

# The HEP-REFERENCE package\*

## Adjustments of standard references, footnote, and citations

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### Abstract

The HEP-REFERENCE package applies some light convenience modifications to the reference, citation and footnote macros after loading standard classes improving on the default L<sup>A</sup>T<sub>E</sub>X behaviour.

## 1 Introduction

The HYPERREF package is loaded and the links are hidden.

`\cref` References are extended with the CLEVEREF package [1], 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{<key1,key2>}`.

`\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.

`\eqref` Footnotes are adjusted to swallow white space before the footnote mark and at the beginning of the footnote text. Additionally the reference back to the text where they are called from.

`\subref`

`\footnote` <\*package>

## A Implementation

Load the HYPERREF package [2] enable Unicode encoding and hide links.

```
1 \RequirePackage{hyperref}
2 \hypersetup{
3   pdfencoding=auto, psdextra,
4   linktoc=all, hidelinks, breaklinks=true,
5   pdfcreator={}, pdfproducer={}
```

```
6 }
```

```
7 \AtBeginDocument{\@ifpackageloaded{doc}{\hypersetup{hidelinks}}{}}
```

Ensure that unnecessary information is suppressed.

```
8 \pdfstringdefDisableCommands{\def\varepsilon{\textepsilon}}
9 \pdfstringdefDisableCommands{\def\to{\textrightarrow}}
10 \AtBeginDocument{
```

---

\*This document corresponds to HEP-REFERENCE v1.2.

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```

11 \pdfstringdefDisableCommands{\let\ensuremath@gobble}
12 \pdfstringdefDisableCommands{\let\mathsurround@gobble}
13 \pdfstringdefDisableCommands{\let\unskip@gobble}
14 \pdfstringdefDisableCommands{\let\thanks@gobble}
15 \pdfstringdefDisableCommands{\let\footnote@gobble}
16 \pdfstringdefDisableCommands{\let\\\@gobble}
17 }

```

Set the PDF meta data according to the paper information

```

18 \AtBeginDocument{
19   \ifundefined{hep@sub@title}{
20     \hypersetup{pdftitle={\@title}}
21   }{
22     \hypersetup{pdftitle={\@title: \hep@sub@title}}
23   }
24   \hypersetup{pdfauthor={\@author}}
25   \ifundefined{hep@key@words}{\}%
26     \hypersetup{pdfkeywords={\hep@key@words}}%
27   }
28 }

```

## A.1 Footnotes

Place a hyperlink from the footnote back to its referencing label using the FOOTNOTEBACKREF package [3].

```

29 \def\BackrefFootnoteTag{}
30 \RequirePackage{footnotebackref}

```

`\footnote` Ensure that no spaces appear before the footmark or at the beginning of the footnote.

```

31 \let\@foot@note\footnote
32 \renewcommand{\footnote}[1]{\unskip\@foot@note{\ignorespaces#1}}

```

## A.2 References

`\ref` Adjust `\ref{<key>}` in order to prevent preceding line breaks.

```

33 \AtBeginDocument{
34   \let\hep@ref\ref
35   \renewcommand\ref{\no@break@before\hep@ref}
36 }

```

`\eqref` Adjust `\eqref{<key>}` from the AMSMATH package in order to prevent preceding line breaks.

```

37 \AtBeginDocument{\@ifpackageloaded{amsmath}{%
38   \renewcommand\eqref{\no@break@before\labelcref}}%
39 }{}}

```

`\usecommand` Define the `\usecommand` macro providing an anonymous function.

```

40 \providecommand\hep@use@command{}
41 \newcommand\usecommand[2][1]{%
42   \renewcommand\hep@use@command[#1]{#2}\hep@use@command%
43 }

```

`\textlabel` Define the `\textlabel` macro allowing to link to a piece of text using the ETOOLBOX package [4].

```

44 \RequirePackage{etoolbox}
45 \NewDocumentCommand\textlabel{0{}m0{}m}{%
46   \protected@write\@auxout{}{%
47     \string\newlabel{#2}{%
48       {\hspace{-4pt}\protecting{#1{#4}}}{\thepage}{#4}{#2}{}}%
49   }%
50 }%
51 \hypertarget{#2}{}%
52 {#3{#4}}%
53 }

```

`\cref` Improve reference using the CLEVEREF package [1].

```

54 \PassOptionsToPackage{noabbrev, nameinlink}{cleveref}
55 \RequirePackage{cleveref}
56 \newcommand{\creflastconjunction}{, and\nobreakspace}
57 \crefname{enumi}{point}{points}
58 \crefname{inlinelisti}{point}{points}

```

`\no@break@before` Define a macro able to prevent line breaks.

```

59 \newcommand\no@break@before{%
60   \relax\ifvmode\else%
61     \ifhmode%
62       \ifdim\lastskip > 0pt%
63         \relax\unskip\nobreakspace%
64         \fi%
65       \fi%
66     \fi%
67 }

```

`\subref` Adjust `\subref{<key>}` from the SUBCAPTION package in order to prevent preceding line breaks.

```

68 \AtBeginDocument{\@ifpackageloaded{subcaption}{%
69   \let\hep@subref\subref
70   \renewcommand\subref{\no@break@before\hep@subref}
71   \renewcommand*\subcaption@ref[2]{\begingroup%
72     \caption@setoptions{sub}%
73     \subcaption@reffmt\p@subref{\hep@ref#1{sub@#2}}%
74   \endgroup}

```

`\subcref` Provide the `\subcref` macro.

```

75 \newcommand{\subcref}[1]{\cref{sub@#1}}
76 }{}}

```

`\eqcrefname` Define the `\eqcrefname` macro for named equation types.

```
77 \NewDocumentCommand{\eqcrefname}{mmo}{
78   \crefname{#1}{#2}{\IfValueTF{#3}{#3}{#2s}}
79   \creflabelformat{#1}{(##2##1##3)}
80 }
```

`\labelcrefrange` Define the missing `\labelcrefrange{<key1>}{<key2>}` macro.

```
81 \DeclareRobustCommand{\labelcrefrange}[2]{%
82   \@crefrangenostar{labelcref}{#1}{#2}%
83 }
```

Adjust the title page

```
84 \AtBeginDocument{\@ifpackageloaded{hep-title}{%
85   \labelcrefmultiformat{affiliation}{#2#1#3}{%
86     \textsuperscript,#2#1#3}{\textsuperscript,#2#1#3%
87   }{%
88     \textsuperscript,#2#1#3%
89   }
90   \labelcrefrangeformat{affiliation}{#3#1#4\textsuperscript{--}#5#2#6}
91 }{}}
```

### A.3 Citations

`\cite` Adjust `\cite{<key>}` in order to prevent preceding line breaks.

```
92 \let\hep@cite\cite
93 \renewcommand\cite{\no@break@before\hep@cite}
```

`</package>`

## B Tests

`<*test>`

```
94 \documentclass{article}
95
96 \usepackage{amsmath}
97 \usepackage{hep-reference}
98 \usepackage{parskip}
99 \providecommand{\cref}{section \ref}
100
101 \begin{document}
102
103 \section{Section} \label{sec:Section}
104
105 Lorem ipsum dolor sit amet, consectetur adipiscing elit.
106 Etiam lobortis section \ref{sec:Section}
107
```

```

108 Lorem ipsum dolor sit amet, consectetur adipiscing elit.
109 Etiam lobortis \cref{sec:Section}
110
111 Lorem ipsum dolor sit amet, consectetur adipiscing elit.
112 Etiam lobortis equation \eqref{eq:Equation}
113
114 Lorem ipsum dolor sit amet, consectetur adipiscing elit.
115 Etiam lobortis reference \cite{cite}
116
117 Lorem ipsum dolor sit amet, consectetur adipiscing elit.
118 \footnote{
119 Lorem ipsum dolor sit amet, consectetur adipiscing elit.
120 }
121
122 \begin{equation} \label{eq:Equation}
123 E=mc^2
124 \end{equation}
125
126
127 \begin{thebibliography}{1}
128 \bibitem{cite} reference
129 \end{thebibliography}
130
131 \end{document}

```

</test>

## C Readme

<\*readme>

```

132 # The 'hep-reference' package
133
134 A 'LaTeX' package for publications in High Energy Physics.
135
136 ## Introduction
137
138 The 'hep-reference' package applies some light convenience modifications
139 to the reference, citation and footnote macros after loading standard
140 classes improving on the default LaTeX behaviour.
141
142 ## Author
143
144 Jan Hajer
145
146 ## License
147
148 This file may be distributed and/or modified under the conditions of the
149 'LaTeX' Project Public License, either version 1.3c of this license or
150 (at your option) any later version. The latest version of this license is
151 in 'http://www.latex-project.org/lppl.txt' and version 1.3c or later is

```

152 part of all distributions of LaTeX version 2005/12/01 or later.

</readme>

## References

- [1] T. Cubitt. ‘The `cleveref` package: Intelligent cross-referencing’ (2006). CTAN: `cleveref`. URL: [dr-qubit.org/cleveref](http://dr-qubit.org/cleveref).
- [2] *L<sup>A</sup>T<sub>E</sub>X<sub>3</sub> Project*. ‘Hypertext marks in L<sup>A</sup>T<sub>E</sub>X: a manual for `hyperref`: Extensive support for hypertext in L<sup>A</sup>T<sub>E</sub>X’ (1995). CTAN: `hyperref`. GitHub: [latex3/hyperref](https://github.com/latex3/hyperref).
- [3] H. Lange. ‘The `footnotebackref` package: Back-references from footnotes’ (2012). CTAN: `footnotebackref`.
- [4] P. Lehman and J. Wright. ‘The `etoolbox` package: e-TeX tools for L<sup>A</sup>T<sub>E</sub>X’ (2007). CTAN: `etoolbox`.