{a2}, \texttt{a3}, \texttt{a4}, \texttt{a5}, \texttt{a6}, \texttt{b0}, \texttt{b1}, \texttt{b2}, \texttt{b3}, \texttt{b4}, \texttt{b5}, \texttt{b6}, \texttt{c0}, \texttt{c1}, \texttt{c2}, \texttt{c3}, \texttt{c4}, \texttt{c5}, \texttt{c6}, \texttt{ansia}, \texttt{ansib}, \texttt{ansic}, \texttt{ansid}, \texttt{ansie}, \texttt{letter}, \texttt{executive}, \texttt{legal}. The default is \texttt{a4}.

\textbf{font} The \texttt{font=(size)} option loads the specified font size. The possible \texttt{(sizes)} are: \texttt{8pt}, \texttt{9pt}, \texttt{10pt}, \texttt{11pt}, \texttt{12pt}, \texttt{14pt}, \texttt{17pt}, \texttt{20pt}. The default is \texttt{11pt}.

\textbf{lang} The \texttt{lang=(name)} option switches the document language. The default is \texttt{british}.

\textbf{sansserif} The \texttt{sansserif} option switches the document including math to sans serif font shape.

\textbf{oldstyle} The \texttt{oldstyle} option activates the use of oldstyle text- (123) in favour of lining- (123) figures in text mode.

\textbf{parskip} The \texttt{parskip} option changes how paragraphs are separated from each other using the \texttt{parskip} package \[5\]. The \LaTeX{} default is separation via indentation the \texttt{parskip} option switches to separation via vertical space.\footnote{Although the \texttt{parskip} option is used for this document, it is recommended only for very few document types such as technical manuals or answers to referees.}

\textbf{symbols} The \texttt{symbols=(family)} is passed to the hep-math-font package \[6\] and sets the family of the symbol fonts. \texttt{symbols=false} deactivates loading any additional symbol fonts.

1.1.1 Deactivation

The hep-paper package loads few bigger packages which have a large impact on the document. The deactivation options can prevent such and other adjustments.

\textbf{defaults} The \texttt{defaults} option prevents the adjustment of the page geometry and the font size set by the document class.

\textbf{title} The \texttt{title=false} option deactivates the title page adjustments.

\textbf{bibliography} The \texttt{bibliography=(key)} option prevents the automatic loading of the hep-bibliography package \[7\] if \texttt{(key)=false}.

\textbf{glossaries} The \texttt{glossaries=false} option deactivates acronyms and the use of the hep-acronym package \[8\].

\textbf{references} The \texttt{references=false} option prevents the cleveref package \[9\] from being loaded and deactivates further redefinitions of reference macros.
1.1.2 Compatibility
The compatibility options activate the compatibility mode for certain classes and packages used for publications in high energy physics. They are mostly suitable combinations of options described in the previous section. If hep-paper is able to detect the presence of such a class or package, i.e. if it is loaded before the hep-paper package, the compatibility mode is activated automatically.

beamer The beamer option activates the beamer [10] compatibility mode.
jcap The jcap option activates the JCAP [12] compatibility mode.
revtex The revtex option activates the REVTEX [13] compatibility mode.
pos The pos option activates the PoS compatibility mode.
springer The springer option activates the compatibility mode the svjour class [14].

1.1.3 Reactivation
The hep-paper package deactivates unrecommended macros, which can be reactivated manually.

manualplacement The manualplacement option reactivates manual float placement.
eqnarray The eqnarray option reactivates the depreciated eqnarray environment.

2 Macros and environments

twocolumn If the global twocolumn option is present the page geometry is changed to cover almost the entire page. Additionally the abstract* environment is defined that generates a one column abstract and takes care of placing the title information.

2.1 Title page
\series The \series{⟨series⟩} macro is defined using the hep-title package [15].
\title The PDF meta information is set according to the \title{⟨text⟩} and \author{⟨text⟩} information.
\subtitle The \subtitle{⟨subtitle⟩} macro is defined.
\editor The following lines add e.g. two authors with different affiliations
\author \author[1]{Author one \email{email one}}
\affiliation \affiliation[1]{Affiliation one}
\author[2]{Author two \email{email two}}
\affiliation \affiliation[1,2]{Affiliation two}
\preprint The \preprint{⟨numer⟩} macro places a pre-print number in the upper right corner of the title page.

abstract (env.) The abstract environment is adjusted to not start with an indentation.
\titlefont Various title font macros are defined, allowing to change the appearance of the \maketitle output.
\subtitlefont
\authorfont
\affiliationfont
\preprintfont

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2.2 Text

The \linelist and \enumdesc environments are defined.

A bold version of SMALL CAPS and a sans serif version of SMALL CAPS is provided.

The \underline macro is redefined to allow line-breaks. The \overline macro is extended to also overwrite text outside of math environments.

If the \parskip option is activated, the \useparindent macro switches to the usual parindent mode, while the \useparskip macro switches to the parskip mode.

2.2.1 References and footnotes

\Cref The \cref reference environments are extended with the \cleveref package [9], which allows to e.g. just type \cref{key} in order to write 'figure 1'. Furthermore, the \cleveref package allows to reference multiple objects within one \cref{key,keys}.

\cite Citations are adjusted to not start on a new line in order to avoid the repeated use of -\cite{key}.

\ref References are also adjusted to not start on a new line.

\footnote Footnotes are adjusted to swallow white space before the footnote mark and at the beginning of the footnote text.

2.2.2 Acronyms

\acronym The hep-acronym package [8] is loaded. The \acronym{\*}{\{settype abbreviation\}}{\{abbreviation\}}{\*}{\{definition\}} macro generates the singular \{abbreviation\} and plural \{abbreviation\} macros. The first star prevents the addition of an 's' to the abbreviation plural. The second star restores the \TeX{} default of swallowing subsequent white space. The long form is only shown at the first appearance of these macros, later appearances generate the abbreviation with a hyperlink to the longer form.

The long form is never used in math mode. Capitalization at the beginning of paragraphs and sentences is (mostly) ensured. The \shortacronym and \longacronym macros are drop-in replacements of the \acronym macro showing only the short or long form of their acronym.

2.3 Math

\mathbf The hep-math [16] and hep-math-font [6] packages are loaded. Bold math, via \textbf is improved, i.e. (AbI\delta AbI\delta). Macros switching to \textbfseries such as \section{text} are ensured to also typeset math in bold. The \text{\{text\}} macro makes it possible to write text within math mode, i.e. (AbI\delta AbI\delta). The math sans serif alphabet is redefined to be italic sans serif if the main text is serif and italic serif if the main text is sans serif, i.e. (AbI\delta AbI\delta). The \mathcal font i.e. (ABCD) is accompanied by the \mathscr font i.e. (\cal ABCD). The \mathbb font is adjusted depending on the \sansserif option i.e. (AbI). Finally, the \texttt{mathfrak} font is also available i.e. (AbI\mathfrak).

\text The \frac{\{number\}}{\{number\}} macro is accompanied by \nicefrac{\{number\}}{\{number\}}, \textfrac{\{number\}}{\{number\}}, and \flatfrac{\{number\}}{\{number\}} leading to \frac{1}{2}, \frac{1}{2}, \frac{1}{2}, and 1/2. Diagonal matrix \diag and signum \sgn operators are defined.

\text The \mathdef{\{name\}}{\{arguments\}}{\{code\}} macro (re-)defines macros only within math mode without changing the text mode definition.

\i The imaginary unit i and the differential d are defined using this functionality.
For longer paper it can be useful to re-number the equation in accordance with the section numbering \numberwithin{equation}{section}. In order to further reduce the size the of equation counter it can be useful to wrap align environments with multiple rows in a subequations environment.

The correct spacing for units, cf. equation (1), is provided by the macro \unit{⟨value⟩} \{⟨unit⟩\} which can also be used in text mode. The macro \inv{⟨power⟩}\{⟨text⟩\} allows to avoid math mode also for inverse units such as 5 fb$^{-1}$ typeset via \unit{5}\{\inv{fb}\}.

Greek letters are adjusted to always be italic and upright in math and text mode, respectively, using the hep-math-font [6] package. This allows differentiations like

$$\sigma = 5 \text{ fb}, \quad \text{at } 5 \sigma \text{ C.L.}, \quad \mu = 5 \text{ cm}, \quad l = 5 \mu\text{m}.$$  

Additionally, Greek letters can also be directly typed using Unicode.

The hep-math package [16] provides additional macros such as

$$\pdv{⟨\phi⟩}, \quad \pdv[3]{f}{x\,dy}, \quad [A, B], \quad O(x^2), \quad x|_0^\infty, \quad \det(M).$$  

The \cancel{⟨characters⟩} macro and the \slashed{⟨character⟩} macro allow to cancel math and use the Dirac slash notation i.e. $\bar{\phi}$, respectively.

A better looking over left right arrow is defined i.e. $\overleftarrow{\partial}$.

### 2.4 Floats

The hep-float package [17] provides sub-floats and takes as mandatory argument either the number of sub-floats (default 2) or the width of the first sub-float as fraction of the \linewidth. Within the \begin{panels}\{⟨vertical alignment⟩\}\{⟨width⟩\} environment the \panel macro initiates a new sub-float. In the case that the width of the first sub-float has been given as an optional argument to the panels environment the \panel{⟨width⟩} macro takes the width of the next sub-float as mandatory argument.

The \graphic{⟨width⟩}\{⟨figure⟩\} macro is defined, which is a wrapper for the includegraphics{⟨figure⟩} macro and takes the figure width as fraction of the \linewidth as optional argument (default 1). If the graphics are located in a sub-folder its path can be indicated by \graphics{⟨subfolder⟩}.

### 2.5 Bibliography

The \biblatex package [18] is loaded for bibliography management. The user has to add the line \bibliography{⟨my.bib⟩} to the preamble of the document and \printbibliography at the end of the document. The bibliography is generated by Biber [19]. \biblatex is extended by the hep-bibliography package [7] to be able to cope with the collaboration and reportNumber fields provided by inspirehep.net and a bug in the volume number is fixed. Additionally, the PubMed IDs are recognized and ctan.org, github.com, gitlab.com, bitbucket.org, launchpad.net, sourceforge.net, and hepforge.org are valid eprinttypes. Errata can be included using the erratum related feature.

\article{key1,
3 Conclusion

The hep-paper package provides a matching selection of preloaded packages and additional macros enabling the user to focus on the content instead of the layout by reducing the amount of manual tasks. The majority of the loaded packages are fairly lightweight, the others can be deactivated with package options.

\texttt{arxiv-collector} \url{arxiv.org} \cite{20} requires the setup dependent \texttt{bbl} files instead of the original \texttt{bib} files, which causes trouble if the local \LaTeX{} version differs from the one used by arXiv. The \texttt{arxiv-collector} python script \cite{21} alleviates this problem by collecting all files necessary for publication on arXiv (including figures).
A Options

\[\text{\textcopyright 2022}\] and define a hep namespace.

\begin{verbatim}
\RequirePackage{kvoptions}
\SetupKeyvalOptions{
  family=hep,
  prefix=hep@}
\end{verbatim}

\textbf{paper} Define a \texttt{paper=\textlangle size\textrangle} option. Make A4 paper the default.

\begin{verbatim}
\DeclareStringOption[a4]{paper}
\end{verbatim}

\textbf{font} Define a \texttt{figures=\textlangle size\textrangle} option. Make 11 pt the default font size.

\begin{verbatim}
\DeclareStringOption[11pt]{font}
\end{verbatim}

\textbf{lang} Define the \texttt{lang} option, which takes the values provided by the \texttt{babel} package \[23\]. Make \texttt{british} the default language.

\begin{verbatim}
\DeclareStringOption[british]{lang}
\end{verbatim}

\textbf{sansserif} Define the option pair \texttt{serif} and \texttt{sansserif} controlling the font shape of the whole document.

\begin{verbatim}
\DeclareBoolOption[true]{serif}
\DeclareComplementaryOption{sansserif}{serif}
\end{verbatim}

\textbf{lining} Define the \texttt{lining} option deactivating the use of text figures in text mode.

\begin{verbatim}
\DeclareBoolOption[true]{lining}
\end{verbatim}

\textbf{parskip} Define the option pair \texttt{parindent} and \texttt{parskip} controlling the separation of paragraphs.

\begin{verbatim}
\DeclareBoolOption[true]{parindent}
\end{verbatim}

\textbf{symbols} Provide the \texttt{symbols} option allowing to switch the symbol font.

\begin{verbatim}
\DeclareStringOption[true]{symbols}
\end{verbatim}

\subsection{Deactivation}

\textbf{defaults} Define the \texttt{defaults} option which deactivates the \texttt{paper} and \texttt{font} options and prevents the change of the class defaults by this package.

\begin{verbatim}
\DeclareBoolOption[false]{defaults}
\end{verbatim}

\textbf{title} Provide the \texttt{title} option deactivating redefinitions of title macros.

\begin{verbatim}
\DeclareBoolOption[true]{title}
\end{verbatim}
physics  Provide the physics option for deactivating redefinition of physics macros.

\DeclareBoolOption[true]{physics}

bibliography  Provide the bibliography option for passing a style string to the biblatex package [18] or disabling the automatic loading of biblatex.

\DeclareStringOption[numeric-comp]{bibliography}

glossaries  Provide the glossaries option able to turn off the use of the hep-acronym package [8].

\DeclareBoolOption[true]{glossaries}

references  Provide the references option for preventing the cleveref package from being loaded redefinitions of reference macros.

\DeclareBoolOption[true]{references}

A.2  Compatibility

beamer  Provide the beamer option for beamer [10] compatibility mode.

\DeclareBoolOption[false]{beamer}

revtex  Provide the revtex option for REVTEX [13] compatibility mode.

\DeclareBoolOption[false]{revtex}


\DeclareBoolOption[false]{jhep}

jcap  Provide the jcap option for JCAP [12] compatibility mode.

\DeclareBoolOption[false]{jcap}

pos  Provide the pos option for PoS compatibility mode.

\DeclareBoolOption[false]{pos}

springer  Provide the springer option for Springer compatibility mode.

\DeclareBoolOption[false]{springer}

amsart  Provide the amsart option for AMS article compatibility mode.

\DeclareBoolOption[false]{amsart}
A.3 Reactivation

\texttt{eqnarray} Provide the \texttt{eqnarray} option for reactivating the \texttt{eqnarray} environment.

29 \texttt{\DeclareBoolOption[true]{eqnarray}}

\texttt{manualplacement} Provide the \texttt{manualplacement} option for reactivating the manual placement of floats.

30 \texttt{\DeclareBoolOption[false]{manualplacement}}

A.4 Process options

31 \texttt{\ProcessKeyvalOptions*}

Read the class options regarding font and paper size.

32 \texttt{\def\hep@get@class#1.cls#2\relax{\def\hep@class{#1}}} \\
33 \texttt{\def\hep@getclass{\expandafter\hep@get@class\@filelist\relax}} \\
34 \texttt{\hep@getclass} \\
35 \texttt{\@ifclasswith{\hep@class}{10pt}{\setkeys{hep}{font=10pt}}}{} \\
36 \texttt{\@ifclasswith{\hep@class}{12pt}{\setkeys{hep}{font=12pt}}}{} \\
37 \texttt{\@ifclasswith{\hep@class}{a5paper}{\setkeys{hep}{paper=a5}}}{} \\
38 \texttt{\@ifclasswith{\hep@class}{b5paper}{\setkeys{hep}{paper=b5}}}{} \\
39 \texttt{\@ifclasswith{\hep@class}{letterpaper}{\setkeys{hep}{paper=letter}}}{} \\
40 \texttt{\@ifclasswith{\hep@class}{legalpaper}{\setkeys{hep}{paper=legal}}}{} \\
41 \texttt{\@ifclasswith{\hep@class}{executivepaper}{\setkeys{hep}{paper=executive}}}{} \\
42 \texttt{\setkeys{hep}{paper=executive}}{}

A.5 Set compatibility

Set the \texttt{amsart} compatibility options using the \texttt{xpatch} package [24].

44 \texttt{\@ifclassloaded{amsart}{\setkeys{hep}{amsart}}}{} \\
45 \texttt{\ifhep@amsart} \\
46 \texttt{\setkeys{hep}{defaults, title=false}} \\
47 \texttt{\RequirePackage{xpatch}} \\
48 \texttt{\xpretocmd{\@adminfootnotes}{\let\@makefntext\BHFN@OldMakefntext}{}{}{}} \\
49 \texttt{\fi}

Set the \texttt{springer} compatibility options.

50 \texttt{\@ifclassloaded{svjour}{\setkeys{hep}{springer}}}{}

51 \texttt{\@ifclassloaded{svjour2}{\setkeys{hep}{springer}}}{}

52 \texttt{\@ifclassloaded{svjour3}{\setkeys{hep}{springer}}}{}

53 \texttt{\ifhep@springer} \\
54 \texttt{\setkeys{hep}{defaults, title=false}} \\
55 \texttt{\let\cl@chapter\undefined} \\
56 \texttt{\fi}

Set the \texttt{pos} compatibility options.

57 \texttt{\@ifclassloaded{PoS}{\setkeys{hep}{pos}}}{}

58 \texttt{\ifhep@pos}
\setkeys{hep}{defaults, title=false}
\DeclareRobustCommand\boldmath{\@nomath\boldmath\mathversion{bold}}
\fi

Set the \texttt{beamer} compatibility options.
\@ifclassloaded{beamer}{\setkeys{hep}{beamer}}{}
\ifhep@beamer
\setkeys{hep}{defaults, title=false, references=false, sansserif}
\@ifpackageloaded{beamerbasefont}{\usefonttheme{professionalfonts}}{}
\setbeamertemplate{navigation symbols}{}
\fi

Set the \texttt{revtex} compatibility options.
\@ifclassloaded{revtex4}{\setkeys{hep}{revtex}}{}
\@ifclassloaded{revtex4-1}{\setkeys{hep}{revtex}}{}
\@ifclassloaded{revtex4-2}{\setkeys{hep}{revtex}}{}
\ifhep@revtex
\setkeys{hep}{defaults, title=false, bibliography=false, lang=american}
\fi

Define the SISSA conditional.
\@ifpackageloaded{jheppub}{\setkeys{hep}{jhep}}{}
\@ifpackageloaded{jcappub}{\setkeys{hep}{jcap}}{}
\newif\ifhep@sissa
\ifhep@jhep\hep@sissatru\else
\ifhep@jcap\hep@sissatru\else\hep@sissafalse\fi
\fi
\ifhep@sissa
\setkeys{hep}{defaults, title=false, bibliography=false}
\PassOptionsToPackage{
  colorlinks=true, linktocpage=true, pdfproducer=medialab, pdfa=true,
  urlcolor=blue, anchorcolor=blue, citecolor=blue, filecolor=blue,
  linkcolor=blue, menucolor=blue, pagecolor=blue
}{hyperref}
\AtBeginDocument{\renewcommand{\foreignabbrfont}{}}
\fi
\@ifpackageloaded{jheppub}{\setkeys{hep}{jhep}}{}
\ifhep@jhep
\PassOptionsToPackage{\hep@paper paper}{geometry}
\RequirePackage{geometry}
\geometry{
  offset=0in,textheight=.762\paperheight,textwidth=.72\paperwidth
}
\fi
B  Font

Load the \texttt{hep-font} package \cite{3}.

\begin{Verbatim}
\PassOptionsToPackage{
  size=\hep@font,
  sans=\ifhep@serif false\else true\fi,
  lining=\ifhep@lining true\else false\fi
}{\hepfont}
\RequirePackage{hep-font}
\end{Verbatim}

B.1  Math fonts

Load the \texttt{hep-math-font} package \cite{6}.

\begin{Verbatim}
\PassOptionsToPackage{
  symbols=\hep@symbols}{hep-math-font}
\RequirePackage{hep-math-font}
\end{Verbatim}

C  Geometry

Load the \texttt{geometry} package \cite{2} and adjust the text width and height. This step must happen after readjusting the font size in appendix B.

\begin{Verbatim}
\ifhep@defaults\else
  \RequirePackage{geometry}
  \geometry{\hep@paper paper, includeheadfoot}
  \if@twocolumn
    \geometry{hscale=.85, vscale=.925, vmarginratio=1:1}
\else
  \geometry{hscale=.75, vscale=.8, vmarginratio=3:4}
\fi
\fi
\end{Verbatim}

\useparskip  Load the \texttt{parskip} package \cite{5} if requested and provide two commands switching between the two \texttt{parindent} paragraph modes.

\begin{Verbatim}
\ifhep@parindent\else
  \RequirePackage{parskip}
  \newcommand{\useparskip}{%
    \settlength{\parskip}{0.5\baselineskip plus 2pt}%
    \settlength{\parindent}{0pt}%
  }
  \newcommand{\useparindent}{%
    \settlength{\parskip}{0pt}%
    \settlength{\parindent}{15pt}%
    \if@twocolumn\settlength{\parindent}{1em}
  \else\settlength{\parindent}{1.5em}
  \fi
  }
\fi
\end{Verbatim}
D Text

Load the *hep-text* package [25].

\PassOptionsToPackage{lang=\hep@lang}{hep-text}
\RequirePackage{hep-text}

E Math

Load the *hep-math* package [16].

\ifhep@physics\RequirePackage{hep-math}\fi

F Floats

Adjust the \LaTeX float placement defaults using the *hep-float* package [17].

\PassOptionsToPackage{
  manualplacement=\ifhep@manualplacement true\else false \fi
}{hep-float}
\RequirePackage{hep-float}
\ifhep@journal
Define a new journal conditional.
\newif\ifhep@journal
\ifhep@sissa\hep@journaltrue
\else\ifhep@revtex\hep@journaltrue
\else\ifhep@pos\hep@journaltrue
\else\ifhep@springer\hep@journaltrue
\else\hep@journalfalse
\fi
\fi
\fi
\fi
\ifhep@journal
Prevent the *caption* package [26] from complaining about the journal classes and packages.

\ifhep@journal
\setlength\abovedisplayskip{\f@size\p@}
\setlength\belowdisplayskip{0\p@}
\longdef\maketitle{
#1\#2{\%
\vskip\abovedisplayskip
\sbox@tempboxa{#1: #2}\%
\sbox@tempboxa{#1: #2}\%
\ifdim \wd@tempboxa >\hsize
\global \ifhbox{\hfil\box@tempboxa\hfil}\%
\fi
\vskip\belowdisplayskip
\}%
}
Readjust the document captions to look like the original revtex captions using the \texttt{ragged2e} package [27].

\ifhep@revtex
\RequirePackage{ragged2e}
\DeclareCaptionFormat{revtex}{#1#2\justifying{#3}}
\captionsetup[font=small, format=revtex]
\captionsetup[sub]{font=footnotesize, format=plain}
\renewcommand{\figurename}{Figure}
\renewcommand{\tablename}{Table}
\fi

\section{Title page}

Adjust the title page using the \texttt{hep-title} package [15].

\ifhep@title\RequirePackage{hep-title}\fi

\section{Bibliography}

Check if bibliography management is requested using the \texttt{pdftexcmds} package [28]. And load the \texttt{hep-bibliography} package [7].

\RequirePackage{pdftexcmds}
\ifnum\pdf@strcmp{\hep@bibliography}{false}=0\else
\PassOptionsToPackage{style=\hep@bibliography}{hep-bibliography}
\RequirePackage{hep-bibliography}
\fi

\section{Hyperlinks, Footnotes and References}

Load the \texttt{hep-reference} package [29].

\ifhep@references\RequirePackage{hep-reference}\fi

Set the PDF meta data according to the paper information and ensure that unnecessary information is suppressed.

\ifhep@revtex
\AtBeginShipout\{\hypersetup{pdftitle=\texttt{\@title}}\}
\else
\ifhep@beamer\else
\AtBeginDocument\{\hypersetup{pdftitle=\texttt{\@title}}\}
\fi
\fi
\ifhep@title
\AtBeginDocument\{\hypersetup{pdfauthor=\texttt{\@AB@authlist}}\}
\else
\fi
J Acronyms

Define acronyms if not deactivated. Acronyms are implemented in the \texttt{hep-acronym} package [8] and must be loaded after the \texttt{hyperref} package in appendix I. Set the abbreviation style.

\ifhep@glossaries\RequirePackage{hep-acronym}\fi

K Tests

K.1 JHEP

\documentclass[a4paper, 11pt]{article}
\usepackage{jheppub}
\usepackage[lang=english]{hep-paper}
\usepackage[math]{blindtext}
\begin{document}
\title{Title}
\emailAdd{first@email.com}
\author[a]{First author}
\emailAdd{second@email.com}
\author[b]{Second author}
\affiliation[a]{First affiliation}
\affiliation[b]{Second affiliation}
\abstract{\blindtext}
\maketitle
\Blankdocument
\end{document}
\documentclass[a4paper, 11pt]{article}
\usepackage{jcappub}
\usepackage[lang=english]{hep-paper}
\usepackage[math]{blindtext}
\begin{document}
title{Title}
\emailAdd{first@email.com}
\author[a]{First author}
\emailAdd{second@email.com}
\author[b]{Second author}
\affiliation[a]{First affiliation}
\affiliation[b]{Second affiliation}
\abstract{\blindtext}
\maketitle
\Blinddocument
\end{document}
\documentclass{amsart}
\usepackage[lang=english]{hep-paper}
\usepackage[math]{blindtext}
\title{title}
\author{Author}
\address{Address 1}
\email{first@email.com}
\author{Author 2}
\email{second@email.com}
\address{Address 2}
\date{date}
\begin{document}
\end{document}
\begin{abstract}
\blindtext
\end{abstract}

\begin{document}
\title{Title}
\author{First author}
\email[E-mail me at: ]{first@email.com}
\affiliation{First affiliation}
\author{Second author}
\email{second@email.com}
\affiliation{Second affiliation}
\affiliation{Third affiliation}
\end{document}
\begin{abstract}
\blindtext
\end{abstract}

\maketitle

\Blinddocument

\end{document}

K.7 Springer

\documentclass[twocolumn,epjc3]{svjour3}
\usepackage[lang=english]{hep-paper}
\usepackage[math]{blindtext}
\journalname{Journal name}
\title{Title\thanksref{title}}
\titlerunning{Short title}
\subtitle{Subtitle}
\thankstext{title}{Title thanks}
\authorrunning{Short form of author list}
\thankstext{email1}{e-mail: first@email.com}
\thankstext{email2}{e-mail: second@email.com}
\institute{
  First address \label{address1} \and
  Second address \label{address2} \and
  \textit{Present Address:} if needed\label{address3}
}
\date{Received: date / Accepted: date}
\begin{document}
\author{
  First Author\thanksref{email1,address1} \and
  Second Author\thanksref{email2,address2} \and
  \textit{Present Address:} if needed\label{address3}
}
\end{document}
\maketitle
\begin{abstract}
\blindtext
\end{abstract}
\end{document}

L Readme

# The 'hep-paper' package
A 'LaTeX' package for publications in High Energy Physics.

## Introduction
The 'hep-paper' package aims to provide a single style file containing most configurations and macros necessary to write appealing publications in High Energy Physics. Instead of reinventing the wheel by introducing newly created macros 'hep-paper' preferably loads third party packages as long as they are lightweight enough.

For usual publications it is enough to load additionally to the 'article' class without optional arguments only the 'hep-paper' package.

\documentclass{article}
\usepackage{hep-paper}

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References


[28] H. Oberdiek. ‘The \pdftexcmds package: Lua\TeX{} support for pd\TeX{} utility functions’ (2007). CTAN: \pdftexcmds.