The HEP-REFERENCE package*

Hyperref and cleveref setup with unbreakable references, footnote back-links and PDF metadata

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Abstract

The HEP-REFERENCE package collects small reference-related adjustments for high-energy physics documents. It loads and configures HYPERREF, CLEVEREF, and FOOTNOTEBACKREF, suppresses unwanted line breaks before references and citations, adds backlinking footnotes, sets useful PDF metadata from the document title data, and provides helper macros for text labels, subobject references, and named equation-like references.

1 Introduction

Load the package with `\usepackage{hep-reference}`.

The HYPERREF package [1] is loaded with hidden, breakable links and Unicode-aware PDF strings. The package also clears the PDF creator and producer fields and disables fragile formatting commands in bookmarks. In PDF strings such as bookmarks and the PDF title, line breaks `\\` become spaces, footnotes, thanks, and citations are dropped, and `\eqref{`⟨*key*⟩`}` gives the equation number in parentheses. Before `\maketitle` is executed, the PDF title is filled from `\title` and, if present, the subtitle defined by HEP-TITLE; keywords from HEP-TITLE are passed to the PDF metadata as well. If HEP-TITLE is loaded, label-only references to affiliations are formatted as superscript lists and ranges on the title page.

`\subject` The `\subject{`⟨*subject*⟩`}` macro sets the subject of the PDF, which is also passed to the PDF metadata before `\maketitle` is executed. Classes that define their own `\subject`, such as the KOMA-Script classes, keep their definition, and the subject given with it becomes the PDF subject.

`\cref` `\labelcrefrange` References are extended with the CLEVEREF package [2], loaded with the `noabbrev` and `nameinlink` options. This allows `\cref{`⟨*key*⟩`}` to write context-sensitive references such as 'figure 1', and `\cref{`⟨*key1,key2*⟩`}` to combine multiple references. The final conjunction is set to a comma followed by a non-breaking 'and', enumerated items from `enumerate` and `inlinelist` are named 'point' and 'points', and `\labelcrefrange{`⟨*key1*⟩`}{`⟨*key2*⟩`}` provides the corresponding range command for label-only references.

`\eqcrefname` The `\eqcrefname{`⟨*counter*⟩`}{`⟨*singular*⟩`}[`⟨*plural*⟩`]` macro declares a CLEVEREF name for an equation-like counter and formats label-only references to that counter in parentheses. If the optional plural is omitted, the plural form is built by appending 's' to the singular name.

`\ref` `\eqref` `\subref` `\cite` The `\ref`, `\eqref`, `\subref`, and `\cite` commands are adjusted so that a preceding inter-word space is converted to a non-breaking space. Wider spaces, such as `\quad`, are kept. This avoids line

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starts such as '[1]' or '(2)' without requiring repeated manual uses of `~\cite{`⟨*key*⟩`}`. The adjusted commands are robust, so they can be used in section titles and captions. When AMSMATH is loaded, `\eqref` is routed through `\labelcref`. When SUBCAPTION is loaded, `\subref` keeps the same no-break behaviour.

`\subcref` If SUBCAPTION is loaded, the package additionally defines `\subcref{`⟨*key*⟩`}`, which applies `\cref` to the underlying subobject label.

`\footnote` Footnotes are adjusted to swallow white space before the footnote mark and at the beginning of the footnote text; the optional footnote number of `\footnote[`⟨*number*⟩`]{`⟨*text*⟩`}` is kept, and the text may contain several paragraphs. They also receive backlinks to the text location from which they were called.

`\textlabel` The `\textlabel[`⟨*reference format*⟩`]{`⟨*key*⟩`}[`⟨*text format*⟩`]{`⟨*text*⟩`}` macro creates a hyperlink target and a label for a piece of text while also printing the text. The first optional argument formats the text stored in the label and the second optional argument formats the printed text. The text is the reference of both `\ref` and `\cref`.

`\usecommand` The `\usecommand[`⟨*number of arguments*⟩`]{`⟨*definition*⟩`}` helper defines a temporary command with the requested number of arguments and immediately applies it to the following arguments.

References

[1] *LaTeX3 Project*. 'Hypertext marks in LaTeX: a manual for `hyperref`: Extensive support for hypertext in LaTeX' (1995). CTAN: `hyperref`. GitHub: `latex3/hyperref`.

[2] T. Cubitt. 'The `cleveref` package: Intelligent cross-referencing' (2006). CTAN: `cleveref`. URL: `dr-qubit.org/cleveref`.