

Articles for Proceedings of Machine
Learning Research (PMLR) formerly
Journal of Machine Learning Research
Workshop and Conference Proceedings
(JMLR W&CP)

Nicola L. C. Talbot

<http://www.dickimaw-books.com/>

2022-02-09 (version 1.30)

Contents

1	Introduction	4
1.1	Required Packages	4
2	Guidelines for Article Authors	6
2.1	Title Information	6
2.2	Font Changing Commands	10
2.3	Structure	10
2.4	Citations and Bibliography	12
2.5	jmlrutils supplementary package	12
2.5.1	Package Options	12
2.5.2	Figures and Tables	13
2.5.3	Algorithms	15
2.5.4	Description Lists	17
2.5.5	Theorems, Lemmas etc	17
2.5.6	Cross-Referencing	19
2.5.7	Mathematics	21
2.6	Color vs Grayscale	23
2.7	Where To Go For Help	24
3	Guidelines for Production Editors	25
3.1	jmlrbook Class Options	25
3.2	The Preamble	26
3.3	Main Book Commands	28
3.3.1	Two Column Articles in a One Column Book	32
3.3.2	Cross-Referencing	32
3.4	Altering the Layout of the Main Title Page	33
3.5	Potential Pitfalls	34
4	The Code	36
4.1	jmlrutils.sty Code	36
4.1.1	Cross-Referencing	37
4.1.2	Figures, Tables and Algorithms	40
4.1.3	General Markup	46
4.1.4	Proofs and Theorems	48
4.2	jmlr.cls Code	53
4.2.1	Sections	58
4.2.2	Footnotes	59
4.2.3	Article abstract	59

4.2.4	Keywords	60
4.2.5	Title Page Information	60
4.2.6	Pagestyles	67
4.2.7	Miscellany	70
4.2.8	Compatibility with combine.cls	74
4.3	jmlrbook.cls Code	84
	Change History	117
	Index	120

1 Introduction

The `jmlr` class was designed primarily for the Journal of Machine Learning Research Workshop and Conference Proceedings (JMLR W&CP) based on the `jmlrwcp2e` package to make it easier for production editors to combine articles into a single book.

The `nowcp` option implements the `jmlr2e` style to make it easier to include reprints from JMLR articles. If you are an author wanting to submit an article to the JMLR, please see their guidelines and use their official package.

Since the creation of this class, the JMLR W&CP has changed its name to the Proceedings of Machine Learning Research (PMLR). Articles submitted to the PMLR should use the `pmlr` option. Reprints of old JMLR W&CP articles should use the `wcp` option.

The `jmlrbook` class was provided to combine articles that use the `jmlr` class into a book. The `combine` class internally used by `jmlrbook` has stopped work following changes to the \LaTeX kernel in 2020. This means that the `jmlrbook` class is now deprecated. This only affects production editors not article authors.

As from v1.24, some non-class dependent commands and environments have been moved to a new package `jmlrutils` (see Section 2.5). This package is automatically loaded by `jmlr`, but may be used with other classes. (Note that you will need to explicitly load `algorithm2e` if you want to use the `algorithm` environment.)

Note that the `jmlr` (and therefore `jmlrbook`) class automatically loads the `hyperref` package, but some packages need to be loaded before `hyperref`.

Anything that needs to be done before `hyperref` is loaded can be specified by defining the command

`\jmlrprehyperref`

```
\jmlrprehyperref
```

before the class is loaded. For example, to load the packages `foo` and `bar` before `hyperref`, you can do:

```
\newcommand{\jmlrprehyperref}{\usepackage{foo,bar}}
\documentclass{jmlr}
```

1.1 Required Packages

The `jmlr` class is based on the `article` class and loads the following packages: `jmlrutils` (see Section 2.5), `amsmath`, `amssymb`, `natbib`, `url`, `graphicx` and `algorithm2e`, `hyperref`, `nameref`, `xcolor`

and xkeyval. Note that unlike the jmlr2e and jmlrwcp2e packages, this class file does not load the obsolete epsfig package.

2 Guidelines for Article Authors

Article authors should use the `jmlr` class with the `pmlr` option. This class comes with the example file `pmlr-sample.tex`, which can be used as a template.

The following class options are available:

pmlr The article is for the Proceedings of Machine Learning Research (PMLR).

wcp The article is for JMLR Workshop and Conference Proceedings (JMLR W&CP).

nowcp The article is for the Journal of Machine Learning Research (default).

twocolumn Use two-column style. The title and author information will span both columns through the use of the optional argument of `\twocolumn`. This means that no page break can occur in the title and author list.

onecolumn Use one-column style (default).

color Color version (see Section 2.6).

gray Grayscale version (see Section 2.6).

tablecaption=top in a table environment, `\floatconts` puts the caption at the top.

tablecaption=bottom in a table environment, `\floatconts` puts the caption at the bottom.

cleveref This option is passed to `jmlrutils` (see Section 2.5).

nocleveref This option is passed to `jmlrutils` (see Section 2.5).

2.1 Title Information

The `jmlr` class uses different syntax from `jmlr2e` and `jmlrwcp2e` to specify the title information. In particular, it doesn't define `\jmlrheading` and `\ShortHeading`. Instead, the following commands should be used:

`\jmlrvolume`

```
\jmlrvolume{<number>}
```

This specifies the volume number. For example:

```
\jmlrvolume{2}
```

`\jmlryear`

```
\jmlryear{<year>}
```

This specifies the year. For example:

```
\jmlryear{2010}
```

`\jmlrsubmitted`

```
\jmlrsubmitted{<date>}
```

This specifies the submission date.

`\jmlrpublished`

```
\jmlrpublished{<date>}
```

This specifies the publication date.

`\jmlrworkshop`

```
\jmlrworkshop{<title>}
```

This specifies the workshop title (for use with the `wcp` class option).

The title information is specified using the commands described below. These commands should typically go in the preamble. As with most class files, The title itself is produced using

`\maketitle`

```
\maketitle
```

This command should go after `\begin{document}`. For example:

```
\begin{document}  
\maketitle
```

Before `\maketitle`, you must specify the title information using the following commands:

`\title`

```
\title[<short title>]{<title>}
```

This specifies the article's title. A short title for the page header can be supplied via the optional argument *<short title>*. If you want to force a line break in the title, use

`\titlebreak`

```
\titlebreak
```

instead of `\newline` or `\\` as this will ensure that the line break doesn't also end up in the table of contents or bookmarks when the article is included in a book. If there is content within the title that should not appear in the page headings or table of contents (for example, a footnote) use

`\titletag`

```
\titletag{<title only stuff>}
```

For example:

```
\title{An Interesting Paper\titlebreak  
With a Line Break\titletag{\thanks{and an  
acknowledgement}}}
```

`\editor`

```
\editor{<name>}
```

This specifies the editor's name. If there is more than one editor, use:

`\editors`

```
\editors{<names>}
```

`\author`

```
\author{<author specs>}
```

This specifies the author. The specifications *<author specs>* are a bit different to `jmlr2e` and `jmlrwcp2e`. Use

`\Name`

```
\Name[<abbreviated name>]{<author's name>}
```

to specify the author's name. Note that if the surname contains a space it must be grouped (enclosed in braces `{}`). Similarly if the initial letter of each forename is a diacritic it must be grouped. If the abbreviation of the name doesn't get parsed properly you can override the default using the optional argument. (See below for examples.)

If there is any content within *<author's name>* that shouldn't get copied to the header, footer or table of contents, it should be enclosed within the argument of

`\nametag`

```
\nametag{<title only stuff>}
```

For example:

```
\Name{Ann Other\nametag{\thanks{formerly with some other  
institute}}}
```

Ensure no space occurs before `\nametag` otherwise the surname will be interpreted as an empty string because the space is used to separate the forenames from the surname.

`\Email`

```
\Email{author's email}
```

This specifies the author's email address. It should only be used within the argument to `\author`.

`\and`

```
\and
```

This should be used to separate two authors with the same address.

`\AND`

```
\AND
```

This should be used to separate authors with different addresses.

`\`

```
\
```

This should be used before an author's address or between authors with the same address where there are more than two authors.

`\addr`

```
\addr
```

This should be used at the start of the address.

Example 1 Two authors with the same address:

```
\author{\Name{Jane Doe} \Email{abc@sample.com}\and
\Name{John {Basey Fisher}} \Email{xyz@sample.com}\}
\addr Address}
```

In this example, the second author has a space in his surname so the surname needs to be grouped.

Example 2 Three authors with the same address:

```
\author{\Name{Fred Arnold {de la Cour}} \Email{an1@sample.com}\}
\Name{Jack Jones} \Email{an3@sample.com}\}
\Name{{\ 'E}louise {\ 'E}abhla Finchley} \Email{an2@sample.com}\}
\addr Address}
```

In this example, the third author has an accent on her forename initials so grouping is required.

Example 3 Authors with a different address:

```
\author{\Name{John Smith} \Email{abc@sample.com}}\
\addr Address 1
\AND
\Name{May Brown} \Email{xyz@sample.com}}\
\addr Address 2
}
```

Example 4 The author is actually a company so there's no first name and surname:

```
\author{\Name[Some Company, Ltd]{Some Company, Ltd}\Email{xyz:some.com}}\
\addr Address
}
```

2.2 Font Changing Commands

Use the $\LaTeX_{2\epsilon}$ font changing commands, such as `\bfseries` or `\textbf{<text>}`, rather than the obsolete $\LaTeX_{2.09}$ commands, such as `\bf`. (The obsolete font changing commands will produce a warning if used.)

`\url`

```
\url{<address>}
```

This will typeset `<address>` in a typewriter font. Special characters, such as `~`, are correctly displayed. Example:

```
\url{http://theoval.cmp.uea.ac.uk/~nlct/}
```

This command is provided by the `url` package which is automatically loaded.

`\mailto`

```
\mailto{<email address>}
```

This will typeset the given email address in a typewriter font. Note that this is not the same as `\Email`, which should only be used in the argument of `\author`. This command is provided by the supplementary package `jmlrutils`. Other commands are described in Section 2.5.

2.3 Structure

`abstract`

```
\begin{abstract}
<text>
\end{abstract}
```

The abstract text should be displayed using the abstract environment.

keywords `\begin{keywords}<keyword list>\end{keywords}`

The keywords should be displayed using the keywords environment.

`\acks`
`\acks{<text>}`

This displays the acknowledgements.

`\section`
`\section{<title>}`

Section titles are created using `\section`. The heading is automatically numbered and can be cross-referenced using `\label` and `\ref`. Unnumbered sections can be produced using:

`\section*`
`\section*{<title>}`

`\subsection`
`\subsection{<title>}`

Sub-section titles are created using `\subsection`. Unnumbered sub-sections can be produced using:

`\subsection*`
`\subsection*{<title>}`

`\subsubsection`
`\subsubsection{<title>}`

Sub-sub-section titles are created using `\subsubsection`. Unnumbered sub-sub-sections can be produced using:

`\subsubsection*`
`\subsubsection*{<title>}`

Further sectioning levels can be obtained using `\paragraph` and `\subparagraph`, but these are unnumbered with running heads.

`\appendix`
`\appendix`

Use `\appendix` to switch to the appendices. This changes `\section` to produce an appendix. Example:

```
\appendix
\chapter{Proof of Theorems}
```

2.4 Citations and Bibliography

The `jmlr` class automatically loads `natbib` and sets the bibliography style to `plainnat`. References should be stored in a `.bib` file.

`\bibliography`

```
\bibliography{< bib file >}
```

This displays the bibliography.

`\citep`

```
\citep[< pre note >][< post note >]{< label >}
```

Use `\citep` for a parenthetical citation.

`\citet`

```
\citet[< note >]{< label >}
```

Use `\citet` for a textual citation.

See the `natbib` documentation¹ for further details.

2.5 jmlrutils supplementary package

The `jmlrutils` package is automatically loaded by the `jmlr` class but may be used with other classes.

2.5.1 Package Options

The following options may be passed to the `jmlrutils` package if it is to be used without the `jmlr` class.

maths Define the commands `\set` and `\oldvec` and redefine `\vec`. This will also automatically load the `amsmath` package. (Default.)

nomaths Don't define `\set` and `\oldvec` and don't redefine `\vec`.

theorems Define the theorem commands and environments listed in Section 2.5.5. (Default.)

notheorems Don't define the theorem commands and environments.

cleveref Loads `aliascnt` and `cleveref` and defines the theorem environments with aliased counters. Note that this option is largely redundant with `notheorems`. When `jmlrutils` is loaded implicitly by `jmlr`, this option will also ensure that `hyperref` is loaded before `cleveref`. If `jmlrutils` is loaded without `jmlr` then `hyperref` won't be loaded unless `\jmlrprehyperref` is defined.

¹<http://ctan.org/pkg/natbib>

nocleveref Don't load aliascnt and cleveref (default).

subfloats Define the sub-figure and sub-table commands listed in Section 2.5.2. (Default.)

nosubfloats Don't define the sub-figure and sub-table commands.

The non-default options are provided when jmlrutils is loaded without the jmlr class. Don't try passing the non-default options to jmlrutils if you are using the jmlr class as this could interfere with the build process for the proceedings or book.

The jmlrutils package doesn't recognise any of the jmlr class options (such as tablecaption).

2.5.2 Figures and Tables

Floats, such as figures, tables and algorithms, are moving objects and are supposed to float to the nearest convenient location. Please don't force them to go in a particular place. In general it's best to use the htbp specifier and don't put the float in the middle of a paragraph (that is, make sure there's a paragraph break above and below the float). Floats are supposed to have a little extra space above and below them to make them stand out from the rest of the text. This extra space is put in automatically and shouldn't need modifying.

To ensure consistency, please *don't* try changing the format of the caption by doing something like:

```
\caption{\textit{A Sample Caption.}}
```

or

```
\caption{\em A Sample Caption.}
```

You can, of course, change the font for individual words or phrases. For example:

```
\caption{A Sample Caption With Some \emph{Emphasized Words}.}
```

The jmlrutils package provides the following command for displaying the contents of a figure or table:

`\floatconts`

```
\floatconts{<label>}{<caption command>}{<contents>}
```

This ensures that the caption is correctly positioned and that the contents are centred. For example:

```
\begin{table}[htbp]
\floatconts
  {tab:example}% label
  {\caption{An Example Table}}% caption command
  {%
    \begin{tabular}{ll}
    \bfseries Dataset & \bfseries Result\\
    Data1 & 0.123456
    \end{tabular}
  }
\end{table}
```

If the `jmlr` class is used, the table caption (when used with `\floatconts`) will obey the table-caption class option, otherwise it will be placed above the table contents. Within the figure environment, `\floatconts` will put the caption below the contents. This command may be used within other floats.

The `jmlr` class automatically loads `graphicx` which defines:

`\includegraphics`

```
\includegraphics[<options>]{<file name>}
```

where *<options>* is a comma-separated list of options. If you are using `jmlrutils` with another class you need to load `graphicx` in order to use this command. See the documentation for the `graphicx` package for further details of this command and other provided commands.

For example, suppose you have an image called `mypic.png` in a subdirectory called `images`:

```
\begin{figure}[htbp]
\floatconts
  {fig:example}% label
  {\caption{An Example Figure}}% caption command
  {\includegraphics[width=0.5\textwidth]{images/mypic}}
\end{figure}
```

Note that you shouldn't specify the file extension when including the image when using the `jmlr` class. It's helpful if you can also provide a grayscale version of colour images. This should be labelled as the colour image but with `-gray` immediately before the extension. (The extension need not be the same as that of the colour image.) For example, if you have an image called `mypic.pdf`, the grayscale can be called `mypic-gray.pdf`, `mypic-gray.png` or `mypic-gray.jpg`. See Section 2.6 for further details.

`\includeteximage`

```
\includeteximage[<options>]{<file name>}
```

If your image file is made up of \LaTeX code (e.g. `tikz` commands) the file can be included using `\includeteximage`. The optional argument is a key=value comma-separated list where the available keys are a subset of those provided by `graphicx`'s `\includegraphics`. The main keys are: `width`, `height`, `scale` and `angle`. Some of the keys specific to image files (such as the bounding box and type keys) do nothing with `\includeteximage`.

Sub-Figures and Sub-Tables

The `subfig` package causes a problem for `jmlrbook` so the `jmlr` class will give an error if it is used. Therefore the `jmlr` class provides its own commands for including sub-figures and sub-tables. If you aren't using the `jmlr` class, you can prevent `jmlrutils` from defining these commands with the `nosubfloats` package option.

Sub-float captions that are wider than the corresponding sub-float content are placed inside a `\parbox` set to the width of the sub-float content. This allows long captions to line

wrap in a mini-paragraph below the sub-float. However, if the sub-float is very narrow, this can lead to badly-broken sub-captions that generate overfull or underfull hbox warnings. You can specify a minimum width for sub-float captions by setting the following length:

`\jmlrminsubcaptionwidth`

```
\jmlrminsubcaptionwidth
```

The default value is 0pt. The value should be set with `\setlength`. The assignment can be localised by placing it within a group or environment.

`\subfigure`

```
\subfigure[<title>] [<valign>]{<contents>}
```

This makes a sub-figure where `<contents>` denotes the contents of the sub-figure. This should also include the `\label`. The first optional argument `<title>` indicates a caption for the sub-figure. By default, the sub-figures are aligned at the base. This can be changed with the second optional argument `<valign>`, which may be one of: t (top), c (centred) or b (base).

For example, suppose there are two images files, `mypic1.png` and `mypic2.png`, in the sub-directory `images`. Then they can be included as sub-figures as follows:

```
\begin{figure}[htbp]
\floatconts
{fig:example2}% label for whole figure
{\caption{An Example Figure.}}% caption for whole figure
{%
  \subfigure{%
    \label{fig:pic1}% label for this sub-figure
    \includegraphics{images/mypic1}
  }\quad % space out the images a bit
  \subfigure{%
    \label{fig:pic2}% label for this sub-figure
    \includegraphics{images/mypic2}
  }
}
\end{figure}
```

`\subtable`

```
\subtable[<title>] [<valign>]{<contents>}
```

This is an analogous command for sub-tables. The default value for `<valign>` is t.

2.5.3 Algorithms

The `jmlr` class automatically loads the `algorithm2e` package. If you are using `jmlrutils` with another class, you will need to load `algorithm2e` if you want to use the `algorithm` and `algorithm2e` environments described below.

algorithm

```
\begin{algorithm}[\langle placement \rangle]
\langle contents \rangle
\end{algorithm}
```

Enumerated textual algorithms can be displayed using the algorithm environment. The optional argument is as for figure and table.

Within the body of the environment you can use the enumerate environment.

enumerate*

```
\begin{enumerate*}
\item \langle text \rangle
...
\end{enumerate*}
```

If you want to have nested enumerate environments but you want to keep the same numbering throughout the algorithm, you can use the enumerate* environment, provided by the jmlrutils package. For example:

```
\begin{algorithm}
\floatconts{alg:path}%label
{\caption{Shortest Path}}% caption
{% contents
\begin{enumerate*}
\item Set the label of vertex  $s$  to 0
\item Set  $i=0$ 
\begin{enumerate*}
\item \label{step:locate}Locate all unlabelled vertices
adjacent to a vertex labelled  $i$  and label them  $i+1$ 
\item If vertex  $t$  has been labelled,
\begin{enumerate*}
\item[] the shortest path can be found by backtracking, and
the length is given by the label of  $t$ .
\end{enumerate*}
\end{enumerate*}
otherwise
\begin{enumerate*}
\item[] increment  $i$  and return to step~\ref{step:locate}
\end{enumerate*}
\end{enumerate*}
\end{enumerate*}
}
```

algorithm2e

```
\begin{algorithm2e}
\langle contents \rangle
\end{algorithm2e}
```

Pseudo code can be displayed using the `algorithm2e` environment, provided by the `algorithm2e` package, which is automatically loaded. For example:

```
\begin{algorithm2e}
\caption{Computing Net Activation}
\label{alg:net}
\DontPrintSemicolon
\LinesNumbered
\KwIn{$x_1, \dots, x_n, w_1, \dots, w_n$}
\KwOut{$y$, the net activation}
$y \leftarrow 0$;
\For{$i \leftarrow 1$ \KwTo $n$}{
  $y \leftarrow y + w_i * x_i$;
}
\end{algorithm2e}
```

See the `algorithm2e` documentation² for more details.

2.5.4 Description Lists

`altdescription`

```
\begin{altdescription}{\langle widest label \rangle}
\item[\langle label \rangle] \langle item text \rangle
\end{altdescription}
```

In addition to the standard description environment, the `jmlr` class also provides the `altdescription` environment. This has an argument that should be the widest label used in the list. For example:

```
\begin{altdescription}{differentiate}
\item[add] A method that adds two variables.
\item[differentiate] A method that differentiates a function.
\end{altdescription}
```

2.5.5 Theorems, Lemmas etc

The `jmlrbook` class doesn't work well with common theorem packages, so `jmlrutils` provides theorem code that won't conflict with `jmlrbook`. If you're using `jmlrutils` without the `jmlr` class, you can prevent the definition of these commands with the `notheorems` package option.

The `jmlrutils` package provides the following theorem-like environments: `theorem`, `example`, `lemma`, `proposition`, `remark`, `corollary`, `definition`, `conjecture` and `axiom`. Within the body of those environments, you can use the `proof` environment to display the proof if need be. The theorem-like environments all take an optional argument, which gives the environment a title. For example:

²<http://ctan.org/pkg/algorithm2e>

```

\begin{theorem}[An Example Theorem]
\label{thm:example}
This is the theorem.
\begin{proof}
This is the proof.
\end{proof}
\end{theorem}

```

You can define your own numbered theorem-like environment using:

`\newtheorem`

```
\newtheorem{<name>}[<counter>]{<title>}[<outer counter>]
```

or you can define an unnumbered theorem-like environment using:

`\newtheorem*`

```
\newtheorem*{<name>}{<title>}
```

where *<name>* is the name of the new environment and *<title>* is the title tag at the start of the environment. In the case of the numbered theorems, *<counter>* is a predefined counter to use with this theorem. If omitted, a new counter called *<name>* will be defined. The final optional argument *<outer counter>* is the name of a parent counter which, when incremented, should reset the theorem counter.

Both `\newtheorem` and `\newtheorem*` set the new theorem's style to the current defined style. The current style is set using the following commands:

`\theorembodyfont`

```
\theorembodyfont{<declarations>}
```

This sets the font declarations used in the body of the theorem. This defaults to `\itshape`.

`\theoremheaderfont`

```
\theoremheaderfont{<declarations>}
```

This sets the font declarations used for the theorem title. This defaults to `\bfseries`.

`\theorempostheader`

```
\theorempostheader{<text>}
```

This indicates what should occur at the end of the title. This defaults to nothing.

`\theoremsep`

```
\theoremsep{<text>}
```

This indicates what to put between the header and the body of the environment. This defaults to nothing.

For example, to define an unnumbered theorem-like environment called “note” with the title “Note” followed by a colon and a new line between the title and the body of the note environment:

```
\theorembodyfont{\upshape}
\theoremheaderfont{\scshape}
\theorempostheader{:}
\theoremsep{\newline}
\newtheorem*{note}{Note}
```

Now it can be used in the document environment:

```
\begin{note}
This is an unnumbered theorem-like environment.
\end{note}
```

2.5.6 Cross-Referencing

Always use `\label` when cross-referencing, rather than writing the number explicitly. The `jmlrutils` package provides some convenience commands to assist referencing. These commands, described below, can all take a comma-separated list of labels.

`\sectionref`

```
\sectionref{\<label list>}
```

Used to refer to a section or sections. For example, if you defined a section as follows:

```
\chapter{Results}\label{sec:results}
```

you can refer to it as follows:

```
The results are detailed in \sectionref{sec:results}.
```

This command may also be used for sub-sections and sub-sub-sections.

`\appendixref`

```
\appendixref{\<label list>}
```

Used to refer to an appendix or multiple appendices.

`\equationref`

```
\equationref{\<label list>}
```

Used to refer to an equation or multiple equations.

`\tableref`

```
\tableref{\<label list>}
```

Used to refer to a table or multiple tables. This can also be used for sub-tables where the main table number is also required.

`\subtabref`

```
\subtabref{\label list}
```

Used to refer to sub-tables without the main table number, e.g. (a) or (b).

`\figureref`

```
\figureref{\label list}
```

Used to refer to a figure or multiple figures. This can also be used for sub-figures where the main figure number is also required, e.g. 2(a) or 4(b).

`\subfigref`

```
\subfigref{\label list}
```

Used to refer to sub-figures without the main figure number, e.g. (a) or (b).

`\algorithmref`

```
\algorithmref{\label list}
```

Used to refer to an algorithm or multiple algorithms.

`\theoremref`

```
\theoremref{\label list}
```

Used to refer to a theorem or multiple theorems.

`\lemmaref`

```
\lemmaref{\label list}
```

Used to refer to a lemma or multiple lemmas.

`\remarkref`

```
\remarkref{\label list}
```

Used to refer to a remark or multiple remarks.

`\corollaryref`

```
\corollaryref{\label list}
```

Used to refer to a corollary or multiple corollaries.

`\definitionref`

```
\definitionref{\label list}
```

Used to refer to a definition or multiple definitions.

`\conjectureref`

```
\conjectureref{\label list}
```

Used to refer to a conjecture or multiple conjectures.

`\axiomref`

```
\axiomref{<label list>}
```

Used to refer to an axiom or multiple axioms.

`\exempleref`

```
\exempleref{<label list>}
```

Used to refer to an example or multiple examples.

2.5.7 Mathematics

The `jmlr` class loads the `amsmath` package so you can use any of the commands and environments defined in that package. The `jmlrutils` package will load `amsmath` if the default `maths` package option is used but won't load `amsmath` if the `nomaths` option is used. A brief summary of some of the more common commands and environments is provided here. See the `amsmath` documentation³ for further details.

`\set`

```
\set{<maths>}
```

In addition to the commands provided by `amsmath`, the `jmlrutils` package also provides the `\set` command which can be used to typeset a set. For example:

The universal set is denoted \set{U}

This command won't be provided if the `nomaths` option is used.

`\vec`

```
\vec{<maths>}
```

The `\vec` command is redefined by `jmlrutils` to use `\boldsymbol`, which is provided by `amsmath`. (This command won't be redefined if the `nomaths` option is used.) If you require the original `\vec`, you can access it with:

`\orgvec`

```
\orgvec{<maths>}
```

This command won't be provided if the `nomaths` option is used.

Unnumbered single-line equations should be displayed using `\[` and `\]`. For example:

```
\[E = m c^2\]
```

³<http://ctan.org/pkg/amsmath>

for example

```
\DeclareMathOperator{\var}{var}
```

and then use this new command:

If X and Y are independent,
 $\var(X+Y) = \var(X) + \var(Y)$

If you want limits that go above and below the operator (like `\sum`) use the starred versions (`\operatorname*` or `\DeclareMathOperator*`).

Table 2.1: Predefined Operator Names (taken from amsmath documentation)

<code>\arccos</code>	<code>arccos</code>	<code>\deg</code>	<code>deg</code>	<code>\lg</code>	<code>lg</code>	<code>\projlim</code>	<code>projlim</code>
<code>\arcsin</code>	<code>arcsin</code>	<code>\det</code>	<code>det</code>	<code>\lim</code>	<code>lim</code>	<code>\sec</code>	<code>sec</code>
<code>\arctan</code>	<code>arctan</code>	<code>\dim</code>	<code>dim</code>	<code>\liminf</code>	<code>liminf</code>	<code>\sin</code>	<code>sin</code>
<code>\arg</code>	<code>arg</code>	<code>\exp</code>	<code>exp</code>	<code>\limsup</code>	<code>limsup</code>	<code>\sinh</code>	<code>sinh</code>
<code>\cos</code>	<code>cos</code>	<code>\gcd</code>	<code>gcd</code>	<code>\ln</code>	<code>ln</code>	<code>\sup</code>	<code>sup</code>
<code>\cosh</code>	<code>cosh</code>	<code>\hom</code>	<code>hom</code>	<code>\log</code>	<code>log</code>	<code>\tan</code>	<code>tan</code>
<code>\cot</code>	<code>cot</code>	<code>\inf</code>	<code>inf</code>	<code>\max</code>	<code>max</code>	<code>\tanh</code>	<code>tanh</code>
<code>\coth</code>	<code>coth</code>	<code>\injlim</code>	<code>injlim</code>	<code>\min</code>	<code>min</code>		
<code>\csc</code>	<code>csc</code>	<code>\ker</code>	<code>ker</code>	<code>\Pr</code>	<code>Pr</code>		
		<code>\varlimsup</code>	$\overline{\lim}$	<code>\varinjlim</code>	\varinjlim		
		<code>\varliminf</code>	$\underline{\lim}$	<code>\varprojlim</code>	\varprojlim		

2.6 Color vs Grayscale

If the proceedings are to be incorporated into a black and white printed book, it can be helpful if authors supply grayscale versions of their image files. This section can be ignored if your article will only be available online.

With external PDF, PNG or JPG graphic files, the grayscale version should be named with `-gray` added to the basename (before the image file extension).

For example, if the file is called `myimage.png`, then the gray version should be `myimage-gray.png` or `myimage-gray.pdf` or `myimage-gray.jpg`. You don't need to modify your code. The `jmlr` class checks for the existence of the grayscale version if it is print mode (provided you have used `\includegraphics` and haven't specified the file extension). This check is performed by code provided by the `jmlr` class not the `jmlrutils` package.

`\ifprint`

```
\ifprint{\true part}{\false part}
```

You can use `\ifprint` to determine which mode you are in. For example:

in `\figureref{fig:nodes}`, the `\ifprint{dark gray}{purple}` ellipse represents an input and the `\ifprint{light gray}{yellow}` ellipse represents an output.

Another example:

```
{\ifprint{\bfseries}{\color{red}}important text!}
```

You can use the class option `gray` to see how the document will appear in gray scale mode.

The `xcolor` class is loaded with the `x11names` option, so you can use any of the `x11` predefined colors (listed in the `xcolor` documentation⁴).

2.7 Where To Go For Help

If you have a general \TeX query, the first place to go to is the \TeX FAQ⁵.

If you are unfamiliar or just getting started with \TeX , there's a list of on-line introductions to \TeX at <https://texfaq.org/FAQ-man-latex> or have a look at [\$\text{\TeX}\$ for Complete Novices](#).

There are also forums, mailing lists and newsgroups. For example, \TeX on StackExchange (<https://tex.stackexchange.com/>), the \TeX Community (<https://latex.org/forum/>), the `texhax` mailing list (<http://tug.org/mailman/listinfo/texhax>) and `comp.text.tex` (archives available at <http://groups.google.com/group/comp.text.tex/>).

Documentation for packages or classes can be found using the `texdoc` application. For example:

```
texdoc natbib
```

Alternatively, you can go to <http://www.ctan.org/pkg/<name>> where `<name>` is the name of the package. For example: <http://www.ctan.org/pkg/natbib>

For a general guide to preparing papers (regardless of whether you are using \TeX or a word processor), see Kate L. Turabian, "A manual for writers of term papers, theses, and dissertations", The University of Chicago Press, 1996.

⁴<http://ctan.org/pkg/xcolor>

⁵<https://texfaq.org/>

3 Guidelines for Production Editors

The `jmlrbook` class is now obsolete as it has stopped working following changes to the \LaTeX kernel in 2020. The class is described here for archival purposes.

To prepare articles for PMLR, you will need to manually set the first page number using:

`\firstpageno`

```
\firstpageno{<n>}
```

Please follow the [PMLR specifications](#).

3.1 `jmlrbook` Class Options

nowcp The imported pre-published articles were published in the Journal of Machine Learning Research (default).

pmlr The imported pre-published articles were published in the Proceedings of Machine Learning Research (PMLR).

wcp The imported pre-published articles were published in the JMLR Workshop and Conference Proceedings (JMLR W&CP).

If the book has a mixture of JMLR, JMLR W&CP or PMLR articles, you can switch between them using

`\jmlrnowcp`

```
\jmlrnowcp
```

(for JMLR) or

`\jmlrwcp`

```
\jmlrwcp
```

(for JMLR W&CP) or

`\jmlrpmlr`

```
\jmlrpmlr
```

(for PMLR). Alternatively, you can set the name of the journal or conference proceedings using:

jmlrproceedings

```
\jmlrproceedings{short title}{long title}
```

color Color version (see Section 2.6). Use this option for the on-line version with hyperlinks enabled (default).

gray Grayscale version (see Section 2.6). Use this option for the print version without hyperlinks.

tablecaption=top in a table environment, `\floatconts` puts the caption at the top.

tablecaption=bottom in a table environment, `\floatconts` puts the caption at the bottom.

letterpaper Set the paper size to letter (default).

7x10 Set the paper size to 7 × 10 inches.

10pt Use 10pt as the normal text size.

11pt Use 11pt as the normal text size (default).

12pt Use 12pt as the normal text size.

3.2 The Preamble

Any packages that the imported articles load (which aren't automatically loaded by `jmlr`) must be loaded in the book's preamble. For example, if one or more of the articles load the `siunitx` package, this package must be loaded in the book.

Commands that are defined in the imported articles will be local to that article unless they have been globally defined using `\gdef` or `\global`. Since most authors use `\newcommand` and `\newenvironment` (or `\renewcommand` and `\renewenvironment`) this shouldn't cause a conflict if more than one article has defined the same command or environment. For example, in the sample files supplied, both `paper1/paper1.tex` and `paper2/paper2.tex` have defined the command `\samplecommand` using `\newcommand`. As long as this command isn't also defined in the book, there won't be a conflict.

`\title`

```
\title[PDF title]{book title}
```

In the book preamble, `\title` sets the book title and the optional argument is used for the PDF title, which will be displayed when the reader views the PDF file's properties in their PDF

viewer. (Note that in the imported articles, `\title` sets the article's title and the optional argument sets the short title for the page header and table of contents.)

`\author`

```
\author[{PDF author(s)}]{{book author(s)}}
```

In the book preamble, `\author` sets the book's author (or editor) and the optional argument is used for the PDF author, which will be displayed when the reader views the PDF file's properties in their PDF viewer. (Note that in the imported articles, `\author` sets the article's author and the optional argument sets the short author list for the page header.)

`\volume`

```
\volume{{number}}
```

This command sets the book's volume number. Omit if the book has no volume number.

`\subtitle`

```
\subtitle{{sub-title}}
```

This command sets the book's subtitle. Omit if the book has no sub-title.

`\logo`

```
\logo[{url}]{{image command}}
```

This sets the book's title image. Use `\includegraphics` and omit the file extension. If you provide a grayscale version as well as a color version, the grayscale version will be used for the print version of the book. (See Section 2.6 for further details.) The optional argument, if present, was formerly used by `makejmlrbookgui` to make the logo a link to `<url>` on the index HTML page. (The HTML pages are no longer generated by the application as PMLR now generate the HTML from the `.bib` file for the proceedings.)

`\team`

```
\team{{team title}}
```

This can be used to set the name of the editorial team. This command may be omitted if not required.

`\productioneditor`

```
\productioneditor{{name}}
```

This command may be used to name the production editor. The command may be omitted if not required.

`\jmlrlocation`

```
\jmlrlocation{{location}}
```

This specifies the workshop location. By default this doesn't appear on the title page. See Section 3.4 for details on how to modify the layout of the title page.

3.3 Main Book Commands

All commands that are provided by the `jmlr` class are also available with the `jmlrbook` class, but some commands might behave differently depending on whether they are in the main part of the book or within the imported articles.

In the main part of the book you can use the following commands:

`\maketitle`

```
\maketitle
```

This displays the book's title page. Note that `\maketitle` has a different effect when used in imported articles.

`\frontmatter`

```
\frontmatter
```

Use this command at the start of the front matter (e.g. before the foreword or preface). This will make chapters unnumbered even if you use `\chapter` instead of `\chapter*`. It also sets the page style and sets the page numbering to lower case Roman numerals.

`authorsignoff`

```
\begin{authorsignoff}
<author list>
\end{authorsignoff}
```

This environment may be used by the author signing off at the end of a chapter such as the foreword. Within the environment use:

`\Author`

```
\Author{<details>}
```

for the author's details. More than one `\Author` should be used if there is more than one author. Example:

```
\begin{authorsignoff}
\Author{Nicola Talbot\
University of East Anglia}
\Author{Anne Author\
University of No Where}
\end{authorsignoff}
```

`preface`

```
\begin{preface}[<filename>]
```

This environment may be used to typeset the preface. This starts a new chapter using

```
\chapter{\prefacename}
```

`\prefacename` where `\prefacename` defaults to “Preface”. This environment should typically go in the front matter and is provided to allow `makejmlrbookgui` create a standalone document for the preface. The optional argument is the filename (without any extension or path) that will be used by `makejmlrbookgui`. This defaults to `preface` but, to conform with PMLR guidelines, should be changed to the surname of the first author (editor) followed by the final two digits of the year. See the PMLR website for further details of the guidelines.

`signoff`

```
\begin{signoff}[\langle team name \rangle]{\langle date \rangle}
\langle editor list \rangle
\end{signoff}
```

This environment may be used by the editorial team when signing off a chapter such as the preface. If the optional argument is omitted, “The Editorial Team” is used. If you are using the preface environment described above, the `signoff` environment must go inside the preface environment.

Within the `signoff` environment use:

`\Editor`

```
\Editor{\langle details \rangle}
```

for each editor. Example:

```
\begin{signoff}{March 2010}
% First editor:
\Editor{Nicola Talbot\
University of East Anglia\
\mailto{N.Talbot@uea.ac.uk}}
% Second editor:
\Editor{Anne Editor\
University of Nowhere\
\mailto{ae@sample.com}}
\end{signoff}
```

`tableofcontents`

```
\tableofcontents
```

This command displays the book’s table of contents. Note that it has a different effect if used in an imported article.

`\mainmatter`

```
\mainmatter
```

Use this command to switch to the book’s main matter. This will switch the chapter numbering back on, reset the page numbering to Arabic and set up the main page style.

`\part`

```
\part[<short title>]{<title>}
```

If used in the main part of the book, this command will start a new part and issue a clear double page. Note that this command has a different effect if used in an imported article (or inside the `jmlrpapers` environment).

`\addtocpart`

```
\addtocpart{<title>}
```

This adds *<title>* to the table of contents, issues a clear double page, but doesn't display any text or affect the part numbering.

`\chapter`

```
\chapter[<short title>]{<title>}
```

This command may be used in the main body of the book but will cause an error if used within an imported article (or inside the `jmlrpapers` environment).

`\section`

```
\section[<short title>]{<title>}
```

`\subsection`

```
\subsection[<short title>]{<title>}
```

`\subsubsection`

```
\subsubsection[<short title>]{<title>}
```

`\paragraph`

```
\paragraph[<short title>]{<title>}
```

`\subparagraph`

```
\subparagraph[<short title>]{<title>}
```

These commands may be used in the main body of the book or within imported articles. In the main body of the book (outside of the `jmlrpapers` environment) they need to be within a chapter and will be numbered according to the chapter.

`\appendix`

```
\appendix
```

If used in the main body of the book (*outside* of the `jmlrpapers` environment) this will switch to the book appendices. Subsequent `\chapter` commands will produce the appendices.

(Any imported articles in the appendix will be identified by `makejmlrbookgui` as supplemental material.) If used within an imported article (or within the `jmlrpapers` environment) `\appendix` will switch to the article appendices and won't affect the main part of the book.

`jmlrpapers`

```
\begin{jmlrpapers}
<imported papers>
\end{jmlrpapers}
```

This environment must be used when importing articles and may be used as often as required. Take care not to include book sectioning commands, such as `\chapter`, in this environment. Within the `jmlrpapers` environment, use the following commands to import articles:

`\importpubpaper`

```
\importpubpaper[<label>]{<directory>}{<file>}{<pages>}
```

This imports an article that has already been published elsewhere. The `<pages>` argument should be the page range from the *previously published* version of this article. This may not necessarily be the same as the page range of the article in the book. The directory the imported file is contained in is given by `<directory>`. If the file is in the same directory as the book, use a dot. The file name is given by `<file>`. The article is also given a label, specified by the optional argument. This is `<directory>/<file>` by default. The label is used as a prefix to labels in the imported articles which ensures that cross-references are unique. You can also use this label to reference the article elsewhere in the book (see Section 3.3.2).

`\importpaper`

```
\importpaper[<label>]{<directory>}{<file>}
```

Imports an article that is being published in the book. The arguments are the same as above except that there is no page range (the page range is computed automatically).

`\importarticle`

```
\importarticle[<label>]{<directory>}{<file>}
```

This imports an article that hasn't been published elsewhere. There is no page range, but the other arguments are the same as those describe above for `\importpubpaper`.

Example: to import a previously published paper `paper1/paper1.tex` and an unpublished paper `paper2/paper2.tex`:

```
\begin{jmlrpapers}
\importpubpaper{paper1}{paper1}{23--45}
\importarticle{paper2}{paper2}
\end{jmlrpapers}
```

3.3.1 Two Column Articles in a One Column Book

The `jmlrbook` class `column` style will override the column style of the imported articles. You can use the `twocolumn` class option to `jmlrbook`, but this will make the whole book with two columns. If you only want the imported articles to be in two columns, then put `\twocolumn` in the `jmlrpapers` environment to switch on two column formatting. The effect will be localised to the end of the environment.

3.3.2 Cross-Referencing

You can cross-reference other parts of the book using the standard `\label/\ref` mechanism, but if you want to reference something within an imported article, you must prefix the label with the label given when importing the article (that is, the optional argument to `\importpubpaper`, `\importpaper` or `\importarticle`). For example, if you want to reference a section labelled `sec:results` in the imported paper `paper1/paper1.tex`, you would need to do:

```
see Section~\ref{paper1/paper1sec:results}
```

or

```
see \sectionref{paper1/paper1sec:results}
```

In addition to the commands described in Section 2.5.6, the `jmlrbook` class also provides the following cross-referencing commands:

`\chapterref`

```
\chapterref{<label list>}
```

Reference a chapter or chapters. The argument is a comma-separated list of labels.

`\articlepageref`

```
\articlepageref{<label>}
```

This displays the starting page number of the article whose label is given by `<label>`. Note that this must be a single label, not a list. For example:

```
An interesting article starts on page~\articlepageref{paper1/paper1}
```

`\articlepagesref`

```
\articlepagesref{<label>}
```

This displays the page range of the article whose label is given by `<label>`. Again, this must be a single label, not a list. This page range is unrelated to the `<pages>` argument of `\importpubarticle`.

`\articletitleref`

```
\articletitleref{<label>}
```

This displays the short title for the article whose label is given by $\langle label \rangle$. Again, this must be a single label, not a list.

`\articleauthorref`

```
\articleauthorref{\langle label \rangle}
```

This displays the author list for the article whose label is given by $\langle label \rangle$. Again, this must be a single label, not a list.

3.4 Altering the Layout of the Main Title Page

`\titlebody`

```
\titlebody
```

The main body of the book's title page is given by the command `\titlebody`. Within the definition of this command, you can use:

`\SetTitleElement`

```
\SetTitleElement{\langle element \rangle}{\langle pre \rangle}{\langle post \rangle}
```

where $\langle element \rangle$ can be: title, volume, issue¹, subtitle, logo, team, author, date, productioneditor. The $\langle pre \rangle$ and $\langle post \rangle$ arguments specify what to do before and after the element. Note that `\SetTitleElement` does nothing if that element hasn't been set. For example, if `\volume` has been omitted or `\volume{}` is used, then

```
\SetTitleElement{volume}{\mainvolumefont}{\postmainvolume}
```

will do nothing (so you don't end up with **Volume**!).

`\IfTitleElement`

```
\IfTitleElement{\langle element \rangle}{\langle true part \rangle}{\langle false part \rangle}
```

This does $\langle true part \rangle$ if $\langle element \rangle$ has been set otherwise it does $\langle false part \rangle$. For example, `\postmainvolume` is defined as:

```
\newcommand{\postmainvolume}{%
  \IfTitleElement{subtitle}{:}{:}\par\relax
}
```

This means that it will only print a colon after the volume number if the subtitle has been set.

The default definition of `\titlebody` is:

```
\newcommand{\titlebody}{%
  \SetTitleElement{title}{\maintitlefont}{\postmaintitle}%
  \SetTitleElement{volume}{\mainvolumefont}{\postmainvolume}%
}
```

¹The default title page layout doesn't use issue, but if required it can be set with `\issue{\langle number \rangle}`

```

\SetTitleElement{subtitle}{\mainsubtitlefont}{\postmainsubtitle}%
\SetTitleElement{logo}{\mainlogo font}{\postmainlogo}%
\SetTitleElement{team}{\mainteamfont}{\postmainteam}%
\SetTitleElement{author}{\mainauthorfont}{\postmainauthor}%
\SetTitleElement{productioneditor}{\mainproductioneditorfont}%
  {\postmainproductioneditor}%
}

```

3.5 Potential Pitfalls

The combine class and hyperref package are individually both easily broken by packages that change certain internals and they don't ordinarily work together. The jmlrbook class applies patches to the internal referencing mechanism to make them work together, but it's a fairly fragile alliance. Some packages are known to break it, for example subfig, pdfpages and geometry. This is why the jmlr class checks for known problem packages and generates an error message to dissuade authors from using them. It's likely that there are other packages that may cause a problem and, as they are found, they will be added to the check list. Also, it's possible for an author to disable the package checking mechanism if they are determined to use a particular package.

In the event that an article has loaded a problem package, the editors will have to decide whether to ask the author to change the article so that it doesn't cause a problem or to make the changes themselves or to find a way of fudging things to get it to work. It depends on the level of \LaTeX expertise amongst the editors and the time available.

Another problem that can arise is when different articles use packages that conflict. For example, one article uses package foo and another uses package bar. Each article compiles okay as a stand-alone article, but when combined foo and bar conflict. Another problem may occur when articles load the same package but with conflicting package options. To reduce the chance of this occurring, the jmlr class loads some commonly used packages. For example, it loads the algorithm2e package with the algo2e and ruled options and provides the algorithm environment in addition to algorithm2e's algorithm2e environment. Different versions of the same package can also be a problem. To help counteract the problem caused by different papers using different versions of the algorithm2e package, jmlrbook defines most of the old style commands if they don't exist.

Articles that use different input encodings can also cause a problem. For example, if one article uses utf8 and another uses latin1. If the authors have directly entered a diacritic or ligature, such as é or æ, instead of using a \LaTeX command, such as \'e or \ae, then this will cause an error on compiling the book.² The choice then is to either change all non-keyboard characters with the appropriate \LaTeX commands or to use the \inputencoding command, supplied by the inputenc package, to switch the encoding at the start of each article. One thing to watch out for are bib files that contain a mixture of encodings caused by copying and pasting from different sources. Version 0.4.2b of makejmlrbookgui provides a function to search for characters outside the range 0x20 (space) and 0x7E (tilde).

²and may also cause a problem for the editor's text editor.

Authors who use `\nonumber` within an equation environment can mess up the hyperlinks. Remove `\nonumber` and change the equation environment to `\[... \]` (or just make it a numbered equation).

If the article changes the graphics path using `\graphicspath`, `jmlrbook` won't find the graphics if the imported articles aren't in the same directory as the book.

4 The Code

4.1 jmlrutils.sty Code

Non-class dependent code. This package is automatically loaded by jmlr but may be used with other classes.

```
1 \ProvidesPackage{jmlrutils}[2022/02/09 v1.30 (NLCT)]
```

Package options:

```
fjmlrutilsmaths Determine if the maths commands should be provided.
```

```
2 \newif\ifjmlrutilsmaths
3 \jmlrutilsmathstrue
4 \DeclareOption{maths}{\jmlrutilsmathstrue}
5 \DeclareOption{nomaths}{\jmlrutilsmathsfalse}
```

Provide US synonyms

```
6 \DeclareOption{math}{\jmlrutilsmathstrue}
7 \DeclareOption{nomath}{\jmlrutilsmathsfalse}
```

```
lutilstheorems Determine if the theorem environments should be provided.
```

```
8 \newif\ifjmlrutilstheorems
9 \jmlrutilstheoremstrue
10 \DeclareOption{theorems}{\jmlrutilstheoremstrue}
11 \DeclareOption{notheorems}{\jmlrutilstheoremsfalse}
```

```
\ifjmlrcleveref Determine whether or not to load cleveref.
```

```
12 \newif\ifjmlrcleveref
13 \jmlrclevereffalse
14 \DeclareOption{cleveref}{\jmlrclevereftrue}
15 \DeclareOption{nocleveref}{\jmlrclevereffalse}
```

```
rutilssubfloats Determine if the sub-floats should be provided.
```

```
16 \newif\ifjmlrutilssubfloats
17 \jmlrutilssubfloatstrue
18 \DeclareOption{subfloats}{\jmlrutilssubfloatstrue}
19 \DeclareOption{nosubfloats}{\jmlrutilssubfloatsfalse}
20 \ProcessOptions
```

Requires etoolbox:

```
21 \RequirePackage{etoolbox}
```

If the maths commands are needed, load amsmath.

```
22 \ifjmlrutilsmaths
23   \RequirePackage{amsmath}
24 \fi
```

Check if cleveref is required. If it is and hyperref is also required (which it is if jmlrutils is being loaded by jmlr) then hyperref needs to be loaded before cleveref.

```
25 \ifjmlrcleveref
26   \ifdef\jmlrprehyperref
27     {
28       \jmlrprehyperref
29       \@ifundefined{pre@hyperref}{\@pre@hyperref\undef\@pre@hyperref}
30       \RequirePackage{hyperref}
31       \let\jmlrprehyperref\relax
32       \@ifundefined{post@hyperref}{\@post@hyperref\undef\@post@hyperref}
33     }
34   {}
35   \RequirePackage{aliascnt}
36   \RequirePackage{cleveref}
37 \fi
```

The conditional `\iftablecaptiontop` will already have been defined by the jmlr class, so only needs to be defined if not already done.

tablecaptiontop

```
38 \@ifundefined{iftablecaptiontop}
39 {\newif\iftablecaptiontop
40 \tablecaptiontoptrue}
41 {}
```

4.1.1 Cross-Referencing

Convenient macros for cross-referencing.

```
42 \newcommand*{\@jmlr@reflistsep}{, }
43 \newcommand*{\@jmlr@reflistlastsep}{ and }
44 \newcommand*{\sectionrefname}{Section}
45 \newcommand*{\sectionsrefname}{Sections}
46 \newcommand*{\equationrefname}{Equation}
47 \newcommand*{\equationsrefname}{Equations}
48 \newcommand*{\tablerefname}{Table}
49 \newcommand*{\tablesrefname}{Tables}
50 \newcommand*{\figurerefname}{Figure}
51 \newcommand*{\figuresrefname}{Figures}
52 \newcommand*{\algorithmrefname}{Algorithm}
53 \newcommand*{\algorithmsrefname}{Algorithms}
54 \newcommand*{\theoremrefname}{Theorem}
55 \newcommand*{\theoremsrefname}{Theorems}
56 \newcommand*{\lemmarefname}{Lemma}
57 \newcommand*{\lemmasrefname}{Lemmas}
58 \newcommand*{\remarkrefname}{Remark}
```

```

59 \newcommand*{\remarksrefname}{Remarks}
60 \newcommand*{\corollaryrefname}{Corollary}
61 \newcommand*{\corollarysrefname}{Corollaries}
62 \newcommand*{\definitionrefname}{Definition}
63 \newcommand*{\definitionsrefname}{Definitions}
64 \newcommand*{\conjecturerefname}{Conjecture}
65 \newcommand*{\conjecturesrefname}{Conjectures}
66 \newcommand*{\axiomrefname}{Axiom}
67 \newcommand*{\axiomsrefname}{Axioms}
68 \newcommand*{\examplerefname}{Example}
69 \newcommand*{\examplesrefname}{Examples}
70 \newcommand*{\appendixrefname}{Appendix}
71 \newcommand*{\appendixsrefname}{Appendices}
72 \newcommand*{\partrefname}{Part}
73 \newcommand*{\partsrefname}{Parts}

```

`\objectref` Cross-reference a particular structural element. The first argument is the list of labels, the second argument is a control sequence containing the singular tag, the third argument a control sequence containing the plural tag, the fourth argument is text to go before the reference number, e.g. an opening bracket, and the fifth argument is text to go after the reference number, e.g. a closing bracket.

```

74 \newrobustcmd*{\objectref}[5]{%
75   \let\@objectname\@empty
76   \def\@objectref{}%
77   \let\@prevsep\@empty
78   \@for\@thislabel:=#1\do{%
79     \toks@{\@prevsep}%
80     \protected@edef\@objectref{\@objectref\the\toks@
81       #4\ref{\@thislabel}#5}%
82     \ifx\@objectname\@empty
83       \let\@objectname#2% singular tag
84     \else
85       \let\@objectname#3% plural tag
86       \let\@prevsep\@jmlr@reflistsep
87     \fi
88   }%
89   \ifx\@objectname#3% plural tag
90     \let\@prevsep\@jmlr@reflistlastsep
91   \fi
92   \@objectname~\@objectref
93 }

```

`\sectionref`

```

94 \newcommand*{\sectionref}[1]{%
95   \objectref{#1}{\sectionrefname}{\sectionsrefname}{}}

```

`\equationref`

```

96 \newcommand*{\equationref}[1]{%
97   \objectref{#1}{\equationrefname}{\equationsrefname}()}

```

`\tableref`

```
98 \newcommand*{\tableref}[1]{%
99 \objectref{#1}{\tablerefname}{\tablesrefname}{}}}
```

`\figureref`

```
100 \newcommand*{\figureref}[1]{%
101 \objectref{#1}{\figurerefname}{\figuresrefname}{}}}
```

`\algorithmref`

```
102 \newcommand*{\algorithmref}[1]{%
103 \objectref{#1}{\algorithmrefname}{\algorithmsrefname}{}}}
```

`\theoremref`

```
104 \newcommand*{\theoremref}[1]{%
105 \objectref{#1}{\theoremrefname}{\theoremsrefname}{}}}
```

`\lemmaref`

```
106 \newcommand*{\lemmaref}[1]{%
107 \objectref{#1}{\lemmarefname}{\lemmasrefname}{}}}
```

`\remarkref`

```
108 \newcommand*{\remarkref}[1]{%
109 \objectref{#1}{\remarkrefname}{\remarksrefname}{}}}
```

`\corollaryref`

```
110 \newcommand*{\corollaryref}[1]{%
111 \objectref{#1}{\corollaryrefname}{\corollarysrefname}{}}}
```

`\definitionref`

```
112 \newcommand*{\definitionref}[1]{%
113 \objectref{#1}{\definitionrefname}{\definitionsrefname}{}}}
```

`\conjectureref`

```
114 \newcommand*{\conjectureref}[1]{%
115 \objectref{#1}{\conjecturerefname}{\conjecturesrefname}{}}}
```

`\axiomref`

```
116 \newcommand*{\axiomref}[1]{%
117 \objectref{#1}{\axiomrefname}{\axiomsrefname}{}}}
```

`\exampleref`

```
118 \newcommand*{\exampleref}[1]{%
119 \objectref{#1}{\examplerefname}{\examplesrefname}{}}}
```

`\appendixref`

```
120 \newcommand*{\appendixref}[1]{%
121 \objectref{#1}{\appendixrefname}{\appendixsrefname}{}}}
```

`\partref`

```
122 \newcommand*{\partref}[1]{%
123 \objectref{#1}{\partrefname}{\partsrefname}{-}{}}
```

4.1.2 Figures, Tables and Algorithms

`\floatconts` The first argument is the label, the second argument contains the caption (using `\caption`) and the third argument contains the contents of the float

```
124 \newcommand{\floatconts}[3]{%
125 \@ifundefined{\@cuptype conts}{\tableconts{#1}{#2}{#3}}%
126 {\csname\@cuptype conts\endcsname{#1}{#2}{#3}}%
127 }
```

`\tableconts` This will already have been defined if the `jmlr` class was loaded.

```
128 \providecommand{\tableconts}[3]{%
129 #2\label{#1}\vskip\baselineskip
130 {\centering #3\par}%
131 }
```

`\figureconts`

```
132 \newcommand{\figureconts}[3]{%
133 {\centering #3\par}%
134 \vskip\baselineskip
135 #2\label{#1}%
136 }
```

The following macro and environment assume that `algorithm2e` has been loaded (which is done by the `jmlr` class). If the `jmlrutils` package is loaded without the `jmlr` class, the `algorithm2e` package will have to be explicitly loaded.

`\algocfconts` Command used by `\floatconts` to display the caption contents.

```
137 \newcommand{\algocfconts}[3]{%
138 \jmlralgorule\par\smallskip
139 #2\label{#1}% caption and label
140 \jmlralgorule\par\smallskip
141 #3% algorithm content
142 \jmlralgorule
143 }
```

`\jmlralgorule`

```
144 \newcommand{\jmlralgorule}{\kern2pt\hrule height.8pt depth0pt\kern2pt}
```

The algorithm environment should float like a figure or table. It should use the same counter as the `algorithm2e` environment.

```
145 \newenvironment{algorithm}[1][htbp]%
146 {%
147 \ifundef{\algocf}%
148 {'algorithm2e' package is required if you want to
```

```

149 use the algorithm environment}%
150 {}%
151 \begin{algocf}[#1]%
152 \renewcommand\@makecaption[2]{%
153   \hskip\AlCapHSkip
154   \parbox[t]{\dimexpr\linewidth-\AlCapHSkip}{\algocf@captiontext{##1}{##2}}%
155 }%
156 }%
157 {%
158 \end{algocf}%
159 }

```

ifgraphicxloaded

```

160 \AtBeginDocument{%
161 \ifpackageloaded{graphicx}%
162 {\let\@jmlr@ifgraphicxloaded\@firstoftwo}%
163 {\let\@jmlr@ifgraphicxloaded\@secondoftwo}%
164 }

```

includeteximage Provide a command like `\includegraphics` that includes a file containing \LaTeX picture code (e.g. pgf).

```

165 \newcommand*\includegraphics[2] [] {%
166 \@jmlr@ifgraphicxloaded
167 {%
168 \def\Gin@req@sizes{%
169 \Gin@req@height\Gin@nat@height
170 \Gin@req@width\Gin@nat@width}%
171 \begingroup
172 \let\input@path\Gin@input@path
173 \IfFileExists{#2}%
174 {%
175 \toks@{\input{#2}}%
176 \ifstrempy{#1}
177 {}%
178 {%
179 \@tempwatrue
180 \setkeys{Gin}{#1}%
181 \Gin@esetsize
182 }%
183 \the\toks@
184 }%
185 {\@warning{File ‘#2’ not found}}%
186 \endgroup
187 }%
188 {\PackageError{jmlrutils}{'graphicx' package is required
189 if you want to use \string\includegraphics}{}}%
190 }

```

Sub floats.

```
191 \ifjmlrutilssubfloats
```

The subfig package breaks jmlrbook.cls, so define \subfig here. (This is fairly primitive.)

```
\c@subfigure Define subfigure counter:
```

```
192 \newcounter{subfigure}
193 \@addtoreset{subfigure}{figure}
```

```
\thesubfigure
```

```
194 \renewcommand*{\thesubfigure}{\alph{subfigure}}
```

```
\p@subfigure
```

```
195 \renewcommand*{\p@subfigure}{\expandafter\p@subfigure}
196 \newcommand*{\p@subfigure}[1]{%
197   \protect\@subfigurelabel{\thefigure}{\thesubfigure}%
198 }
```

The LaTeX kernel changed the definition of \refstepcounter to allow \p@... to have an argument. This means we need to check the kernel version and pick up that extra argument if present.

```
199 \@ifl@t@r\fmtversion{2019/08/22}%
200 {
```

Newer kernel versions.

```
@subfigurelabel Define how label appears.
```

```
201 \newcommand*\@subfigurelabel[3]{#1\subfigurelabel{#2}}
```

```
\@subfigref
```

```
202 \newcommand*\@subfigref[1]{%
203   {%
204     \def\@subfigurelabel##1##2##3{\subfigurelabel{##2}}%
205     \ref{#1}%
206   }%
207 }
```

```
208 }%
```

```
209 {
```

Older kernel versions.

```
@subfigurelabel Define how label appears.
```

```
210 \newcommand*\@subfigurelabel[2]{#1\subfigurelabel{#2}}
```

```
\@subfigref
```

```
211 \newcommand*\@subfigref[1]{%
212   {%
213     \def\@subfigurelabel##1##2{\subfigurelabel{##2}}%
214     \ref{#1}%
215   }%
216 }
```

217 }

`\subfigref` Reference the sub-figure without including the figure number.

```
218 \newcommand*{\subfigref}[1]{%
219   \let\@objectname\@empty
220   \def\@objectref{}%
221   \let\@prevsep\@empty
222   \@for\@thislabel:=#1\do{%
223     \toks@{\@prevsep}%
224     \protected@edef\@objectref{\@objectref\the\toks@
225       \protect\@subfigref{\@thislabel}}%
226     \ifx\@objectname\@empty
227 \let\@objectname\@nil
228   \else
229 \let\@objectname\relax
230     \let\@prevsep\@jmlr@reflistsep
231     \fi
232   }%
233   \ifx\@objectname\relax
234     \let\@prevsep\@jmlr@reflistlastsep
235   \fi
236   \@objectref
237 }
```

`\subfigurelabel`

```
238 \newcommand*{\subfigurelabel}[1]{(\emph{#1})}
```

`@subfloatcapbox` Box to store subfloat caption.

```
239 \newsavebox\@subfloatcapbox
```

`subfloatcontsbox` Box to store subfloat contents.

```
240 \newsavebox\@subfloatcontsbox
```

`subcaptionwidth` Minimum sub-caption width.

```
241 \newlength\jmlrminsubcaptionwidth
```

`\subfigure`

```
242 \newcommand*{\subfigure}[1][[]]{%
243   \bgroup
244   \def\@subfigcap{#1}%
245   \@subfigure
246   }

247 \newcommand*{\@subfigure}[2][b]{%
248   \advance\c@figure by 1\relax
249   \refstepcounter{subfigure}%
250   \sbox\@subfloatcapbox{\subfigurelabel{\thesubfigure}}%
251   \ifx\@subfigcap\@empty
252   \else
```

```

253     \space\@subfigcap
254 \fi}%
255 \sbox\@subfloatcontsbox{#2}%
256 \settowidth{\@tempdima}{\usebox\@subfloatcontsbox}%
257 \settowidth{\@tempdimb}{\usebox\@subfloatcapbox}%
258 \ifdim\@tempdimb>\@tempdima
259     \settowidth\@tempdimb{\subfigurelabel{\thesubfigure}\space}%
260     \addtolength{\@tempdima}{-\@tempdimb}%
261     \ifdim\@tempdima>\jmlrminsubcaptionwidth
262         \sbox\@subfloatcapbox{\subfigurelabel{\thesubfigure}\space
263             \parbox[t]{\@tempdima}{\@subfigcap}}%
264     \else
265         \sbox\@subfloatcapbox{\subfigurelabel{\thesubfigure}\space
266             \parbox[t]{\jmlrminsubcaptionwidth}{\@subfigcap}}%
267     \fi
268 \else
269     \ifdim\@tempdimb<\jmlrminsubcaptionwidth
270         \sbox\@subfloatcapbox{\subfigurelabel{\thesubfigure}\space
271             \parbox[t]{\jmlrminsubcaptionwidth}{\@subfigcap}}%
272     \fi
273 \fi
274 \begin{tabular}[#1]{@{}c{}}%
275 \usebox\@subfloatcontsbox\\ \usebox\@subfloatcapbox
276 \end{tabular}%
277 \egroup
278 }

```

Sub-tables:

`\c@subtable` Define subtable counter:

```

279 \newcounter{subtable}
280 \@addtoreset{subtable}{table}

```

`\thesubtable`

```

281 \renewcommand*{\thesubtable}{\alph{subtable}}

```

`\p@subtable`

```

282 \renewcommand*{\p@subtable}{\expandafter\@p@subtable}
283 \newcommand*{\@p@subtable}[1]{%
284     \protect\@subtablelabel{\thetable}{\thesubtable}%
285 }

```

As with `\@subfigure` we again need to check \LaTeX kernel version.

```

286 \@ifl@t@r\fmtversion{2019/08/22}%
287 {

```

Newer kernel versions.

`\@subtablelabel` Define how label appears.

```

288 \newcommand*\@subtablelabel[3]{#1\subtablelabel{#2}}

```

```

\@subtabref
289   \newcommand*\@subtabref [1]{%
290     {%
291       \def\@subtablelabel##1##2##3{\subtablelabel{##2}}%
292       \ref{#1}%
293     }%
294   }

295 }%
296 {

```

Older kernel versions.

```

\@subtablelabel Define how label appears.
297   \newcommand*\@subtablelabel [2]{#1\subtablelabel{#2}}

```

```

\@subtabref
298   \newcommand*\@subtabref [1]{%
299     {%
300       \def\@subtablelabel##1##2{\subtablelabel{##2}}%
301       \ref{#1}%
302     }%
303   }

304 }%

```

\subtabref Reference the sub-table without including the table number.

```

305   \newcommand*\subtabref [1]{%
306     \let\@objectname\@empty
307     \def\@objectref{}%
308     \let\@prevsep\@empty
309     \@for\@thislabel:=#1\do{%
310       \toks@{\@prevsep}%
311       \protected@edef\@objectref{\@objectref\the\toks@
312         \protect\@subtabref{\@thislabel}}%
313       \ifx\@objectname\@empty
314         \let\@objectname\@nil
315       \else
316         \let\@objectname\relax
317         \let\@prevsep\@jmlr@reflistsep
318       \fi
319     }%
320     \ifx\@objectname\relax
321       \let\@prevsep\@jmlr@reflistlastsep
322     \fi
323     \@objectref
324   }

```

```

\subtablelabel
325   \newcommand*\subtablelabel [1]{(\emph{#1})}

```

`\subtable`

```
326 \newcommand*{\subtable}[1] [] {%
327   \def\@subtabcap{#1}%
328   \@subtable
329 }

330 \newcommand*{\@subtable}[2] [t] {%
331   \refstepcounter{subtable}%
332   \sbox\@subfloatcapbox{\subtablelabel{\thesubtable}}%
333   \ifx\@subtabcap\@empty
334   \else
335     \space\@subtabcap
336   \fi}%
337   \sbox\@subfloatcontsbox{#2}%
338   \settowidth{\@tempdima}{\usebox\@subfloatcontsbox}%
339   \settowidth{\@tempdimb}{\usebox\@subfloatcapbox}%
340   \ifdim\@tempdimb>\@tempdima
341     \settowidth\@tempdimb{\subtablelabel{\thesubtable}\space}%
342     \addtolength{\@tempdima}{-\@tempdimb}%
343     \ifdim\@tempdima>\jmlrminsubcaptionwidth
344       \sbox\@subfloatcapbox{\subtablelabel{\thesubtable}\space
345         \parbox[t]{\@tempdima}{\@subtabcap}}%
346     \else
347       \sbox\@subfloatcapbox{\subtablelabel{\thesubtable}\space
348         \parbox[t]{\jmlrminsubcaptionwidth}{\@subtabcap}}%
349     \fi
350   \else
351     \ifdim\@tempdimb<\jmlrminsubcaptionwidth
352       \sbox\@subfloatcapbox{\subtablelabel{\thesubtable}\space
353         \parbox[t]{\jmlrminsubcaptionwidth}{\@subtabcap}}%
354     \fi
355   \fi
356   \begin{tabular}[#1]{@{}c@{}}%
357   \usebox\@subfloatcapbox\\ \usebox\@subfloatcontsbox
358   \end{tabular}
359 }
```

End of sub-floats.

```
360 \fi
```

4.1.3 General Markup

Provide maths command if required.

```
361 \ifjmlrutilsmaths
```

`\set`

```
362 \newcommand*{\set}[1]{\ensuremath{\mathcal{#1}}}
```

`\orgvec` Keep a copy of original `\vec` in case it's wanted.

```
363 \let\orgvec\vec
```

`\vec` Redefine `\vec` to produce a bold symbol. The `amsmath` package is required for this.

```
364 \renewcommand*{\vec}[1]{\boldsymbol{#1}}
```

End of maths commands.

```
365 \fi
```

`enumerate*` Define an `enumerate` style environment where the nested environments all use the same counter. It uses the `enumi` counter.

```
366 \newenvironment{enumerate*}%
367 {%
368   \ifnum\@enumdepth=0\relax
369     \setcounter{enumi}{0}%
370   \fi
371   \ifnum\@enumdepth>\thr@@
372     \@toodeep
373   \else
374     \advance\@enumdepth\@ne
375     \def\@enumctr{enumi}%
376     \list
377       {\labelenumi}%
378       {\@nmblisttrue\def\@listctr{enumi}%
379         \def\makelabel##1{\hss\llap{##1}}}%
380   \fi
381 }%
382 {\endlist}
```

`altdescription` Define a description like environment where the indent is computed from the widest label. The optional argument is the widest label.

```
383 \newenvironment{altdescription}[1]%
384   {\list{}}%
385   {%
386     \settowidth{\labelwidth}{\altdescriptionlabel{#1}}%
387     \setlength{\labelsep}{15pt}%
388     \setlength{\leftmargin}{2\labelsep}%
389     \addtolength{\leftmargin}{\labelwidth}%
390     \setlength{\rightmargin}{\labelsep}%
391     \let\makelabel\altdescriptionlabel
392   }%
393 }%
394 {\endlist}
395
396 \newcommand*{\altdescriptionlabel}[1]{\normalfont\bfseries #1\hfill}
```

`\mailto` Syntax: `\mailto{<address>}`

```
397 \newcommand*{\mailto}[1]{\texttt{#1}}
```

4.1.4 Proofs and Theorems

398 \ifjmlrutilstheorems

This code is taken from jmlr2e.sty

\jmlrBlackBox End of proof marker. This command was formerly called \BlackBox but has been renamed in case of a clash with symbol packages.

399 \newcommand{\jmlrBlackBox}{\rule{1.5ex}{1.5ex}}

\BlackBox Backward compatibility in case it was used explicitly.

400 \providecommand{\BlackBox}{\jmlrBlackBox}

\jmlrQED

401 \newcommand{\jmlrQED}{\hfill\jmlrBlackBox\par\bigskip}

\proofname

402 \providecommand{\proofname}{Proof}

proof Proof environment

403 \newenvironment{proof}{%

404 {%

405 \par\noindent{\bfseries\upshape \proofname \ }%

406 }%

407 {\jmlrQED}

Since theorem, ntheorem and amsthm all cause problems with the jmlr and jmlrbook classes, this package provides a simple alternative.

theorembodyfont

```
\theorembodyfont{\font declarations}
```

408 \newcommand*{\theorembodyfont}[1]{%

409 \renewcommand*{\@theorembodyfont}{#1}%

410 }

411 \newcommand*{\@theorembodyfont}{\normalfont\itshape}%

theoremheaderfont

```
\theoremheaderfont{\font declarations}
```

412 \newcommand*{\theoremheaderfont}[1]{%

413 \renewcommand*{\@theoremheaderfont}{#1}%

414 }

415 \newcommand*{\@theoremheaderfont}{\normalfont\bfseries }%

`\theoremsep`

```
\theoremsep{<separation code>}
```

```
416 \newcommand*{\theoremsep}[1]{%
417   \renewcommand*{\@theoremsep}{#1}%
418 }
419 \newcommand*{\@theoremsep}{}%
```

`\theorempostheader`

```
\theorempostheader{<text>}
```

```
420 \newcommand*{\theorempostheader}[1]{%
421   \renewcommand*{\@theorempostheader}{#1}%
422 }
423 \newcommand*{\@theorempostheader}{}%
```

`\newtheorem`

```
424 \let\jmlr@org@newtheorem\newtheorem
425 \renewcommand*{\newtheorem}{\@ifstar\jmlr@snewtheorem\jmlr@newtheorem}
```

Define starred version:

```
\newtheorem*{<env-name>}{<title tag>}
```

```
426 \newcommand*{\jmlr@snewtheorem}[2]{%
427   \cslet{jmlr@thm@#1@body@font}{\@theorembodyfont}%
428   \cslet{jmlr@thm@#1@header@font}{\@theoremheaderfont}%
429   \cslet{jmlr@thm@#1@sep}{\@theoremsep}%
430   \cslet{jmlr@thm@#1@postheader}{\@theorempostheader}%
431   \newenvironment{#1}%
432   {%
433     \trivlist
434     \item
435     [%
436       \hskip\labelsep{\csuse{jmlr@thm@#1@header@font}#2}%
437       \csuse{jmlr@thm@#1@postheader}%
438     ]%
439     ]%
440     \mbox{}{\csuse{jmlr@thm@#1@sep}}%
441     \csuse{jmlr@thm@#1@body@font}%
442   }%
443   {%
444     \endtrivlist
445   }%
446 }
```

Unstarred version needs adjusting to take the style into account:

```

\@othm
447 \newcommand{\jmlr@newtheorem}[1]{%
448   \cslet{jmlr@thm@#1@body@font}{\@theorembodyfont}%
449   \cslet{jmlr@thm@#1@header@font}{\@theoremheaderfont}%
450   \cslet{jmlr@thm@#1@sep}{\@theoremsep}%
451   \cslet{jmlr@thm@#1@postheader}{\@theorempostheader}%
452   \jmlr@org@newtheorem{#1}%
453 }

\@xthm
454 \renewcommand*{\@xthm}[2]{%
455   \def\@jmlr@currentthm{#1}%
456   \@begintheorem{#2}{\csname the#1\endcsname}%
457   \ignorespaces
458 }

\@ythm
459 \def\@ythm#1#2[#3]{%
460   \def\@jmlr@currentthm{#1}%
461   \@opargbegintheorem{#2}{\csname the#1\endcsname}{#3}%
462   \ignorespaces
463 }

\@begintheorem
464 \renewcommand*{\@begintheorem}[2]{%
465   \ifdef{\@jmlr@currentthm}%
466   {%
467     \letcs{jmlr@this@theoremheader}{jmlr@thm@\@jmlr@currentthm @header@font}%
468     \letcs{jmlr@this@theorembody}{jmlr@thm@\@jmlr@currentthm @body@font}%
469     \letcs{jmlr@this@theoremsep}{jmlr@thm@\@jmlr@currentthm @sep}%
470     \letcs{jmlr@this@theorempostheader}%
471       {jmlr@thm@\@jmlr@currentthm @postheader}%
472   }%
473   {%
474     \let\jmlr@this@theorembody\@theorembodyfont
475     \let\jmlr@this@theoremheader\@theoremheaderfont
476     \let\jmlr@this@theoremsep\@theoremsep
477     \let\jmlr@this@theorempostheader\@theorempostheader
478   }%
479   \trivlist
480     \item
481     [%
482       \hskip\labelsep{jmlr@this@theoremheader #1\ #2%
483         \jmlr@this@theorempostheader}%
484     ]%
485     \mbox{}{jmlr@this@theoremsep
486     \jmlr@this@theorembody
487   }

```

argbegintheorem

```
488 \renewcommand*{\@opargbegintheorem}[3]{%
489 \ifdef{\@jmlr@currentthm}%
490 {%
491 \letcs{\jmlr@this@theoremheader}{\jmlr@thm@\@jmlr@currentthm @header@font}%
492 \letcs{\jmlr@this@theorembody}{\jmlr@thm@\@jmlr@currentthm @body@font}%
493 \letcs{\jmlr@this@theoremsep}{\jmlr@thm@\@jmlr@currentthm @sep}%
494 \letcs{\jmlr@this@theorempostheader}{%
495 {\jmlr@thm@\@jmlr@currentthm @postheader}%
496 }%
497 {%
498 \let\jmlr@this@theorembody\@theorembodyfont
499 \let\jmlr@this@theoremheader\@theoremheaderfont
500 \let\jmlr@this@theoremsep\@theoremsep
501 \let\jmlr@this@theorempostheader\@theorempostheader
502 }%
503 \trivlist
504 \item[\hskip\labelsep{\jmlr@this@theoremheader #1\ #2\ (#3)%
505 \jmlr@this@theorempostheader}]%
506 \mbox{\jmlr@this@theoremsep}
507 \jmlr@this@theorembody
508 }
```

example

```
509 \newtheorem{example}{Example}
```

theorem

```
510 \newtheorem{theorem}{Theorem}
```

lemma

```
511 \ifjmlrcleveref
512 \newaliascnt{lemma}{theorem}
513 \newtheorem{lemma}[lemma]{Lemma}
514 \aliascntresetthe{lemma}
515 \crefname{lemma}{lemma}{lemmas}
516 \else
517 \newtheorem{lemma}[theorem]{Lemma}
518 \fi
```

proposition

```
519 \ifjmlrcleveref
520 \newaliascnt{proposition}{theorem}
521 \newtheorem{proposition}[proposition]{Proposition}
522 \aliascntresetthe{proposition}
523 \crefname{proposition}{proposition}{propositions}
524 \else
525 \newtheorem{proposition}[theorem]{Proposition}
526 \fi
```

remark

```
527 \ifjmlrcleveref
528 \newaliascnt{remark}{theorem}
529 \newtheorem{remark}[remark]{Remark}
530 \aliascntresetthe{remark}
531 \crefname{remark}{remark}{remarks}
532 \else
533 \newtheorem{remark}[theorem]{Remark}
534 \fi
```

corollary

```
535 \ifjmlrcleveref
536 \newaliascnt{corollary}{theorem}
537 \newtheorem{corollary}[corollary]{Corollary}
538 \aliascntresetthe{corollary}
539 \crefname{corollary}{corollary}{corollaries}
540 \else
541 \newtheorem{corollary}[theorem]{Corollary}
542 \fi
```

definition

```
543 \ifjmlrcleveref
544 \newaliascnt{definition}{theorem}
545 \newtheorem{definition}[definition]{Definition}
546 \aliascntresetthe{definition}
547 \crefname{definition}{definition}{definitions}
548 \else
549 \newtheorem{definition}[theorem]{Definition}
550 \fi
```

conjecture

```
551 \ifjmlrcleveref
552 \newaliascnt{conjecture}{theorem}
553 \newtheorem{conjecture}[conjecture]{Conjecture}
554 \aliascntresetthe{conjecture}
555 \crefname{conjecture}{conjecture}{conjectures}
556 \else
557 \newtheorem{conjecture}[theorem]{Conjecture}
558 \fi
```

axiom

```
559 \ifjmlrcleveref
560 \newaliascnt{axiom}{theorem}
561 \newtheorem{axiom}[axiom]{axiom}
562 \aliascntresetthe{axiom}
563 \crefname{axiom}{axiom}{axioms}
564 \else
565 \newtheorem{axiom}[theorem]{Axiom}
566 \fi
```

End of theorem definitions.

```
567 \fi
```

4.2 jmlr.cls Code

This class is based on the jmlr2e package but was modified to make sure it works with jmlr-book which uses both combine and hyperref.

Declare class and required TeX format:

```
568 \NeedsTeXFormat{LaTeX2e}
569 \ProvidesClass{jmlr}[2022/02/09 v1.30 (NLCT) Journal of Machine Learning Research]
```

Need xkeyval package to have key=value class options

```
570 \RequirePackage{xkeyval}
```

```
571 \RequirePackage{calc}
```

```
572 \RequirePackage{etoolbox}
```

Some packages need to be loaded before hyperref so provide a hook to do this:

```
jmlrprehyperref
```

```
573 \providecommand*{\jmlrprehyperref}{}
```

The following conditionals are provided to make this class play nicely with combine and aren't required for articles.

```
574 \newif\if@openright
```

```
575 \newif\if@mainmatter \@mainmattertrue
```

```
\ifgrayscale Determine whether to select grayscale alternatives
```

```
576 \@ifundefined{ifgrayscale}{
```

```
577 \newif\ifgrayscale
```

```
578 \grayscalefalse
```

```
579 }{}
```

```
580 \DeclareOptionX{color}{\grayscalefalse
```

```
581 \PassOptionsToPackage{color}{xcolor}}
```

```
582 \DeclareOptionX{gray}{\grayscaletrue
```

```
583 \PassOptionsToPackage{gray}{xcolor}}
```

```
draft
```

```
584 \DeclareOptionX{draft}{\PassOptionsToClass{\CurrentOption}{article}}
```

```
final
```

```
585 \DeclareOptionX{final}{\PassOptionsToClass{\CurrentOption}{article}}
```

Can't load jmlrutils here but need the \iftablecaptiontop conditional for the class options.

```
tablecaptiontop
```

```
586 \newif\iftablecaptiontop
```

```
587 \tablecaptiontoptrue
```

Provide table contents command that uses this conditional. (The jmlrutils package doesn't use it.)

```
\tablecnts
588 \newcommand{\tablecnts}[3]{%
589   \iftablecaptiontop
590     #2\label{#1}\vskip\baselineskip
591     {\centering #3\par}%
592   \else
593     {\centering #3\par}%
594     \vskip\baselineskip
595     #2\label{#1}%
596   \fi
597 }
```

Determine if the table captions should go at the top.

```
tablecaptiontop
598 \DeclareOptionX{tablecaptiontop}{\tablecaptiontoptrue}
```

```
tablecaptiontop
599 \DeclareOptionX{tablecaptionbottom}{\tablecaptiontopfalse}
```

```
tablecaption Key=value interface.
600 \define@choicekey{jmlr.cls}{tablecaption}[\val\nr]{top,bottom}{%
601   \ifcase\nr\relax
602     \tablecaptiontoptrue
603   \or
604     \tablecaptiontopfalse
605   \fi
606 }
```

`\ifjmlrhtml` Determine if we are using TeX4ht. (Deprecated.) This option should no longer be used. The PMLR have changed the submission guidelines and the production editor should no longer supply HTML files.

```
607 \newif\ifjmlrhtml
608 \jmlrhtmlfalse
609 \DeclareOptionX{html}{%
610   \ClassWarning{jmlr}{html option is now deprecated}%
611   \jmlrhtmltrue}
612 \DeclareOptionX{nohtml}{\jmlrhtmlfalse}
```

Normal font size (default is 11pt).

```
613 \def\pt@size{11pt}
614 \DeclareOptionX{10pt}{\renewcommand{\pt@size}{10pt}}
615 \DeclareOptionX{11pt}{\renewcommand{\pt@size}{11pt}}
616 \DeclareOptionX{12pt}{\renewcommand{\pt@size}{12pt}}
```

```

jmlrproceedings The name of the proceedings.
617 \newcommand*{\@jmlrproceedings}{Journal of Machine Learning Research}

abbrvproceedings The abbreviated name of the proceedings.
618 \newcommand*{\@jmlrabbrvproceedings}{JMLR}

jmlrproceedings Sets the title and abbreviation of the proceedings
619 \newcommand*{\jmlrproceedings}[2]{%
620 \renewcommand*{\@jmlrabbrvproceedings}{#1}%
621 \renewcommand*{\@jmlrproceedings}{#2}%
622 }

\jmlrnowcp
623 \newcommand*{\jmlrnowcp}{%
624 \jmlrproceedings{JMLR}{Journal of Machine Learning Research}%
625 }

\jmlrwcp
626 \newcommand*{\jmlrwcp}{%
627 \jmlrproceedings{JMLR W&CP}{JMLR: Workshop and Conference Proceedings}%
628 }

\jmlrpmlr The JMLR W&CP has been renamed PMLR, so provide code to switch to this instead,
629 \newcommand*{\jmlrpmlr}{%
630 \jmlrproceedings{PMLR}{Proceedings of Machine Learning Research}%
631 }

This is a journal (non JMLR W&CP/PMLR) article:
632 \DeclareOptionX{nowcp}{\jmlrnowcp}
This is an article for JMLR W&CP
633 \DeclareOptionX{wcp}{\jmlrwcp}
This is an article for PMLR
634 \DeclareOptionX{pmlr}{\jmlrpmlr}
Pass cleveref option to jmlrutils
635 \DeclareOptionX{cleveref}{\PassOptionsToPackage{cleveref}{jmlrutils}}

oneside
636 \DeclareOptionX{oneside}{\@twosidefalse \mparswitchfalse}

twoside
637 \DeclareOptionX{twoside}{\@twosidetrue \mparswitchtrue}

Set two-sided format
638 \@twosidetrue

```

The default paper size is letter, but provide 7 × 10in alternative:

```
639 \newif\ifviiXx
640 \viiXxfalse
641 \DeclareOptionX{7x10}{\viiXxtrue}
642 \DeclareOptionX{letterpaper}{\PassOptionsToPackage{letterpaper}{typearea}}
```

Pass all remaining options to article class:

```
643 \DeclareOptionX*{\PassOptionsToClass{\CurrentOption}{article}}
```

Execute required options:

```
644 \ExecuteOptions{letterpaper}
```

Process options:

```
645 \ProcessOptionsX
```

If two-sided, pass that to article as well:

```
646 \if@twoside
647 \PassOptionsToClass{twoside}{article}
648 \fi
```

Load article class.

```
649 \LoadClass[\pt@size]{article}
```

Can't use geometry package because it doesn't play nicely with the combine class.

```
650 \ifviiXx
651 \setlength{\paperwidth}{7in}
652 \setlength{\paperheight}{10in}
653 \setlength{\textwidth}{5.25in}
654 \setlength{\textheight}{8.2in}
655 \setlength{\topmargin}{0.4in}
656 \setlength{\headheight}{0.2in}
657 \setlength{\headsep}{0.2in}
658 \setlength{\hoffset}{-1in}
659 \setlength{\voffset}{-1in}
660 \setlength{\evensidemargin}{0.75in}
661 \setlength{\oddsidemargin}{1.0in}
662 \else
663 \setlength{\oddsidemargin}{0.25in}
664 \setlength{\evensidemargin}{0.25in}
665 \setlength{\marginparwidth}{0.07 true in}
666 \setlength{\topmargin}{-0.5in}
667 \addtolength{\headsep}{0.25in}
668 \setlength{\textheight}{8.5 true in}
669 \setlength{\textwidth}{6.0 true in}
670 \fi
```

Need to add jmlr end document hook before natbib adds a \clearpage to it.

```
671 \AtEndDocument{\@jmlrenddoc}
```

Need placeins to add float barrier at the end of the article.

```
672 \RequirePackage{placeins}
```

Required packages:

```
673 \RequirePackage{amsmath}
674 \RequirePackage{amssymb}
675 \RequirePackage{natbib}
676 \RequirePackage{graphicx}
677 \RequirePackage{url}
678 \PassOptionsToPackage{x11names}{xcolor}
679 \RequirePackage{xcolor}
```

Allow old command names in the event that the proceedings contains a mixture of papers that use old and new versions. (This means that editors need to install the newer version.) For some reason, loading algorithm2e causes the message

```
(\end occurred inside a group at level 1)
```

I don't know why, but it's outside the control of this class.

```
680 \PassOptionsToPackage{algo2e,ruled}{algorithm2e}
681 \RequirePackage{algorithm2e}
```

Set the algorithm margin to zero.

```
682 \setlength\algomargin{0pt}
```

Load jmlrutils before hyperref.

```
683 \RequirePackage{jmlrutils}
```

Do all the stuff that needs to be done before hyperref is loaded:

```
684 \jmlrprehyperref
```

Do stuff that has to come immediately before hyperref is loaded:

```
685 \@ifundefined{@pre@hyperref}{}{\@pre@hyperref}
```

Load hyperref:

```
686 \RequirePackage{hyperref}
687 \RequirePackage{nameref}
```

```
688 % Do stuff that has to come immediately after \sty{hyperref} and
```

```
689 % \sty{nameref} are loaded:
```

```
690 %\changes{1.16}{2012/05/15}{added \cs{@post@hyperref}}
```

```
691 \@ifundefined{@post@hyperref}{}{\@post@hyperref}
```

Set up hyperref options:

```
692 \hypersetup{colorlinks,
693             linkcolor=blue,
694             citecolor=blue,
695             urlcolor=magenta,
696             linktocpage,
697             plainpages=false}
```

```
698 \ifgrayscale
```

If this is the print version, need to disable the hyperlinks:

```
699 \hypersetup{draft}
700 \fi
```

Float parameters: the following settings were copied from jmlr2e.sty

```
701 \renewcommand{\topfraction}{0.95} % let figure take up nearly whole page
702 \renewcommand{\textfraction}{0.05} % let figure take up nearly whole page
```

widows/orphans

```
703 \widowpenalty=10000\relax
```

```
704 \clubpenalty=10000\relax
```

Put marginal notes on the outside of the page

```
705 \@mparswitchtrue
```

Use the plainnat bibliography style and set up the required punctuation.

```
706 \bibliographystyle{plainnat}
```

```
707 \bibpunct{{}{}}{,}{a}{,}{,}{,}
```

4.2.1 Sections

`\section`

```
708 \renewcommand{\section}{\@startsection{section}{1}{\z@}%
```

```
709   {-0.24in \@plus -1ex \@minus -.2ex}%
```

```
710   {0.10in \@plus .2ex}%
```

```
711   {\normalfont\rmfamily\bfseries\large\raggedright}%
```

```
712 }
```

`\subsection`

```
713 \renewcommand\subsection{\@startsection{subsection}{2}{\z@}%
```

```
714   {-0.20in \@plus -1ex \@minus -.2ex}%
```

```
715   {0.08in \@plus .2ex}%
```

```
716   {\normalfont\rmfamily\bfseries\normalsize\raggedright}%
```

```
717 }
```

`\subsubsection`

```
718 \renewcommand\subsubsection{\@startsection{subsubsection}{3}{\z@}%
```

```
719   {-0.18in \@plus -1ex \@minus -.2ex}%
```

```
720   {0.08in \@plus .2ex}%
```

```
721   {\normalfont\normalsize\rmfamily\mdseries\scshape\raggedright}%
```

```
722 }
```

`\paragraph`

```
723 \renewcommand\paragraph{\@startsection{paragraph}{4}{\z@}%
```

```
724   {1.5ex plus 0.5ex minus .2ex}%
```

```
725   {-1em}%
```

```
726   {\normalfont\normalsize\rmfamily\bfseries}%
```

```
727 }
```

`\subparagraph`

```
728 \renewcommand\subparagraph{\@startsection{subparagraph}{5}{\z@}%
```

```
729   {1.5ex plus 0.5ex minus .2ex}%
```

```
730   {-1em}%
```

```
731   {\normalfont\normalsize\rmfamily\bfseries\itshape}}
```

`\@secCNTformat` Redefine the way the section number appears in the section heading.

```
732 \renewcommand*\@secCNTformat[1]{%
733   \csname pre#1num\endcsname
734   \csname the#1\endcsname.\enskip
735 }
```

4.2.2 Footnotes

`\@makefnText` Redefine `\@makefnText` so that the text between the footnote symbol and the footnote text can be redefined. (It looks odd having a full stop after a symbol.)

```
736 \renewcommand*\@makefnText[1]{%
737   \@setpar
738   {%
739     \@@par
740     \@tempdima\hsize
741     \advance \@tempdima -15pt\relax
742     \parshape \@ne 15pt \@tempdima
743   }%
744   \par
745   \parindent 2em\noindent
746   \hbox to \z@ {\hss {\@thefnmark }\footnoteseptext\hfil }#1%
747 }
```

`footnoteseptext` The separation text between the footnote symbol and the footnote text.

```
748 \newcommand*\footnoteseptext{. }
```

`\thanks` Added optional argument to `\footnotetext` as per <http://tex.stackexchange.com/questions/229295>.

```
749 \renewcommand*\thanks[1]{%
750   \refstepcounter{mpfootnote}%
751   \footnotemark[\number\value{mpfootnote}]%
752   \xappto\@thanks{\noexpand\footnotetext[\number\value{mpfootnote}]{#1}}%
753 }
```

4.2.3 Article abstract

This code has been taken from `jmlr2e.sty` but with `\bf` updated to `\bfseries`

`abstract`

```
754 \ifjmlrhtml
755   \renewenvironment{abstract}{\HCode{<h3>}Abstract\HCode{</h3>}}{%
756   \else
757     \renewenvironment{abstract}
758     {{{\centering\large\bfseries Abstract\par}\vspace{0.7ex}%
759     \bgroup
760     \leftskip 20pt\rightskip 20pt\small\noindent\ignorespaces}%
761     {\par\egroup\vskip 0.25ex}
762 \fi
```

4.2.4 Keywords

This code has been taken from `jmlr2e.sty` but with `\bf` updated to `\bfseries`.

keywords

```
763 \newenvironment{keywords}
764 {\bgroup\leftskip 20pt\rightskip 20pt \small\noindent{\bfseries
765 Keywords:} \ignorespaces}%
766 {\par\egroup\vskip 0.25ex}
```

4.2.5 Title Page Information

This code has been taken from `jmlr2e.sty`.

Title stuff, borrowed in part from `aaai92.sty`

```
767 \newlength\aftertitskip \newlength\beforetitskip
768 \newlength\interauthorskip \newlength\aftermaketitskip
```

Changeable parameters.

```
769 \setlength\aftertitskip{0.1in plus 0.2in minus 0.2in}
770 \setlength\beforetitskip{0.05in plus 0.08in minus 0.08in}
771 \setlength\interauthorskip{0.08in plus 0.1in minus 0.1in}
772 \setlength\aftermaketitskip{0.3in plus 0.1in minus 0.1in}
```

`\titlebreak` Acts like new line in the paper title, but with `jmlrbook` acts like a space in the table of contents and bookmarks.

```
773 \newcommand*\titlebreak{\newline}
```

`\titletag`

```
774 \newcommand*\titletag[1]{}
```

`\title` Override definition of `\title` to allow for an optional argument (short title)

```
775 \renewcommand*\title[2] [\@title]{%
776 \def\@shorttitle{#1}%
777 \def\@title{#2}%
778 \protected@write\@auxout{\string\jmlr@title{#1}{#2}}%
779 \jmlrtitlehook
780 }
```

`\@shorttitle` The short title of the document is initialised to `\jobname` to ensure a basic document will compile even if no title is set.

```
781 \newcommand*\@shorttitle{\jobname}
```

`\jmlrtitlehook`

```
782 \newcommand*\jmlrtitlehook{}
```

`\jmlr@title` AUX command provided for `MakeJmlrBookGUI`

```
783 \newcommand*\jmlr@title[2]{}
```

`\author` Override definition of `\author` to allow for an optional argument (list of authors for page heading)

```
784 \renewcommand*{\author}[2] [] {%
785   \def\@author{#2}%
786   \def\@sauthor{#1}%
787   \def\@jmlr@aux@author{#2}\@onelevel@sanitize\@jmlr@aux@author
788   \ifx\@sauthor\@empty
789     \let\@jmlr@aux@sauthor\@jmlr@aux@author
790   \else
791     \let\@shortauthor\@sauthor
792     \def\@jmlr@aux@sauthor{#1}\@onelevel@sanitize\@jmlr@aux@sauthor
793   \fi
794   \jmlrauthorhook
795   \protected@write\@auxout
796     {}{\string\jmlr@author{\@jmlr@aux@sauthor}{\@jmlr@aux@author}}%
797 }
```

`\jmlrauthorhook`

```
798 \newcommand*{\jmlrauthorhook}{}
```

`\jmlr@author` AUX command provided for MakeJmlrBookGUI

```
799 \newcommand*{\jmlr@author}[2] {}
```

`\@shortauthor`

```
800 \newcommand*{\@shortauthor}{}
```

`\@firstauthor`

```
801 \newcommand*{\@firstauthor}{}
```

`\@firstsurname`

```
802 \newcommand*{\@firstsurname}{}
```

`\jmlrlength`

```
803 \newlength\jmlrlength
```

`\jmlrmaketitle` Make the title

```
804 \def\jmlrmaketitle{%
805   \jmlrpremaketitlehook
806   \def\@jmlr@authors@sep{, }%
807   \par
808   \begingroup

809   \def\footnotesep{ }%
810   \def\thempfn{\textsuperscript{\thefootnote}}%
811   \def\thefootnote{\fnsymbol{footnote}}%
```

```

812 \if@twocolumn
813 \twocolumn[\@jmlrmaketitle]%
814 \else
815 \@jmlrmaketitle
816 \fi
817 \@thanks
818 \endgroup
819 \label{jmlrstart}%
820 \ifx\@sauthor\@empty
821 \settowidth{\jmlrlength}{\@evenhead}%
822 \ifdim\jmlrlength>\textwidth
823 \def\@shortauthor{\@firstsurname\space et al.}%
824 \fi
825 \fi
826 \settowidth{\jmlrlength}{\@titlefoot}%
827 \ifdim\jmlrlength>\textwidth
828 \def\@jmlrauthors{\@firstauthor\space \emph{et al}}%
829 \fi
830 \jmlrmaketitlehook
831 \thispagestyle{jmlrtps}%
832 \setcounter{footnote}{0}%
833 \let\maketitle\relax \let\@maketitle\relax
834 \gdef\@thanks{}\gdef\@author{}\let\thanks\@gobble
835 \def\@jmlr@authors@sep{ \& }%
836 }

```

lrmaketitlehook

```
837 \newcommand*\@jmlrmaketitlehook{}
```

remaketitlehook

```
838 \newcommand*\@jmlrpremaketitlehook{}
```

Provide a different title layout for HTML

lhtmlmaketitle

```

839 \newcommand{\jmlrhtmlmaketitle}{%
840 \ifx\@jmlr@authors\@empty
841 \sbox\jmlrbox{\let\addr\relax\@author}%
842 \fi
843 \noindent\HCode{<h2>}\@title\HCode{</h2>}
844 \noindent\@jmlr@authors
845 }

```

\jmlrbox Define a save box

```
846 \newsavebox\jmlrbox
```

\maketitle If we're creating HTML, set \maketitle to \jmlrhtmlmaketitle, otherwise set it to \jmlrmaketitle

```

847 \ifjmlrhtml
848 \let\maketitle\jmlrhtmlmaketitle

```

```

849 \else
850 \let\maketitle\jmlrmaketitle
851 \fi

```

Author and editor information.

```

852 \def\@startauthor{\noindent \normalsize\bfseries}
853 \def\@endauthor{}
854 \def\@starteditor{\noindent \small {\bfseries \@edname:~}}
855 \def\@endeditor{\normalsize}

```

Provide hooks to make it easier to adapted with combine class.

\jmlrprettitle

```

856 \def\jmlrprettitle{\vskip\beforetitskip\begin{center}\Large\bfseries}

```

\jmlrposttitle

```

857 \def\jmlrposttitle{\par\end{center}\vskip\aftertitskip}

```

\nametag

```

858 \newcommand*{\nametag}[1]{}

```

\jmlrpreauthor

```

859 \def\jmlrpreauthor{%
860 \bgroup
861 \def\nametag##1{##1}%
862 \def\and{\unskip\enspace{\normalfont and}\enspace}%
863 \def\addr{\mdseries\small\itshape}%
864 \def\name{\ClassError{jmlr}{Use \string\Name{Author's Name} not \string\name}{}}%
865 \def\email{\ClassError{jmlr}{Use \string\Email{address} not \string\email}{}}%
866 \def\AND{\@endauthor\normalfont\hss \vskip \interauthorskip
867 \startauthor}%
868 \@startauthor
869 }

```

\addr Initialise to do nothing if used outside of \author

```

870 \newcommand{\addr}{}

```

\@email

```

871 \def\@email{\hfill\small\mdseries\scshape}%

```

\@name

```

872 \def\@name{\normalsize\upshape\bfseries}%

```

\@parsename Parse a name. Appends forename to \@forenames and stores surname in \@surname.

```

873 \def\@parsename#1 #2\end@parsename{%
874 \def\@tmp{#2}%
875 \ifx\@tmp\@nnil
876 \def\@surname{#1}%

```

```

877 \let\@nextparsename\@parsenamenoop
878 \else
879 \@getinitial#1-\relax\relax\end@getinitial
880 \ifx\@forenames\@empty
881 \def\@forenames{#1}%
882 \protected@edef\@initials{\@initial}%
883 \else
884 \expandafter\toks@\expandafter{\@forenames}%
885 \edef\@forenames{\space\the\toks@}%
886 \expandafter\toks@\expandafter{\@initials}%
887 \protected@edef\@initials{\the\toks@\@initial}%
888 \fi
889 \let\@nextparsename\@parsename
890 \fi
891 \@nextparsename#2\end@parsename
892 }
893 \def\@parsenamenoop#1\end@parsename{}

```

\@getinitial

```

894 \def\@getinitial#1#2-#3#4\end@getinitial{%
895 \def\@jmlr@tmp{#3}%
896 \if\@jmlr@tmp\relax
897 \def\@initial{#1.}%
898 \else
899 \def\@initial{#1.-#3.}%
900 \fi
901 }

```

\Name Get the author's name and add surname to \@shortauthors. (Surnames with “von” parts or with spaces in should be enclosed in braces)

```

902 \newcommand*{\Name}[2][ ]{%
903 \def\@authorlist{#1}%
904 \def\@forenames{}%
905 \def\@surname{}%
906 \def\@nametag##1{%
907 \@parsename#2 \@nil\end@parsename
908 \ifx\@shortauthor\@empty
909 \ifx\@sauthor\@empty
910 \global\let\@shortauthor\@surname
911 \global\let\@firstsurname\@surname
912 \fi
913 \ifx\@authorlist\@empty
914 \protected@xdef\@jmlrauthors{\@initials\space\@surname}%
915 \else
916 \protected@xdef\@jmlrauthors{\@authorlist}%
917 \fi
918 \global\let\@firstauthor\@jmlrauthors
919 \else
920 \ifx\@sauthor\@empty

```

```

921     \expandafter\toks@\expandafter{\@shortauthor}%
922     \protected@xdef\@shortauthor{\the\toks@\space\@surname}%
923 \fi
924 \ifx\@authorlist\@empty
925     \ifx\@jmlrauthors\@empty
926         \protected@xdef\@jmlrauthors{\@initials\space\@surname}%
927     \else
928         \protected@xdef\@jmlrauthors{\@jmlrauthors
929             \noexpand\@jmlr@authors@sep
930             \@initials\space\@surname}%
931     \fi
932 \else
933     \ifx\@jmlrauthors\@empty
934         \protected@xdef\@jmlrauthors{\@authorlist}%
935     \else
936         \protected@xdef\@jmlrauthors{\@jmlrauthors
937             \noexpand\@jmlr@authors@sep
938             \@authorlist
939         }%
940     \fi
941 \fi
942 \fi
943 \def\nametag##1{##1}%
944 \@name #2%
945 }

```

`jmlrabbrnamelist` Display list of names in abbreviated form. (Mainly designed for use with `makejmlrbook` for the preface authors.) The author should be grouped if the name contains a comma.

```

946 \newcommand*{\jmlrabbrnamelist}[1]{%
947     \def\nametag##1{%
948         \def\@jmlr@authors@sep{, }%
949         \def\@jmlr@namelist{%
950             \@for\@thisname:=#1\do{%
951                 \expandafter\@jmlrabbrname\expandafter{\@thisname}%
952                 \ifx\@jmlr@namelist\@empty
953                     \protected@edef\@jmlr@namelist{%
954                         \@initials\space\@surname
955                     }%
956                 \else
957                     \protected@edef\@jmlr@namelist{%
958                         \@jmlr@namelist
959                         \noexpand\@jmlr@authors@sep
960                         \@initials\space\@surname
961                     }%
962                 \fi
963             }%
964         \def\@jmlr@authors@sep{ \& }%
965         \@jmlr@namelist
966     }

```

`\@jmlrabbrname`

```
967 \newcommand*{\@jmlrabbrname}[1]{%
968   \def\@initials{}%
969   \def\@surname{}%
970   \def\@forenames{}%
971   \@parsename#1 \@nil\end@parsename
972 }
```

`\Email`

```
973 \newcommand*{\Email}[1]{\@email #1}}
```

`\jmlrpostauthor`

```
974 \def\jmlrpostauthor{\@endauthor\egroup
975   \par
976   \vskip \aftermaketitskip
977   \noindent
978   \ifx\@editor\@empty
979   \else
980     \@starteditor \@editor \@endeditor
981   \fi
982   \vskip \aftermaketitskip
983 }
```

`\@jmlrmaketitle` This used to enclose the title in a `\vbox` but this caused a problem for extremely long author/affiliation lists that spanned multiple pages, so the `\vbox` has been removed (in v1.26), but the grouping has been retained.

```
984 \def\@jmlrmaketitle{%
985   {%
986     \jmlrprettitle
987     {%
988       \def\titletag##1{##1}%
989       \@title
990     }%
991     \jmlrposttitle
```

Use `\ignorespaces` before `\@author` in case a space has been inserted at the start of `\author`. May occur with a long author list that's been spaced for clarity, but less likely to occur with `\title`. Trailing spaces are less likely to be noticeable.

```
992   \jmlrpreauthor \ignorespaces\@author \jmlrpostauthor
993   }%
994 }
```

`\kernelmachines` Convenience command

```
995 \newcommand*\kernelmachines{(for
996   {\textsc{http://www.kernel-machines.org}})}
```

`\editorname` Label for the editor

```
997 \newcommand*{\editorname}{Editor}
```

`\editorsname` Label for the editor
998 `\newcommand*{\editorsname}{Editors}`

`\@edname` This will either be Editor or Editors depending on whether `\editor` or `\editors` is used.
Defaults to `\editorname`
999 `\let\@edname\editorname`

`\@editor` The editor or editors are stored in `\@editor`
1000 `\def\@editor{}`

`\editor` A single editor
1001 `\def\editor#1{%`
1002 `\global\let\@edname\editorname`
1003 `\gdef\@editor{#1}%`
1004 `}`

`\editors` Multiple editors
1005 `\def\editors#1{%`
1006 `\global\let\@edname\editorsname`
1007 `\gdef\@editor{#1}%`
1008 `}`

4.2.6 Pagestyles

This is taken from `jmlr2e.sty`

`\firstpageno` Set the page counter.
1009 `\def\firstpageno#1{\setcounter{page}{#1}}`

`\startpage` If `\startpage` has been defined, use its value for the first page.
1010 `\@ifundefined{startpage}{}{\firstpageno{\startpage}}`

Label end page.

`\@jmlrenddoc` Label end page
1011 `\newcommand*{\@jmlrenddoc}{%`
1012 `\FloatBarrier`
1013 `\phantomsection`
1014 `\protected@edef\@currentlabelname{end of \@shorttitle}%`
1015 `\label{jmlrend}\null`
1016 `\global\let\@reprint\@empty`
1017 `}`

`\@titlefoot`
1018 `\newcommand*{\@titlefoot}{\scriptsize\copyright\space\@jmlryear`
1019 `\space\@jmlr@authors.\hfill`
1020 `\@reprint`
1021 `}`

\reprint

```
1022 \let\@reprint\@empty
1023 \newcommand{\reprint}[1]{%
1024 \gdef\@reprint{Reprinted with permission for JMLR#1}}
```

\ps@jmlrtps Title page style

```
1025 \newcommand\ps@jmlrtps{%
1026 \let\@mkboth\@gobbletwo
1027 \def\@oddhead{\scriptsize \@jmlrproceedings
1028 \ifx\@jmlrvolume\@empty
1029 \else
1030 \space\@jmlrvolume
1031 \ifx\@jmlrissue\@empty\else(\@jmlrissue)\fi
1032 \ifx\@jmlrpages\@empty
1033 \ifx\@jmlryear\@empty
1034 \else
1035 \if\@jmlrissue\@empty,\fi
1036 \fi
1037 \else
1038 :%
1039 \fi
1040 \fi
1041 \ifx\@jmlrpages\@empty
1042 \else
1043 \ifx\@jmlrvolume\@empty\space\fi
1044 \@jmlrpages
1045 \ifx\@jmlryear\@empty\else,\fi
1046 \fi
1047 \ifx\@jmlryear\@empty\else\space\@jmlryear\fi
1048 \hfill
1049 \ifx\@jmlrworkshop\@empty
1050 \ifx\@jmlrsubmitted\@empty
1051 \else
1052 Submitted \@jmlrsubmitted
1053 \ifx\@jmlrpublished\@empty\else;\fi
1054 \fi
1055 \ifx\@jmlrpublished\@empty
1056 \else
1057 \space Published \@jmlrpublished
1058 \fi
1059 \else
1060 \space\@jmlrworkshop
1061 \fi
1062 }%
1063 \let\@evenhead\@oddhead
1064 \def\@oddfoot{\@titlefoot}%
1065 \let\@evenfoot\@oddfoot
1066 }
```

`\ps@jmlrps` Page style for subsequent pages

```
1067 \def\ps@jmlrps{%
1068   \let\mkboth\gobbletwo
1069   \def\@oddhead{\hfill {\small\scshape \@shorttitle} \hfill}%
1070   \def\@oddfoot{\hfill \small\rmfamily \thepage \hfill}%
1071   \def\@evenhead{\hfill {\small\scshape \@shortauthor} \hfill}%
1072   \def\@evenfoot{\hfill \small\rmfamily \thepage \hfill}%
1073 }%
```

Set the page style:

```
1074 \pagestyle{jmlrps}
```

Set the heading information:

`\@jmlrvolume` The volume number:

```
1075 \providecommand*\@jmlrvolume{}
```

`\jmlrvolume`

```
1076 \newcommand*\@jmlrvolume[1]{\renewcommand*\@jmlrvolume{#1}}
```

`\@jmlrissue` The issue number:

```
1077 \providecommand*\@jmlrissue{}
```

`\jmlrissue`

```
1078 \newcommand*\@jmlrissue[1]{\renewcommand*\@jmlrissue{#1}}
```

`\@jmlryear` The year of publication:

```
1079 \providecommand*\@jmlryear{}
```

`\jmlryear`

```
1080 \newcommand*\@jmlryear[1]{\renewcommand*\@jmlryear{#1}}
```

`\@jmlrpages` The page range:

```
1081 \providecommand*\@jmlrpages{\pageref{jmlrstart}--\pageref{jmlrend}}
```

`\jmlrpages`

```
1082 \newcommand*\@jmlrpages[1]{\renewcommand*\@jmlrpages{#1}}
```

`\@jmlrsubmitted` The date the article was submitted:

```
1083 \providecommand*\@jmlrsubmitted{}
```

`\jmlrsubmitted`

```
1084 \newcommand*\@jmlrsubmitted[1]{\renewcommand*\@jmlrsubmitted{#1}}
```

`\@jmlrpublished` The date the article was published:

```
1085 \providecommand*\@jmlrpublished{}
```

```

\jmlrpublished
1086 \newcommand*\jmlrpublished[1]{\renewcommand*\@jmlrpublished{#1}}

\@jmlrworkshop The name of the workshop:
1087 \providecommand*\@jmlrworkshop{}

\jmlrworkshop
1088 \newcommand*\jmlrworkshop[1]{%
1089 \renewcommand*\@jmlrworkshop{#1}%
1090 \protected@write\@auxout{}\string\jmlr@workshop{#1}}%
1091 }

\jmlr@workshop
1092 \newcommand*\jmlr@workshop[1]{%

\date
1093 \renewcommand*\date[1]{%
1094 \renewcommand*\@date{#1}%
1095 \protected@write\@auxout{}\string\jmlr@date{#1}}%
1096 }

\jmlr@date
1097 \newcommand*\jmlr@date[1]{%

\@jmlrauthors
1098 \newcommand*\@jmlrauthors{}

\@jmlr@authors
1099 \newcommand*\@jmlr@authors{\@jmlrauthors}

\jmlrauthors This is provided in case \Name doesn't set \@jmlrauthors correctly.
1100 \newcommand*\jmlrauthors[1]{\global\def\@jmlr@authors{#1}}

```

4.2.7 Miscellany

This code was taken from jmlr2e.sty.

Define macros for figure captions and table titles

```

1101 \def\figurecaption#1#2{\noindent\hangindent 40pt
1102 \hbox to 36pt {\small\slshape #1 \hfil}
1103 \ignorespaces {\small #2}}

```

Figurecenter prints the caption title centered.

```

1104 \def\figurecenter#1#2{\centerline{{\slshape #1} #2}}
1105 \def\figurecenter#1#2{\centerline{{\small\slshape #1} {\small #2}}}

```

Allow “hanging indents” in long captions

`\@makecaption`

```
1106 \long\def\@makecaption#1#2{%
1107   \vskip 10pt
1108   \setbox\@tempboxa\hbox{#1: #2}%
1109   \ifdim \wd\@tempboxa >\hsize           % IF longer than one line:
1110     \begin{list}{#1:}{%
1111       \settowidth{\labelwidth}{#1:}
1112       \setlength{\leftmargin}{\labelwidth}
1113       \addtolength{\leftmargin}{\labelsep}
1114       }\item #2 \end{list}\par % Output in quote mode
1115   \else                                     % ELSE center.
1116     \hbox to\hsize{\hfil\box\@tempboxa\hfil}
1117   \fi}
```

Define strut macros for skipping spaces above and below text in a tabular environment.

```
1118 \def\abovestrut#1{\rule[0in]{0in}{#1}\ignorespaces}
1119 \def\belowstrut#1{\rule[-#1]{0in}{#1}\ignorespaces}
```

`\acks` Acknowledgements

```
1120 \newcommand{\acks}[1]{\section*{Acknowledgments}#1}
```

Research Note

`\researchnote`

```
1121 \newcommand{\researchnote}[1]{\noindent {\LARGE\itshape Research Note} #1}
```

Other macros now moved to `jmlrutils`.

`\ifprint` Provide command to check if this is the printed greyscale version or the online colour version.

```
1122 \providecommand{\ifprint}[2]{\ifgrayscale#1\else#2\fi}
```

Modify `\includegraphics` so that it can pick up the greyscale version of images if this is the print version. (Extension shouldn't be specified.)

```
1123 \ifjmlrhtml
1124 \else
1125   \let\@org@Ginclude@graphics\Ginclude@graphics
```

Since graphics 2019/07/01, the file name parsing has changed to allow for UTF-8 characters. So provide patches for the old and new versions and work out which one to use.

`\include@graphics` This is a patched version of the old `\Ginclude@graphics`.

```
1126 \def\@jmlr@old@Ginclude@graphics#1{%
1127   \begingroup
1128   \let\input@path\Ginput@path
1129   \ifprint{\filename@parse{#1-gray}}{\filename@parse{#1}}%
1130   \ifx\filename@ext\relax
1131     \@for\Gin@temp:=\Gin@extensions\do{%
1132       \ifx\Gin@ext\relax
1133         \Gin@getbase\Gin@temp
```

```

1134     \fi}%
1135 \else
1136     \ifprint{\filename@parse{#1}}{}%
1137     \Gin@getbase{\Gin@sepdefault\filename@ext}%
1138     \ifx\Gin@ext\relax
1139         \@warning{File '#1' not found}%
1140         \def\Gin@base{\filename@area\filename@base}%
1141         \edef\Gin@ext{\Gin@sepdefault\filename@ext}%
1142     \fi
1143 \fi
1144 \ifx\Gin@ext\relax
1145     \ifprint{\@org@Gininclude@graphics{#1}}%
1146     {%
1147         \@latex@error{File '#1' not found}%
1148         {I could not locate the file with any of these extensions:^^J%
1149         \Gin@extensions^^J\@ehc}%
1150     }%
1151 \else
1152     \@ifundefined{Gin@rule@\Gin@ext}%
1153     {\ifx\Gin@rule@*\@undefined
1154         \@latex@error{Unknown graphics extension: \Gin@ext}\@ehc
1155     \else
1156         \expandafter\Gin@setfile\Gin@rule@*{\Gin@base\Gin@ext}%
1157         \fi}%
1158     {\expandafter\expandafter\expandafter\Gin@setfile
1159         \csname Gin@rule@\Gin@ext\endcsname{\Gin@base\Gin@ext}}%
1160 \fi
1161 \endgroup}

```

nclude@graphics This is a patch of the new version.

```

1162 \def\@jmlr@new@Gininclude@graphics#1{%
1163     \ifx\detokenize\@undefined\else
1164         \edef\Gin@extensions{\detokenize\expandafter{\Gin@extensions}}%
1165     \fi
1166 \begingroup
1167 \let\input@path\Gininput@path
1168 \ifprint{\set@curr@file{#1-gray}}{\set@curr@file{#1}}%
1169 \expandafter\filename@parse\expandafter{\@curr@file}%
1170 \ifx\filename@ext\Gin@gzext
1171     \expandafter\filename@parse\expandafter{\filename@base}%
1172     \ifx\filename@ext\relax
1173         \let\filename@ext\Gin@gzext
1174     \else
1175         \edef\Gin@ext{\Gin@ext\Gin@sepdefault\Gin@gzext}%
1176     \fi
1177 \fi
1178 \let\@jmlr@filename@ext\filename@ext
1179 \ifx\filename@ext\relax
1180     \@for\Gin@temp:=\Gin@extensions\do{%

```

```

1181     \ifx\Gin@ext\relax
1182         \Gin@getbase\Gin@temp
1183     \fi}%
1184 \ifprint
1185 {\ifx\Gin@ext\relax
1186     \set@curr@file{#1}%
1187     \expandafter\filename@parse\expandafter{\@curr@file}%
1188     \ifx\filename@ext\Gin@gzext
1189         \expandafter\filename@parse\expandafter{\filename@base}%
1190     \ifx\filename@ext\relax
1191         \let\filename@ext\Gin@gzext
1192     \else
1193         \edef\Gin@ext{\Gin@ext\Gin@sepdefault\Gin@gzext}%
1194     \fi
1195 \fi
1196 \let\@jmlr@filename@ext\filename@ext
1197 \ifx\filename@ext\relax
1198 \@for\Gin@temp:=\Gin@extensions\do{%
1199     \ifx\Gin@ext\relax
1200         \Gin@getbase\Gin@temp
1201     \fi}%
1202 \fi
1203 \fi-{}%
1204 \fi
1205 \ifx\@jmlr@filename@ext\relax
1206 \else
1207     \Gin@getbase{\Gin@sepdefault\filename@ext}%
1208     \ifx\Gin@ext\relax
1209         \let\Gin@savdbase\filename@base
1210         \let\Gin@savdext\filename@ext
1211         \edef\filename@base{\filename@base\Gin@sepdefault\filename@ext}%
1212         \let\filename@ext\relax
1213         \@for\Gin@temp:=\Gin@extensions\do{%
1214             \ifx\Gin@ext\relax
1215                 \Gin@getbase\Gin@temp
1216             \fi}%
1217         \ifx\Gin@ext\relax
1218             \let\filename@base\Gin@savdbase
1219             \let\filename@ext\Gin@savdext
1220         \fi
1221     \fi
1222     \ifx\Gin@ext\relax
1223         \@warning{File '#1' not found}%
1224         \def\Gin@base{\filename@area\filename@base}%
1225         \edef\Gin@ext{\Gin@sepdefault\filename@ext}%
1226     \fi
1227 \fi
1228 \ifx\Gin@ext\relax
1229     \@latex@error{File '#1' not found}%

```

```

1230     {I could not locate the file with any of these extensions:^^J%
1231     \Gin@extensions^^J\@ehc}%
1232 \else
1233     \@ifundefined{Gin@rule@\Gin@ext}%
1234     {\ifx\Gin@rule@\@undefined
1235     \latex@error{Unknown graphics extension: \Gin@ext}\@ehc
1236     \else
1237     \expandafter\Gin@setfile\Gin@rule*{\Gin@base\Gin@ext}%
1238     \fi}%
1239     {\expandafter\expandafter\expandafter\Gin@setfile
1240     \csname Gin@rule@\Gin@ext\endcsname{\Gin@base\Gin@ext}}%
1241 \fi
1242 \endgroup
1243 }

```

Determine which one to use:

```

1244 \@ifpackagelater{graphics}{2019/07/01}
1245 {\let\Gin@include@graphics\@jmlr@new@Gin@include@graphics}%
1246 {\let\Gin@include@graphics\@jmlr@old@Gin@include@graphics}%
1247 \fi

```

`\artappendix` Switch to appendices in an article

```

1248 \newcommand{\artappendix}{\par
1249 \setcounter{section}{0}
1250 \setcounter{subsection}{0}
1251 \def\thesection{\Alph{section}}

1252 \def\theHsection{\theHchapter.\Alph{section}}
1253 \def\presectionnum{Appendix~}%
1254 }

```

The default assumes a stand-alone article.

`\appendix`

```

1255 \let\appendix\artappendix

```

`\booklinebreak` Provided for book production editors to fine tune the book line breaking. Does nothing in the standalone article.

```

1256 \newcommand{\booklinebreak}[1][{}]{

```

4.2.8 Compatibility with combine.cls

Define chapters to make this class play nicely with combine. These definitions are just copied from book.cls

```

1257 \newcounter{chapter}
1258 \renewcommand\thechapter{\@arabic\c@chapter}
1259 \newcommand\@chapapp{\chaptername}

```

Add sections to the chapter reset.

```
1260 \@addtoreset{section}{chapter}
```

`\chaptermark`

```
1261 \newcommand*\chaptermark[1] {}
```

Chapters should only be defined when we're combining documents into a book.

`\bookchapter`

```
1262 \newcommand\bookchapter{%
1263   \if@openright\cleardoublepage\else\clearpage\fi
1264   \thispagestyle{plain}%
1265   \global\@topnum\z@
1266   \@afterindentfalse
1267   \secdef\@chapter\@schapter}
```

`\artchapter` Disable chapters for articles.

```
1268 \newcommand\artchapter{%
1269   \ClassError{jmlr}{Chapters not permitted in articles}{}}
```

`\chapter` The default assumes a stand-alone document.

```
1270 \let\chapter\artchapter
```

Label for the chapter entries in the toc.

```
1271 \def\@chaptoclabel{chapter}
```

`\@chapter` Numbered chapters

```
1272 \def\@chapter[#1]#2{\ifnum \c@secnumdepth >\m@ne
1273   \refstepcounter{chapter}%
1274   \if@mainmatter
1275     \typeout{\@chapapp\space\thechapter.}%
1276     \addcontentsline{toc}{\@chaptoclabel}%
1277     {\protect\numberline{\thechapter}#1}%
1278   \else
1279     \addcontentsline{toc}{\@chaptoclabel}{#1}%
1280   \fi
1281 \else
1282   \addcontentsline{toc}{\@chaptoclabel}{#1}%
1283 \fi
1284 \chaptermark{#1}%
1285 \addtocontents{lof}{\protect\addvspace{10\p@}}%
1286 \addtocontents{lot}{\protect\addvspace{10\p@}}%
1287 \if@twocolumn
1288   \@topnewpage[\@makechapterhead{#2}]%
1289 \else
1290   \@makechapterhead{#2}%
1291   \@afterheading
1292 \fi}
```

```

ptertitleformat  Formats the chapter title
1293 \newcommand{\chaptertitleformat}[1]{%
1294   \Huge\bfseries#1%
1295 }

ternumberformat  Formats the chapter number
1296 \newcommand{\chapternumberformat}[1]{%
1297   \huge\bfseries \@chapapp\space#1\par\nobreak
1298   \vskip 20\p@
1299 }

\chapterformat  Overall format for chapter headings
1300 \newcommand*{\chapterformat}{\raggedright}

postchapterskip  Vertical gap after chapter heading
1301 \newlength\postchapterskip
1302 \setlength\postchapterskip{40pt}

\prechapterskip  Vertical gap before chapter heading
1303 \newlength\prechapterskip
1304 \setlength\prechapterskip{50pt}

makechapterhead  Chapter heading for numbered chapters
1305 \def\@makechapterhead#1{%
1306   \null\vskip\prechapterskip
1307   {\parindent \z@ \normalfont\chapterformat
1308     \ifnum \c@secnumdepth >\m@ne
1309       \if@mainmatter
1310         \chapternumberformat{\thechapter}%
1311         \fi
1312       \fi
1313       \interlinepenalty\@M
1314       \chaptertitleformat{#1}\par\nobreak
1315       \vskip \postchapterskip
1316   }}

\@schapter  Unnumbered chapters.
1317 \def\@schapter#1{\if@twocolumn
1318   \topnewpage[\@makeschapterhead{#1}]%
1319   \else
1320     \@makeschapterhead{#1}%
1321     \@afterheading
1322   \fi}

makeschapterhead  Layout for unnumbered chapter headings
1323 \def\@makeschapterhead#1{%
1324   \vspace*{\prechapterskip}%
1325   {\parindent \z@

```

```

1326 \normalfont\chapterformat
1327 \interlinepenalty\@M
1328 \chaptertitleformat{#1}\par\nobreak
1329 \vskip \postchapterskip
1330 }}

```

`\l@chapter` Format for chapter entry in toc

```

1331 \newcommand*\l@chapter[2]{%
1332 \ifnum \c@tocdepth >\m@ne
1333 \addpenalty{-\@highpenalty}%
1334 \vskip 1.0em \@plus\p@
1335 \setlength\@tempdima{1.5em}%
1336 \begingroup
1337 \parindent \z@ \rightskip \@pnumwidth
1338 \parfillskip -\@pnumwidth
1339 \leavevmode \large\bfseries
1340 \advance\leftskip\@tempdima
1341 \hskip -\leftskip
1342 #1\nobreak\hfil \nobreak\hb@xt@\@pnumwidth{\hss #2}\par
1343 \penalty\@highpenalty
1344 \endgroup
1345 \fi}

```

`\l@appendix` Make appendix entries in the toc the same as that for chapters by default

```

1346 \let\l@appendix\l@chapter

```

`\chaptername`

```

1347 \newcommand\chaptername{Chapter}

```

`\frontmatter` Start the front matter (in book)

```

1348 \newcommand\frontmatter{%
1349 \cleardoublepage
1350 \@mainmatterfalse
1351 \renewcommand*{\theHchapter}{front-\thechapter}%
1352 \pagenumbering{roman}%
1353 \morefrontmatter
1354 }
1355 \newcommand\morefrontmatter{}

```

`\mainmatter` Start the main matter (in book)

```

1356 \newcommand\mainmatter{%
1357 \cleardoublepage
1358 \@mainmattertrue
1359 \setcounter{chapter}{0}%
1360 \renewcommand*{\theHchapter}{\thechapter}%
1361 \pagenumbering{arabic}%
1362 \moremainmatter
1363 }
1364 \newcommand\moremainmatter{}

```

`\backmatter` Start the back matter (in book)

```
1365 \newcommand\backmatter{%
1366   \if@openright
1367     \cleardoublepage
1368   \else
1369     \clearpage
1370   \fi
1371   \@mainmatterfalse}
```

`booktocpreamble`

```
1372 \newcommand*\booktocpreamble{}
```

`booktocpostamble`

```
1373 \newcommand*\booktocpostamble{}
```

`tableofcontents` This is for the main table of contents when using the combine class file, and is not for use in individual articles.

```
1374 \newcommand\booktableofcontents{%
1375   \if@twocolumn
1376     \@restonecoltrue\onecolumn
1377   \else
1378     \@restonecolfalse
1379   \fi
1380   \chapter*\contentsname
1381   \@mkboth{\MakeUppercase\contentsname}{\MakeUppercase\contentsname}}%
1382   \booktocpreamble
1383   \@starttoc{toc}%
1384   \booktocpostamble
1385   \if@restonecol
1386     \twocolumn
1387   \else
1388     \clearpage
1389   \fi
1390   \@mkboth{}{}%
1391 }
```

`tableofcontents` Table of contents for individual articles.

```
1392 \let\arttableofcontents\tableofcontents
```

`\artpart` A part in an article

```
1393 \newcommand{\artpart}{%
1394   \def\toclevel@part{0}%
1395   \if@noskipsec \leavevmode\fi
1396   \par
1397   \addvspace{4ex}%
1398   \@afterindentfalse
1399   \secdef\artpart\artpart}
```

```

1400 }
1401 \let\@artpart\@part
1402 \let\@sartpart\@spart

```

`\bookpart` A part in a book forming a collection of articles

```

1403 \newcommand\bookpart{%
1404   \def\toclevel@part{-1}%
1405   \if@openright
1406     \cleardoublepage
1407   \else
1408     \clearpage
1409   \fi
1410   \thispagestyle{plain}%
1411   \if@twocolumn
1412     \onecolumn
1413     \@tempwattrue
1414   \else
1415     \@tempwafalse
1416   \fi
1417   \preparthook
1418   \secdef\@bookpart\@sbookpart}

```

`parttitleformat` Format of the title for a part (in a book)

```

1419 \newcommand{\parttitleformat}[1]{%
1420   \Huge\bfseries#1%
1421 }

```

Part labels

```

1422 \newcommand*{\@parttoclabel}{part}

```

`\@partapp`

```

1423 \def\@partapp{\partname}

```

`partnumberformat` Format of the part number (in a book)

```

1424 \newcommand{\partnumberformat}[1]{%
1425   \Huge\bfseries \@partapp\nobreakspace#1\par\nobreak
1426   \vskip 20\p@
1427 }

```

`\preparthook` Hook at the start of a part (in a book)

```

1428 \newcommand{\preparthook}{\null\vfil}

```

`\partformat` Overall format of part

```

1429 \newcommand*{\partformat}{\centering}

```

`\@bookpart` Numbered book part format

```

1430 \def\@bookpart[#1]#2{%

```

```

1431 \ifnum \c@secnumdepth >-2\relax
1432   \refstepcounter{part}%
1433   \addcontentsline{toc}{\@parttoclabel}{\protect\numberline{\thepart}#1}%
1434 \else
1435   \addcontentsline{toc}{\@parttoclabel}{#1}%
1436 \fi
1437 \markboth{}{}%
1438 {\interlinepenalty \@M
1439  \normalfont\partformat
1440  \ifnum \c@secnumdepth >-2\relax
1441   \partnumberformat{\thepart}%
1442  \fi
1443  \parttitleformat{#2}\par}%
1444 \postparthook}

```

`\@sbookpart` Unnumbered book part format

```

1445 \def\@sbookpart#1{%
1446   {\interlinepenalty \@M
1447    \normalfont\partformat
1448    \parttitleformat{#1}\par}%
1449   \postparthook}

```

`\postparthook` Hook after part heading

```

1450 \def\postparthook{\vfil\newpage
1451   \if@twoside
1452   \if@openright
1453   \null
1454   \thispagestyle{empty}%
1455   \newpage
1456   \fi
1457   \fi
1458   \if@tempwa
1459   \twocolumn
1460   \fi}

```

`\bookappendix` Switch to appendices in book

```

1461 \newcommand\bookappendix{\par
1462  \setcounter{table}{0}%
1463  \setcounter{figure}{0}%
1464  \zeroextracounters
1465  \par
1466  \gdef\theHchapter{\Alph {chapter}}%
1467  \xdef\Hy@chapapp{\Hy@appendixstring}%
1468  \setcounter{chapter}{0}%
1469  \setcounter{section}{0}%
1470  \gdef\@chapapp{\appendixname}%
1471  \gdef\thechapter{\@Alph\c@chapter}%
1472  \def\@write@jmlr@import{\@write@jmlr@apdimport}%
1473  \csname appendixmore\endcsname

```

1474 }

Define commands to switch between book/article modes

jmlrbookcommands Switch to book commands

```
1475 \newcommand*{\jmlrbookcommands}{%
1476   \let\part\bookpart
1477   \let\chapter\bookchapter
1478   \let\appendix\bookappendix
1479   \let\tableofcontents\booktableofcontents
1480   \def\thesection{\thechapter.\arabic{section}}%
1481 }
```

jmlrarticlecommands Switch to article commands

```
1482 \newcommand*{\jmlrarticlecommands}{%
1483   \let\part\artpart
1484   \let\chapter\artchapter
1485   \let\appendix\artappendix
1486   \let\tableofcontents\arttableofcontents
1487   \def\thesection{\arabic{section}}%
1488 }
```

Check for packages that are known to cause problems when combining articles into a book. Since jmlrbook is now deprecated some errors can be converted to warnings, which are suppressed by default.

jmlr@check@warn

```
1489 \newcommand*{\@jmlr@check@warn}[1]{}
```

@check@packages

```
1490 \newcommand*{\@jmlr@check@packages}{%
1491   \@ifpackageloaded{epsfig}{%
1492     \ClassError{jmlr}{Obsolete package ‘epsfig’ detected.
1493     \MessageBreak
1494     Please use \string\includegraphics\space to include images
1495     instead}}}{}%
1496   \@ifpackageloaded{psfig}{%
1497     \ClassError{jmlr}{Obsolete package ‘psfig’ detected.
1498     \MessageBreak
1499     Please use \string\includegraphics\space to include images
1500     instead}}}{}%
1501   \@ifpackageloaded{subfig}{%
1502     \@jmlr@check@warn{Package ‘subfig’ detected.\MessageBreak
1503     This will cause a conflict if the article is incorporated
1504     \MessageBreak
1505     into a book using jmlbook.cls.
1506     \MessageBreak
1507     Please use \string\subfigure\space and
1508     \string\subtable\space instead}}}{%
```

```

1509 \@ifpackageloaded{theorem}{%
1510   \ClassError{jmlr}{Package ‘theorem’ detected.\MessageBreak
1511     This can cause a conflict with other packages used by jmlr}{-}{-}%
1512 \@ifpackageloaded{ntheorem}{%
1513   \ClassError{jmlr}{Package ‘ntheorem’ detected.\MessageBreak
1514     This can cause a conflict with other packages used by jmlr}{-}{-}%
1515 \@ifpackageloaded{amsthm}{%
1516   \ClassError{jmlr}{Package ‘amsthm’ detected.\MessageBreak
1517     This package conflicts with the jmlr class}{-}{-}%
1518 \@ifpackageloaded{pdfpages}{%
1519   {\@jmlr@check@warn{Package ‘pdfpages’ detected.\MessageBreak
1520     This can cause a problem for jmlrbook}}{-}{-}%
1521 \@ifpackageloaded{geometry}{%
1522   {\@jmlr@check@warn{Package ‘geometry’ detected.\MessageBreak
1523     This can cause a problem for jmlrbook}}{-}{-}%
1524 \@ifpackageloaded{tabularx}{%
1525   \ClassError{jmlr}{Package ‘tabularx’ detected.\MessageBreak
1526     This will break footnote links}{-}{-}%

1527 \@ifpackageloaded{jmlr2e}{%
1528   \ClassError{jmlr}{Package ‘jmlr2e’ detected.\MessageBreak
1529     This can’t be used with the jmlr class}{-}{-}%
1530 }
1531 \AtBeginDocument{%
1532 \@jmlr@check@packages
1533 \let\@jmlr@check@packages\relax
1534 }

```

ssPackageChecks Don't check for potentially problematic packages.

```

1535 \newcommand*{\jmlrSuppressPackageChecks}{%
1536   \let\@jmlr@check@packages\relax
1537 }

```

Discourage authors from using obsolete commands:

\obsoletefontcs

```

1538 \DeclareRobustCommand*{\obsoletefontcs}[1]{%
1539   \ClassWarning{jmlr}{Obsolete command
1540     \expandafter\string\csname#1\endcsname\space detected}%
1541   \csname #1 \endcsname
1542 }

```

\bf

```

1543 \renewcommand*{\bf}{%
1544   \obsoletefontcs{bf}%
1545 }

```

\it

```

1546 \renewcommand*{\it}{%

```

```

1547 \obsoletefontcs{it}%
1548 }

```

`\sc`

```

1549 \renewcommand*{\sc}{%
1550 \obsoletefontcs{sc}%
1551 }

```

`\rm`

```

1552 \renewcommand*{\rm}{%
1553 \obsoletefontcs{rm}%
1554 }

```

`\sf`

```

1555 \renewcommand*{\sf}{%
1556 \obsoletefontcs{sf}%
1557 }

```

`\tt`

```

1558 \renewcommand*{\tt}{%
1559 \obsoletefontcs{tt}%
1560 }

```

`ckforpseudocode` Check for pseudocode package since it conflicts with the algorithm package and quite often both packages are used in the same book or proceedings.

```

1561 \providecommand*{\jmlrcheckforpseudocode}{%
1562 \@ifpackageloaded{pseudocode}%
1563 {%
1564 \let\pseudoRETURN\RETURN
1565 \let\pseudoTRUE\TRUE
1566 \let\pseudoFALSE\FALSE
1567 \let\pseudoAND\AND
1568 \let\pseudoOR\OR
1569 \let\pseudoNOT\NOT
1570 \let\pseudoTO\TO
1571 \let\pseudoCOMMENT\COMMENT
1572 \let\pseudoIF\IF
1573 \let\pseudoELSE\ELSE
1574 \let\pseudoFOR\FOR
1575 \let\pseudoFORALL\FORALL
1576 \let\pseudoWHILE\WHILE
1577 \let\pseudoREPEAT\REPEAT
1578 \let\pseudoUNTIL\UNTIL
1579 \let\pseudoENDFOR\ENDFOR
1580 \let\RETURN\undefined
1581 \let\TRUE\undefined
1582 \let\FALSE\undefined
1583 \let\AND\undefined

```

```

1584 \let\OR\undefined
1585 \let\NOT\undefined
1586 \let\TO\undefined
1587 \let\COMMENT\undefined
1588 \let\IF\undefined
1589 \let\ELSE\undefined
1590 \let\FOR\undefined
1591 \let\FORALL\undefined
1592 \let\WHILE\undefined
1593 \let\REPEAT\undefined
1594 \let\UNTIL\undefined
1595 \let\ENDFOR\undefined
1596 \preto\pseudocode{%
1597 \let\RETURN\pseudoRETURN
1598 \let\TRUE\pseudoTRUE
1599 \let\FALSE\pseudoFALSE
1600 \let\AND\pseudoAND
1601 \let\OR\pseudoOR
1602 \let\NOT\pseudoNOT
1603 \let\TO\pseudoTO
1604 \let\COMMENT\pseudoCOMMENT
1605 \let\IF\pseudoIF
1606 \let\ELSE\pseudoELSE
1607 \let\FOR\pseudoFOR
1608 \let\FORALL\pseudoFORALL
1609 \let\WHILE\pseudoWHILE
1610 \let\REPEAT\pseudoREPEAT
1611 \let\UNTIL\pseudoUNTIL
1612 \let\ENDFOR\pseudoENDFOR
1613 }%
1614 }%
1615 {}%
1616 }
1617 \jmlrcheckforpseudocode

```

4.3 jmlrbook.cls Code

Class file for books composed of articles using the jmlr class.

```
1618 \NeedsTeXFormat{LaTeX2e}
```

Declare class:

```
1619 \ProvidesClass{jmlrbook}[2022/02/09 v1.30 (NLCT) JMLR Book Style]
```

Need xkeyval package to have key=value class options

```
1620 \RequirePackage{xkeyval}
```

Requires double spacing for the title page

```
1621 \RequirePackage{setspace}
```

Path used to determine if the preface is in the main document or in a separate file.

jmlrprefacefile

```
1622 \newcommand*\jmlrprefacepath{}
```

The fink package is now deprecated, so only use it if currfile isn't installed.

```
1623 \IfFileExists{currfile.sty}%
```

```
1624 {
```

```
1625   \RequirePackage{currfile}
```

```
1626   \renewcommand*\jmlrprefacepath{\currfilepath}
```

```
1627 }%
```

```
1628 {%
```

```
1629   \RequirePackage{fink}
```

```
1630   \ifdef\finkpath
```

```
1631   {%
```

```
1632     \renewcommand*\jmlrprefacepath{\finkpath}%
```

```
1633   }
```

```
1634   {%
```

fink version too old.

```
1635   \ClassWarning{jmlrbook}{'currfile' package required}
```

```
1636 }
```

```
1637 }
```

Some packages need to be loaded before hyperref so provide a hook to do this:

```
1638 \providecommand*\jmlrprehyperref{}
```

\ifgrayscale Determine whether to select color or grayscale

```
1639 \newif\ifgrayscale
```

```
1640 \grayscalefalse
```

draft

```
1641 \DeclareOptionX{draft}{\setlength\overfullrule{5pt}}
```

final

```
1642 \DeclareOptionX{final}{\setlength\overfullrule{0pt}}
```

color

```
1643 \DeclareOptionX{color}{\grayscalefalse}
```

gray

```
1644 \DeclareOptionX{gray}{\grayscaletrue}
```

Pass letterpaper and 7x10 to jmlr.

letterpaper

```
1645 \DeclareOptionX{letterpaper}{\PassOptionsToClass{\CurrentOption}{jmlr}}
```

7x10

```
1646 \DeclareOptionX{7x10}{\PassOptionsToClass{\CurrentOption}{jmlr}}
```

Pass html and nohtml to jmlr. (Used by makejmlrbookgui)

html

```
1647 \DeclareOptionX{html}{\PassOptionsToClass{\CurrentOption}{jmlr}}
```

nohtml

```
1648 \DeclareOptionX{nohtml}{\PassOptionsToClass{\CurrentOption}{jmlr}}
```

lmprefaceheader

```
1649 \newcommand*{\jmlrprefaceheader}{%  
1650   \phantomsection  
1651   \chapter*{\prefacename}%  
1652   \addcontentsline{toc}{chapter}{\prefacename}%  
1653   \markboth{\prefacename}{\prefacename}%  
1654 }
```

Pass wcp, pmlr and nowcp options to jmlr and set preface header.

wcp

```
1655 \DeclareOptionX{wcp}{%  
1656   \PassOptionsToClass{\CurrentOption}{jmlr}%  
1657 }
```

pmlr

```
1658 \DeclareOptionX{pmlr}{%  
1659   \PassOptionsToClass{\CurrentOption}{jmlr}%  
1660 }
```

nowcp

```
1661 \DeclareOptionX{nowcp}{%  
1662   \PassOptionsToClass{\CurrentOption}{jmlr}%  
1663 }
```

Pass tablecaptiontop and tablecaptionbottom options to jmlr.

tablecaptiontop

```
1664 \DeclareOptionX{tablecaptiontop}{\PassOptionsToClass{\CurrentOption}{jmlr}}
```

tablecaptionbottom

```
1665 \DeclareOptionX{tablecaptionbottom}{\PassOptionsToClass{\CurrentOption}{jmlr}}
```

Pass font size commands to jmlr

10pt

```
1666 \DeclareOptionX{10pt}{\PassOptionsToClass{\CurrentOption}{jmlr}}
```

11pt

```
1667 \DeclareOptionX{11pt}{\PassOptionsToClass{\CurrentOption}{jmlr}}
```

12pt

```
1668 \DeclareOptionX{12pt}{\PassOptionsToClass{\CurrentOption}{jmlr}}
```

Switch on two-side mode by default

```
1669 \@twosidetrue
```

oneside

```
1670 \DeclareOptionX{oneside}{\PassOptionsToClass{\CurrentOption}{jmlr}}
```

twoside

```
1671 \DeclareOptionX{twoside}{\PassOptionsToClass{\CurrentOption}{jmlr}}
```

pdfxa

```
1672 \define@boolkey{jmlrbook.cls}[jmlr]{pdfxa}[true]{}
```

```
1673 \jmlrpdfxafalse
```

Process options

```
1674 \ProcessOptionsX
```

If `\jmlrgrayscale` has been defined, let it override the class options. If it is defined, it should be set to 0 for the online version and any other number for the grayscale print version.

```
1675 \@ifundefined{jmlrgrayscale}{}%
```

```
1676 {%
```

```
1677   \ifnum\jmlrgrayscale=0\relax
```

```
1678     \grayscalefalse
```

```
1679   \else
```

```
1680     \grayscaletrue
```

```
1681   \fi
```

```
1682 }
```

This next bit is a modification of pdfx. It's only used for the print version when the pdfxa option is used.

```
1683 \ifgrayscale
```

```
1684   \newcommand*{\jmlrwritepdfinfo}{%
```

```
1685     \protected@write\auxout{}{\string\jmlrbook@info{\xmpAuthor}{\xmpTitle}}%
```

```
1686   }
```

```
1687 \ifjmlrpdfxa
```

```
1688   \def\convertDate{\getYear}
```

```
1689   {\catcode'\D=12
```

```
1690     \gdef\getYear D:#1#2#3#4{\edef\xYear{#1#2#3#4}\getMonth}
```

```
1691   }
```

```
1692   \def\getMonth#1#2{\edef\xMonth{#1#2}\getDay}
```

```
1693   \def\getDay#1#2{\edef\xDay{#1#2}\getHour}
```

```
1694   \def\getHour#1#2{\edef\xHour{#1#2}\getMin}
```

```
1695   \def\getMin#1#2{\edef\xMin{#1#2}\getSec}
```

```
1696   \def\getSec#1#2{\edef\xSec{#1#2}\getTZh}
```

```
1697   {%
```

```
1698     \catcode'\Z=12
```

```
1699     \gdef\tmpz{Z}
```

```

1700 }
1701 \def\hash{\expandafter\@gobble\string\#}%
1702 \def\amp{\expandafter\@gobble\string\&}%
1703 \def\xmpAmp{\amp\hash x0026;}%
1704 \def\sep{</rdf:li><rdf:li>}
1705 \def\TextCopyright{\amp\hash x00A9;}
1706 \def\Title#1{\gdef\xmpTitle{#1}}
1707 \def\Author#1{\gdef\xmpAuthor{#1}}
1708 \def\Keywords#1{\gdef\xmpKeywords{#1}}
1709 \let\xmpKeywords\@empty
1710 \let\xmpSubject\xmpKeywords
1711 \def\Creator#1{\gdef\xmpCreator{#1}}
1712 \def\xmpCreator{\@pdfcreator}
1713 \def\Producer#1{\gdef\xmpProducer{#1}}
1714 \def\xmpProducer{pdfTeX}
1715 \def\Volume#1{\gdef\xmpVolume{#1}}
1716 \let\xmpVolume\@empty
1717 \def\Issue#1{\gdef\xmpIssue{#1}}
1718 \let\xmpIssue\@empty
1719 \def\CoverDisplayDate#1{\gdef\xmpCoverDisplayDate{#1}}
1720 \let\xmpCoverDisplayDate\@empty
1721 \def\CoverDate#1{\gdef\xmpCoverDate{#1}}
1722 \let\xmpCoverDate\@empty
1723 \def\Copyright#1{\gdef\xmpCopyright{#1}}
1724 \let\xmpCopyright\@empty
1725 \def\Doi#1{\gdef\xmpDoi{#1}}
1726 \let\xmpDoi\@empty
1727 \def\Lastpage#1{\gdef\xmpLastpage{#1}}
1728 \let\xmpLastpage\@empty
1729 \def\Firstpage#1{\gdef\xmpFirstpage{#1}}
1730 \let\xmpFirstpage\@empty
1731 \def\Journaltitle#1{\gdef\xmpJournaltitle{#1}}
1732 \let\xmpJournaltitle\@empty
1733 \def\Journalnumber#1{\gdef\xmpJournalnumber{#1}}
1734 \let\xmpJournalnumber\@empty
1735 \def\Org#1{\gdef\xmpOrg{#1}}
1736 \let\xmpOrg\@empty
1737 \def\CreatorTool#1{\gdef\xmpCreatorTool{#1}}
1738 \def\xmpCreatorTool{\xmpProducer}
1739 \def\AuthoritativeDomain#1{\gdef\xmpAuthoritativeDomain{#1}}
1740 \let\xmpAuthoritativeDomain\@empty
1741 \def\findUUID#1{\edef\tmpstring{\pdfmdfivesum{#1}}
1742 \expandafter\eightofnine\tmpstring\end}
1743 \def\eightofnine#1#2#3#4#5#6#7#8#9\end{%
1744 \xdef\eightchars{#1#2#3#4#5#6#7#8}
1745 \fouroffive#9\end}
1746 \def\fouroffive#1#2#3#4#5\end{\xdef\ffourchars{#1#2#3#4}
1747 \sfouroffive#5\end}
1748 \def\sfouroffive#1#2#3#4#5\end{\xdef\sfourchars{#1#2#3#4}

```

```

1749     \tfouroffive#5\end}
1750 \def\tfouroffive#1#2#3#4#5\end{\xdef\tfourchars{#1#2#3#4}
1751     \xdef\laststring{#5}}
1752 \def\uuid{\eightchars-%
1753     \ffourchars-%
1754     \sfourchars-%
1755     \tfourchars-%
1756     \laststring}

```

`\getTZh` This is a modification of the command from pdfx that also works for zero and negative hours.

```

1757 \def\getTZh#1{%
1758     \def\TZprefix{#1}%
1759     \ifx\TZprefix\tmpz
1760         \def\xTZsign{+}%
1761         \def\xTZh{00}%
1762         \def\xTZm{00}%
1763         \let\getTZnext\doConvDate
1764     \else
1765         \let\xTZsign\TZprefix
1766         \let\getTZnext\getTZhm
1767     \fi
1768     \getTZnext
1769 }

```

`\getTZm` This is a modified version of the command from pdfx.

```

1770 \def\getTZhm#1#2'#3#4' {%
1771     \edef\xTZh{#1#2}%
1772     \edef\xTZm{#3#4}%
1773     \doConvDate
1774 }

```

`\doConvDate` Defines the date using information derived from parsing `\pdfcreationdate`

```

1775 \def\doConvDate{%
1776     \edef\convDate{\xYear-\xMonth-\xDay
1777         T\xHour:\xMin:\xSec\xTZsign\xTZh:\xTZm}%
1778 }

```

`\@pre@hyperref` This macro contains a trimmed down version of pdfx.

```

1779 \newcommand{\@pre@hyperref}{%
1780     \IfFileExists{FOGRA39L.icc}%
1781     {%
1782         \pdfminorversion=3
1783         \pdfpageattr{/MediaBox[0 0 595 793]
1784             /BleedBox[0 0 595 793]
1785             /TrimBox[25 20 570 773]}%
1786         \findUUID{\jobname.pdf}%
1787         \edef\xmpdocid{\uuid}%
1788         \findUUID{\pdfcreationdate}%
1789         \edef\xmpinstid{\uuid}%

```

```

1790 \InputIfFileExists{\jobname.xmpdata}{}{}%
1791 \RequirePackage{xmpincl}%
1792 \expandafter\convertDate\pdfcreationdate
1793 \def\@pctchar{\expandafter\@gobble\string\%}
1794 \def\@bchar{\expandafter\@gobble\string\}
1795 \immediate\pdfobj stream attr{/N 4} file{FOGRA39L.icc}
1796 \edef\OBJ@CVR{\the\pdflastobj}
1797 \pdfcatalog{/OutputIntents [ <<
1798 /Type/OutputIntent
1799 /S/GTS_PDFX
1800 /OutputCondition (FOGRA39)
1801 /OutputConditionIdentifier (FOGRA39 \@bchar(ISO Coated v2
1802 300\@pctchar\space \@bchar(ECI\@bchar)\@bchar))
1803 /DestOutputProfile \OBJ@CVR\space 0 R
1804 /RegistryName(http://www.color.org)
1805 >> ]}
1806 \input glyphtounicode.tex
1807 \input glyphtounicode-cmr.tex
1808 \pdfgentounicode=1
1809 \RequirePackage[draft,pdftex,pdfpagemode=UseNone,bookmarks=false]{hyperref}%
1810 }%
1811 {%
1812 \ClassError{jmlrbook}{Can't find 'FOGRA39L.icc'}%
1813 {Download ISOcoated\string_v2\string_330\string_bas.icc from
1814 http://www.colormanagement.org/en/isoprofile.html
1815 Rename it FOGRA39L.icc and put it in the pdfx folder}%
1816 }%
1817 }
1818 \renewcommand*{\jmlrwritepdfinfo}{%
1819 \begingroup
1820 \let\&=\xmpAmp
1821 \IfFileExists{pdfx-1a.xmp}{%
1822 \pdfcompresslevel=0
1823 \immediate\pdfobj stream attr {/Type /Metadata /Subtype /XML}
1824 file{pdfx-1a.xmpi}
1825 \pdfcatalog{/Metadata \the\pdflastobj\space 0 R}
1826 }%
1827 }%
1828 \endgroup
1829 \protected@write@auxout{}{\string\jmlrbook@info{\xmpAuthor}{\xmpTitle}}%
1830 \pdfinfo{
1831 /Author(\xmpAuthor)%
1832 /Title(\xmpTitle)%
1833 /Creator(\xmpProducer)%
1834 /CreationDate(\convDate)%
1835 /ModDate(\convDate)%
1836 /Producer(\xmpProducer)%
1837 /Trapped /False
1838 /GTS_PDFXVersion (PDF/X-1:2001)%

```

```

1839         /GTS_PDFXConformance (PDF/X-1a:2001)%
1840     }%
1841 }

1842 \fi
1843 \else
1844 \newcommand*\jmlrwritepdfinfo{}
1845 \fi

```

\jmlrbook@info Not needed (information provided for MakeJmlrBookGUI)

```
1846 \newcommand*\jmlrbook@info}[2]{}

```

\jmlrbook@location Not needed (information provided for MakeJmlrBookGUI)

```
1847 \newcommand*\jmlrbook@location}[1]{}

```

\@post@hyperref

```

1848 \newcommand*\@post@hyperref}{%
1849 \let\@org@c@lenddoca\c@lenddoca
1850 \let\c@lenddoca\undefined
1851 }

```

Load combine class. This requires a little bit of trickery.

```

1852 \let\@org@LoadClass\LoadClass
1853 \def\LoadClass#1{\let\LoadClass\@org@LoadClass\@org@LoadClass{jmlr}}
1854 \@org@LoadClass{combine}
1855 \let\c@lenddoca\@org@c@lenddoca

```

Requires combnat to work with natbib:

```
1856 \RequirePackage{combnat}

```

Need to apply a patch to combnat (this has now been fixed in combnat, but user might be using an old version):

```

1857 \renewcommand\c@laNAT@parse[1]{%
1858 \let\protect=\@unexpandable@protect\let~\relax
1859 \let\active@prefix=\@gobble
1860 \xdef\NAT@temp{\csname b@#1\@extra@b@c@citeb\endcsname}}%
1861 \expandafter\NAT@split\NAT@temp?????@%
1862 \expandafter\NAT@parse@date\NAT@date?????@%
1863 \ifciteindex\NAT@index\fi}
1864
1865 \renewcommand\c@lbNAT@parse[1]{%
1866 \let\protect=\@unexpandable@protect\let~\relax
1867 \let\active@prefix=\@gobble
1868 \xdef\NAT@temp{\csname B?\jobname?@#1\@extra@b@c@citeb\endcsname}}%
1869 \expandafter\NAT@split\NAT@temp?????@%
1870 \expandafter\NAT@parse@date\NAT@date?????@%
1871 \ifciteindex\NAT@index\fi}

```

Start new chapters on the right hand page:

```
1872 \newif\if@openright

```

```
1873 \@openrighttrue
1874 \newif\if@mainmatter
```

Define commands that affect the formatting:

`\pagerule` Draw line across the text block.

```
1875 \newcommand*\pagerule}[1] [0pt]{\par\noindent
1876 \rule[#1]{\linewidth}{2pt}\par}
```

`preface` The preface environment starts a new chapter but also writes information to the main aux file for `makejmlrbook`. The optional argument is the file name for the extracted preface.

```
1877 \ifjmlrhtml
1878 \newenvironment{preface}[1] [preface]%
1879 {%
1880 \noindent\HCode{<h2>\prefacename</h2>}%
1881 }%
1882 {%
1883 }
1884 \else
1885 \newenvironment{preface}[1] [preface]%
1886 {%
1887 \jmlrprefaceheader
1888 \protected@write\@mainauxout
1889 {}{\string\@prefacestart{\thepage}{\arabic{page}}}%
1890 \protected@write\@mainauxout{\string\@prefacefile{\jmlrprefacepath}{#1}}%
1891 }%
1892 {%
1893 \protected@write\@mainauxout{\string\@prefaceend{\thepage}}%
1894 }
1895 \fi
```

`\prefacename`

```
1896 \newcommand*\prefacename}{Preface}
```

`\@prefacefile`

```
1897 \newcommand*\@prefacefile}[2]{}
```

`\@prefacestart`

```
1898 \newcommand*\@prefacestart}[2]{}
```

`\@prefaceend`

```
1899 \newcommand*\@prefaceend}[1]{}
```

`\@prefaceeditor`

```
1900 \newcommand*\@prefaceeditor}[1]{}
```

Cross-reference chapters:

```
1901 \newcommand*\chapterrefname}{Chapter}
```

```
1902 \newcommand*\chaptersrefname}{Chapters}
```

`\chapterref`

```
1903 \newcommand*{\chapterref}[1]{%
1904   \objectref{#1}{\chapterrefname}{\chaptersrefname}{}}}
```

Cross-referencing imported articles:

`\articlepageref` Page number of start of article

```
1905 \newcommand*{\articlepageref}[1]{%
1906   \pageref{#1jmlrstart}%
1907 }
```

`articlepagesref` Page range of article

```
1908 \newcommand*{\articlepagesref}[1]{%
1909   \pageref{#1jmlrstart}--\pageref{#1jmlrend}%
1910 }
```

`articlepagesref` Page range of article for use within the article

```
1911 \newcommand*{\@articlepagesref}{%
1912   \pageref{jmlrstart}--\pageref{jmlrend}%
1913 }
```

`articletitleref` Reference the short title of an imported article

```
1914 \newcommand*{\articletitleref}[1]{\nameref{#1jmlrstart}}
```

`articleauthorref` Reference the authors of an imported article

```
1915 \newcommand*{\articleauthorref}[1]{%
1916   \@ifundefined{@jmlr@author@#1}%
1917   {%
1918     \ClassWarning{jmlrbook}{Label ‘#1’ undefined}%
1919   }%
1920   {%
1921     \@nameuse{@jmlr@author@#1}%
1922   }%
1923 }
```

`\jmlrtitlehook` Extra title information

```
1924 \renewcommand*\jmlrtitlehook{%
1925   \hypersetup{pdftitle={\@shorttitle}}%
1926   \def\xmpTitle{\@shorttitle}%
1927   \let\jmlrtitlehook\relax
1928 }
1929 \providecommand*\xmpTitle{\@title}%
```

`\jmlrauthorhook`

```
1930 \renewcommand*\jmlrauthorhook{%
1931   \ifx\@sauthor\@empty
1932     \hypersetup{pdfauthor={\@author}}%
1933   \else
```

```

1934 \hypersetup{pdfauthor={\@sauthor}}%
1935 \fi
1936 \def\xmpAuthor{\@sauthor}%
1937 \let\jmlrauthorhook\relax
1938 \let\@shortauthor\@empty
1939 }
1940 \providecommand\xmpAuthor{\@author}%

```

\subtitle

```

1941 \newcommand*\@subtitle{}
1942 \newcommand*\@subtitle[1]{\renewcommand*\@subtitle{#1}}

```

\volume

```

1943 \newcommand*\@volume{\@jmlrvolume}
1944 \newcommand*\@volume[1]{%
1945 \renewcommand*\@volume{#1}%
1946 \ifjmlrpdfxa
1947 \let\xmpVolume\@volume
1948 \fi
1949 }

```

\jmlrissue

```

1950 \newcommand*\@issue{\@jmlrissue}
1951 \newcommand*\@issue[1]{%
1952 \renewcommand*\@issue{#1}%
1953 \ifjmlrpdfxa
1954 \let\xmpIssue\@issue
1955 \fi
1956 }

```

thejmlrworkshop Provided in the event that it's required for the title page.

```

1957 \newcommand*\thejmlrworkshop{\@jmlrworkshop}

```

\team

```

1958 \newcommand*\@team{}
1959 \newcommand*\@team[1]{\renewcommand*\@team{#1}}

```

\jmlrlocation

```

1960 \newcommand*\@jmlrlocation{}
1961 \newcommand*\@jmlrlocation[1]{%
1962 \renewcommand*\@jmlrlocation{#1}%
1963 \protected@write\auxout{\string\jmlrbook@location{#1}}%
1964 }

```

ctioeditorname

```

1965 \newcommand*\@productioneditorname{Production Editor}

```

roductioneditor

```
1966 \newcommand*{\@productioneditor}{%
1967 \newcommand*{\productioneditor}[1]{%
1968 \renewcommand*{\@productioneditor}{#1}%
1969 \renewcommand*{\@productioneditorname}{Production Editor}%
1970 }
```

roductioneditors

```
1971 \newcommand*{\productioneditors}[1]{%
1972 \renewcommand*{\@productioneditor}{#1}%
1973 \renewcommand*{\@productioneditorname}{Production Editors}%
1974 }
```

\logo Title page image

```
1975 \newcommand*{\@logo}{}
1976 \newcommand*{\logo}[2] [] {%
1977 \ifjmlrhtml
1978 \def\@logo@tmp{#1}%
1979 \ifx\@logo@tmp\@empty
1980 \renewcommand*{\@logo}{#2}%
1981 \else
1982 \renewcommand*{\@logo}{\HCode{<a href="#1">}#2\HCode{</a>}}%
1983 \fi
1984 \else
1985 \renewcommand*{\@logo}{#2}%
1986 \fi
1987 }
```

\booklinebreak Provided for book production editors to fine tune the book line breaking.

```
1988 \renewcommand*{\booklinebreak}[1] [4] {\linebreak[#1]}
```

Set article title

```
1989 \def\c@lbmaketitle{\jmlrmaketitle}
```

The book's title:

\maintitle

```
1990 \newcommand*{\maintitle}{}

Make it easier to modify the book's title page:
```

SetTitleElement

```
1991 \newcommand*{\SetTitleElement}[3] {%
1992 {%
1993 \expandafter\ifx\csname @#1\endcsname\@empty
1994 \else
1995 #2\csname @#1\endcsname#3%
1996 \fi
1997 }%
1998 }
```

\IfTitleElement Determine if the given element has been set:

```
1999 \newcommand{\IfTitleElement}[3]{%
2000   \expandafter\ifx\csname @#1\endcsname\@empty
2001     #2%
2002   \else
2003     #3%
2004   \fi
2005 }
```

\titlebody

```
2006 \newcommand{\titlebody}{%
2007   \SetTitleElement{title}{\maintitlefont}{\postmaintitle}%
2008   \SetTitleElement{volume}{\mainvolumefont}{\postmainvolume}%
2009   \SetTitleElement{subtitle}{\mainsubtitlefont}{\postmainsubtitle}%
2010   \SetTitleElement{logo}{\mainlogo font}{\postmainlogo}%
2011   \SetTitleElement{team}{\mainteamfont}{\postmainteam}%
2012   \SetTitleElement{author}{\mainauthorfont}{\postmainauthor}%
2013   \SetTitleElement{productioneditor}{\mainproductioneditorfont}%
2014     {\postmainproductioneditor}%
2015 }
```

\c@lamaketitle

```
2016 \ifjmlrhtml
2017   \renewcommand{\c@lamaketitle}{%
2018     \HCode{<table cellpadding="2" cellspacing="2" border="0" width="100\%">}%
2019     \HCode{<tbody><tr><td valign="top">}%
2020     \HCode{<h1>}%
2021     \@title\newline
2022     \ifx\@jmlrvolume\@empty
2023       \ifx\@volume\@empty
2024         \else
2025           Volume \@volume
2026           \ifx\@subtitle\@empty\else: \fi
2027         \fi
2028       \else
2029         Volume \@jmlrvolume
2030         \ifx\@subtitle\@empty\else: \fi
2031       \fi
2032       \@subtitle
2033       \HCode{</h1>}%
2034       \newline
2035       \textbf{Editors: \@author}
2036       \HCode{</td><td valign="top">}%
2037       \@logo
2038       \HCode{</td></tr></tbody></table>}%
2039       \let\maintitle\@title
2040     }
2041   \else
2042     \renewcommand{\c@lamaketitle}{%
```

```

2043 \pagenumbering{alph}%
2044 \pagestyle{empty}%
2045 \begin{titlepage}%
2046 \let\footnotesize\small
2047 \let\footnoterule\relax
2048 \let\footnote\thanks
2049 \titlebody
2050 \par
2051 \@thanks
2052 \end{titlepage}%
2053 \setcounter{footnote}{0}%
2054 \let\maintitle\@title
2055 \c@lmtitleempty
2056 }
2057 \fi

```

\maintitlefont

```

2058 \renewcommand{\maintitlefont}{%
2059 \null\vskip15pt\relax\par
2060 \flushleft\Huge\bfseries\noindent}

```

\postmaintitle

```

2061 \renewcommand{\postmaintitle}{%
2062 \par\relax
2063 }

```

\mainvolumefont

```

2064 \newcommand{\mainvolumefont}{%
2065 \flushleft\noindent\LARGE\bfseries Volume
2066 }

```

\postmainvolume

```

2067 \newcommand{\postmainvolume}{%
2068 \IfTitleElement{subtitle}{:}\par\relax
2069 }

```

\mainissuefont

```

2070 \newcommand{\mainissuefont}{%
2071 \flushleft\noindent\LARGE\bfseries Issue
2072 }

```

\postmainissue

```

2073 \newcommand{\postmainissue}{%
2074 \par\relax
2075 }

```

\mainsubtlefont

```

2076 \newcommand{\mainsubtlefont}{%
2077 \flushleft\LARGE\bfseries\noindent}

```

```

ostmainsubtitle
    2078 \newcommand{\postmainsubtitle}{\par}

\mainlogofont
    2079 \newcommand{\mainlogofont}{%
    2080 \vfill
    2081 \begin{center}}

\postmainlogo
    2082 \newcommand{\postmainlogo}{\end{center}\vfill\par}

\mainteamfont
    2083 \newcommand{\mainteamfont}{\flushleft\bfseries\Large\noindent}

\postmainteam
    2084 \newcommand{\postmainteam}{\par}

\mainauthorfont
    2085 \renewcommand{\mainauthorfont}{%
    2086 \flushleft\Large\itshape\doublespacing\noindent}

\postmainauthor
    2087 \renewcommand{\postmainauthor}{%
    2088 \par}

ctioneditorfont
    2089 \newcommand{\mainproductioneditorfont}{%
    2090 \flushleft\Large\noindent \@productioneditorname: \itshape}

roductioneditor
    2091 \newcommand{\postmainproductioneditor}{\par}

\maindatefont
    2092 \renewcommand{\maindatefont}{}

\postmaindate
    2093 \renewcommand{\postmaindate}{}

signoff Editorial team listed at the end of a preface etc. The mandatory argument is the date, the
optional argument is the team title. Each editor should be separated with \Editor.
    2094 \ifjmlrhtml
    2095 \newenvironment{signoff}[2][The Editorial Team]{%
    2096 \def\Editor##1{##1\par\vskip\baselineskip\noindent\ignorespaces}%
    2097 \def\@editorialteam{#1}%
    2098 \def\@signoffdate{#2}%
    2099 \par\vskip\baselineskip\noindent
    2100 \ifx\@signoffdate\@empty

```

```

2101 \else
2102 \emph{\@signoffdate}\nopagebreak\par
2103 \nopagebreak\vskip\baselineskip\noindent
2104 \fi
2105 \ifx\@editorialteam\@empty
2106 \else
2107 \@editorialteam:\nopagebreak\par\nopagebreak\vskip\baselineskip
2108 \fi
2109 \nopagebreak\noindent\ignorespaces
2110 }%
2111 {%
2112 }%
2113 \else
2114 \newenvironment{signoff}[2][The Editorial Team]{%
2115 \def\Editor##1{%
2116 \protected@write\@mainauxout{}\string\@prefaceeditor{##1}}%
2117 \begin{tabular}{@{}l@{}}%
2118 ##1%
2119 \end{tabular}%
2120 \par\vskip\baselineskip\noindent\ignorespaces
2121 }%
2122 \def\@editorialteam{##1}%
2123 \def\@signoffdate{##2}%
2124 \par\vskip\baselineskip\noindent
2125 \ifx\@signoffdate\@empty
2126 \else
2127 \emph{\@signoffdate}\par
2128 \vskip\baselineskip\noindent
2129 \fi
2130 \ifx\@editorialteam\@empty
2131 \else
2132 \@editorialteam:\nopagebreak\par\vskip\baselineskip
2133 \fi
2134 \nopagebreak\noindent\ignorespaces
2135 }%
2136 {%
2137 }
2138 \fi

```

authorsignoff An author can sign off at the end of a chapter (such as a foreword). Each author should be separated with `\Author`.

```

2139 \newenvironment{authorsignoff}{%
2140 \def\Author##1{\begin{tabular}{@{}p{\linewidth}@{}}%
2141 ##1%
2142 \end{tabular}}%
2143 \par\vskip\baselineskip\noindent\ignorespaces
2144 }%
2145 \par\vskip\baselineskip\noindent\ignorespaces
2146 }{%

```

2147 }

`\zeroextracounters` Reset counters at the start of each imported article

```
2148 \renewcommand{\zeroextracounters}{%
2149   \@ifundefined{c@theorem}{\setcounter{theorem}{0}}%
2150   \@ifundefined{c@algorithm}{\setcounter{algorithm}{0}}%
2151   \@ifundefined{c@algocf}{\setcounter{algocf}{0}}%
2152   \@ifundefined{c@example}{\setcounter{example}{0}}%
2153   \@ifundefined{c@definition}{\setcounter{definition}{0}}%
2154 }
```

`\contentsname` Redefine title of the table of contents

```
2155 \renewcommand*{\contentsname}{Table of Contents}
```

`\theHalgorithm`

```
2156 \def\theHalgorithm{\theHchapter.\thealgorithm}
```

`\theHsection`

```
2157 \def\theHsection{\theHchapter.\thesection}
2158 \def\theHsubsection{\theHchapter.\thesubsection}
2159 \def\theHsubsubsection{\theHchapter.\thesubsubsection}
2160 \def\theHparagraph{\theHchapter.\theparagraph}
```

`\theHsubfigure`

```
2161 \def\theHsubfigure{\theHfigure.\arabic{subfigure}}
2162 \def\theHsubtable{\theHtable.\arabic{subtable}}
```

`\theHfootnote`

```
2163 \def\theHfootnote{\theHchapter.\alpha{footnote}}
```

`\theHtable`

```
2164 \def\theHtable{\theHchapter.\arabic{table}}
```

`\theHfigure`

```
2165 \def\theHfigure{\theHchapter.\arabic{figure}}
```

`\theHalgocf`

```
2166 \def\theHalgocf{\theHchapter.\thealgocf}
```

`\mailto`

```
2167 \renewcommand*{\mailto}[1]{%
2168   \href{mailto:#1}{\nolinkurl{#1}}%
2169 }
```

```
2170 \c@lhaschapterfalse
```

```
2171 \let\c@lthesec\thesection
```

Make sure the hyperlinks work

portchapterHRef

```
2172 \newcommand\doimportchapterHRef{%
2173   \edef\@currentHRef{chapter.\thechapter}%
2174 }
```

clevelevel@appendix Set the toc level for the main appendices

```
2175 \def\toclevel@appendix{-1}
```

hyperref and combine don't play nicely need to fudge the cross-referencing a bit.

\Xprefix

```
2176 \def\Xprefix{}
```

\Xref

```
2177 \DeclareRobustCommand\Xref{\@ifstar\@Xrefstar\T@Xref}%
```

\Xpageref

```
2178 \DeclareRobustCommand\Xpageref{%
2179   \@ifstar\@Xpagerefstar\T@Xpageref
2180 }%
```

Ref@StarSetXRef

```
2181 \def\HyRef@StarSetXRef#1{%
2182   \begingroup
2183   \Hy@safe@activestruer
2184   \edef\x{#1}%
2185   \@onelevel@sanitize\x
2186   \edef\x{\endgroup
2187     \noexpand\HyRef@@StarSetRef
2188     \expandafter\noexpand\csname r@\Xprefix\x\endcsname{\x}%
2189   }%
2190   \x
2191 }
2192 % \end{macrocode}
2193 %\end{macro}
2194 %
2195 %\begin{macro}{\@Xrefstar}
2196 % \begin{macrocode}
2197 \def\@Xrefstar#1{%
2198   \HyRef@StarSetXRef{#1}\@firstoffive
2199 }
```

\@Xpagerefstar

```
2200 \def\@Xpagerefstar#1{%
2201   \HyRef@StarSetXRef{#1}\@secondoffive
2202 }
```

`\T@Xref`

```
2203 \def\T@Xref#1{%
2204   \Hy@safe@activestru
2205   \expandafter\@setXref\csname r@Xprefix#1\endcsname\@firstoffive{#1}%
2206   \Hy@safe@activesfalse
2207 }%
```

`\T@Xpageref`

```
2208 \def\T@Xpageref#1{%
2209   \Hy@safe@activestru
2210   \expandafter\@setXref\csname r@Xprefix#1\endcsname\@secondoffive{#1}%
2211   \Hy@safe@activesfalse
2212 }%
```

`\Xlabel`

```
2213 \def\Xlabel#1{%
2214   \@bsphack
2215   \begingroup
2216     \@onelevel@sanitize\@currentlabelname
2217     \edef\@currentlabelname{%
2218       \expandafter\strip@period\@currentlabelname\relax.\relax\@@@
2219     }%
2220     \protected@write\@mainauxout{}{%
2221       \string\newlabel{Xprefix#1}{\@currentlabel}{\thepage}%
2222       {\@currentlabelname}{\@currentHref}{}}%
2223     }%
2224   \endgroup
2225   \@esphack
2226 }
2227 \let\ltx@label\Xlabel
```

`\@setXref`

```
2228 \def\@setXref#1#2#3{% csname, extract group, refname
2229   \ifx#1\relax
2230     \protect\G@refundefinedtrue
2231     \nfss@text{\reset@font\bfseries ??}%
2232     \@latex@warning{%
2233       Reference ‘#3’ on page \thepage \space undefined%
2234     }%
2235   \else
2236     \expandafter\Hy@setref@link#1\@empty\@empty\@nil{#2}%
2237   \fi
2238 }
```

`\@secondoffive` Something's redefining `\@secondoffive` incorrectly at the start of the document when hyperref's draft mode is on. Need to fix it.

```
2239 \AtBeginDocument{%
2240   \renewcommand\@secondoffive[5]{#2}%
```

```

2241 \jmlrwritepdfinfo
2242 \let\jmlrwritepdfinfo\relax
2243 }

```

Need to write imported chapter label to main auxfile.

@setimportlabel

```

2244 \def\@setimportlabel{%
2245 \let\@mainauxout\@auxout
2246 \let\HRlabel\label
2247 }

2248 \AtBeginDocument{\@jmlrbegindoc}

```

\@jmlrbegindoc

```

2249 \newcommand*\@jmlrbegindoc{
2250 \@setimportlabel
2251 \gdef\@setimportlabel{\let\ref\Xref \let\pageref\Xpageref}%
2252 \let\ReadBookmarks\relax

```

Patch to work with auxhook if loaded

```

2253 \@ifundefined{@beginmainauxhook}{}{\@beginmainauxhook}%
2254 }

```

Imported papers modify \InputIfFileExists so save original definition.

```

2255 \let\@org@InputIfFileExists\InputIfFileExists

```

jmlrpapers

```

2256 \newenvironment{jmlrpapers}{%

2257 \def\@begindocumenthook{%
2258 \@jmlrbegindoc
2259 \let\bibcite\c@lbNATbibcite
2260 }

2261 \def\@enddocumenthook{%
2262 \@jmlrenddoc
2263 \let\bibcite\c@lbNAT@testdef
2264 }

2265 \begin{papers}[]

2266 \if@twocolumn
2267 \def\@jmlr@restore{\twocolumn}%
2268 \else
2269 \def\@jmlr@restore{\onecolumn}%
2270 \fi
2271 \jmlrarticlecommands
2272 \let\importpubpaper\@importpubpaper
2273 \let\importpaper\@importpaper
2274 \let\importarticle\@importarticle
2275 \let\label\Xlabel

```

```

2276 \let\ref\Xref
2277 \pagestyle{article}%
2278 }{%
2279 \@jmlr@restore
2280 \end{papers}
2281 }

```

dtomaincontents

```

2282 \newcommand{\addtomaincontents}[2]{%
2283 \protected@write\@mainauxout{\let\label\@gobble\let\index\@gobble
2284 \let\glossary\@gobble}\string\@writefile{#1}{#2}}%
2285 }

```

\@write@author

```

2286 \newcommand*\@write@author}[2]{%
2287 \def\@jmlr@authors@sep{ and }%
2288 \protected@write\@mainauxout}{%
2289 \string\@new@articleauthor{#1}{#2}}%
2290 }%
2291 }

```

w@articleauthor

```

2292 \newcommand*\@new@articleauthor}[2]{%
2293 \expandafter\gdef\csname @jmlr@author@#1\endcsname{%
2294 \hyperref[#1jmlrstart]{#2}}%
2295 }

```

ite@jmlr@import The accompanying makejmlrbook Perl script scans the aux file for information. Any articles imported using \importpubpaper, \importpaper or \importarticle need to write the relevant information to the aux file.

```

2296 \newcommand*\@@write@jmlr@import}[3]{%
2297 \protected@write\@mainauxout}{\string\@jmlr@import{#1}{#2}{#3}}%
2298 }

```

\@jmlr@import \LaTeX should ignore \@jmlr@import as it's only needed for makejmlrbook:

```

2299 \newcommand*\@jmlr@import}[3]{

```

@jmlr@apdimport As above but for files imported in the appendix.

```

2300 \newcommand*\@@write@jmlr@apdimport}[3]{%
2301 \protected@write\@mainauxout}{\string\@jmlr@apdimport{#1}{#2}{#3}}%
2302 }

```

@jmlr@apdimport As above but for files imported in the appendix. \LaTeX should ignore \@jmlr@apdimport as it's only needed for makejmlrbookgui:

```

2303 \newcommand*\@jmlr@apdimport}[3]{

```

ite@jmlr@import Initialise to \@write@jmlr@import and switch to \@write@jmlr@apdimport in the appendices.

```

2304 \def\@write@jmlr@import{\@write@jmlr@import}

```

```

remaketitlehook  Redefine \jmlrpmaketitlehook
2305 \def\jmlrpmaketitlehook{%
2306   \cleardoublepage
2307   \phantomsection
2308   \let\@currentlabelname\@shorttitle

2309   \refstepcounter{chapter}%
2310 }%

\jmlrimporthook  Hook just before document is imported.
2311 \newcommand*\jmlrimporthook{}

\importpubpaper  Import a document that has already been published. Syntax: \importpubpaper [label]
                 {dir}{file}{pages} where dir is the directory in which the paper is located, file is the
                 name of the file and pages indicates the page range for the original version. The optional
                 argument is a label. This is used to prefix the labels and citations in the document so they
                 don't clash with other imported articles. If omitted, dir/file is used instead.
2312 \newcommand*\@importpubpaper[4][\@importdir\@importfile]{%
2313   \bgroup
2314   \def\@importdir{#2}/}%
2315   \def\@importfile{#3}%
2316   \@writejmlr@import{#1}{#2}{#3}%
2317   \def\@extra@b@citeb{#1}%
2318   \def\@extra@b@info{#1}%
2319   \jmlrpages{#4}%
2320   \graphicspath{\@importdir}%
2321   \def\jmlrmaketitlehook{%

2322     \label{}}%
2323     \def\titlebreak{ }%
2324     \addtomaincontents{toc}%

2325     {%
2326       \protect\contentsline{papertitle}{\@title}{\thepage}%
2327     {page.\thepage}}%
2328     \pdfbookmark{\@shorttitle}{chapter.\theHchapter}%
2329     \def\@jmlr@authors@sep{ \& }%

2330     \tocchapterpubauthor{\@jmlr@authors}%
2331     {%
2332       \@jmlr@abbrv@proceedings
2333       \ifx\@jmlrvolume\@empty
2334         \ifx\@jmlrpages\@empty\else\space\fi
2335       \else
2336         \space\@jmlrvolume
2337         \ifx\@jmlrissue\@empty
2338         \else
2339           (\@jmlrissue)%
2340         \fi

```

```

2341         \ifx\@jmlrpages\@empty\else:\fi
2342     \fi
2343     \ifx\@jmlrpages\@empty
2344     \else
2345         \@jmlrpages
2346         \ifx\@jmlryear\@empty\else,\fi
2347     \fi
2348     \space\@jmlryear
2349 }%

2350     \@write@author{#1}{\@jmlr@authors}%
2351 }%
2352 \def\InputIfFileExists##1##2##3{%
2353     \IfFileExists{##1}{%
2354         \@org@InputIfFileExists{##1}{##2}{##3}%
2355     }%
2356     {%
2357         \@org@InputIfFileExists{\@importdir##1}{##2}{##3}%
2358     }%
2359 }%
2360 \def\Xprefix{#1}%
2361 \jmlrimporthook
2362 \import{\@importdir\@importfile}%
2363 \def\Xprefix{}%
2364 \egroup
2365 \gdef\@shortauthor{}%
2366 \gdef\@shorttitle{}%
2367 \gdef\@firstauthor{}%
2368 \gdef\@jmlr@authors{\@jmlrauthors}%
2369 \gdef\@jmlrauthors{}%
2370 \gdef\@firstsurname{}%
2371 }
2372 \newcommand{\importpubpaper}[4][{}]{%
2373     \ClassError{jmlrbook}{\string\importpubpaper\space
2374 not permitted outside ‘jmlrpapers’ environment}{}%
2375 }

```

`\importpaper` Like `\importpubpaper` but sets the pages to the page-range for this book.

```

2376 \newcommand{\@importpaper}[3][\@importdir\@importfile]{%
2377     \bgroup
2378     \def\@importdir{#2/}%
2379     \def\@importfile{#3}%
2380     \@write@jmlr@import{#1}{#2}{#3}%
2381     \def\@extra@b@citeb{#1}%
2382     \def\@extra@b@info{#1}%
2383     \jmlrpages{\protect\@articlepagesref}%
2384     \graphicspath{\@importdir}%
2385     \def\jmlrmaketitlehook{%
2386         \label{}%

```

```

2387     \def\titlebreak{ }%
2388     \addtomaincontents{toc}%

2389     {%
2390         \protect\contentsline{papertitle}{\@title}{\thepage}%
2391     {page.\thepage}}%
2392     \pdfbookmark{\@shorttitle}{chapter.\theHchapter}%
2393     \def\@jmlr@authors@sep{ \& }%

2394     \tocchapterpubauthor{\@jmlr@authors}%
2395     {%
2396         \@jmlrabbrvproceedings
2397         \ifx\@jmlrvolume\@empty
2398             \space
2399         \else
2400             \space\@jmlrvolume
2401             \ifx\@jmlrissue\@empty
2402                 \else
2403                     (\@jmlrissue)%
2404             \fi
2405             :%
2406         \fi
2407         \protect\articlepagesref{#1}%
2408         \ifx\@jmlryear\@empty\else,\fi
2409         \space\@jmlryear
2410     }%

2411     \@writeauthor{#1}{\@jmlr@authors}%
2412 }%
2413 \def\InputIfFileExists##1##2##3{%
2414     \IfFileExists{##1}{%
2415         \@org@InputIfFileExists{##1}{##2}{##3}%
2416     }%
2417     {%
2418         \@org@InputIfFileExists{\@importdir##1}{##2}{##3}%
2419     }%
2420 }%
2421 \def\Xprefix{#1}%

2422 \let\jmlrvolume\@gobble
2423 \let\jmlryear\@gobble
2424 \let\jmlrworkshop\@gobble
2425 \let\jmlrissue\@gobble
2426 \let\jmlrpages\@gobble
2427 \jmlrimporthook
2428 \import{\@importdir\@importfile}%

```

Disable \jmlrvolume, \jmlryear, \jmlrworkshop etc (since the imported papers belong to the same volume as the book—use \importpubpaper for papers pre-published in another volume).

```

2429 \def\Xprefix{}%
2430 \egroup
2431 \gdef\@shortauthor{}%
2432 \gdef\@shorttitle{}%
2433 \gdef\@firstauthor{}%
2434 \gdef\@jmlr@authors{\@jmlrauthors}%
2435 \gdef\@jmlrauthors{}%
2436 \gdef\@firstsurname{}%
2437 }
2438
2439 \newcommand{\importpaper}[3][[]]{%
2440 \ClassError{jmlrbook}{\string\importpaper\space
2441 not permitted outside 'jmlrpapers' environment}{}%
2442 }

```

`\importarticle` Import a document that hasn't been published. Syntax: `\importarticle[<label>]{<dir>}{<file>}` where *<dir>* is the directory in which the paper is located and *<file>* is the name of the file. The optional argument is a label. This is used to prefix the labels and citations in the document so they don't clash with other imported articles. If omitted, *<file>* is used instead.

```

2443 \newcommand{\@importarticle}[3][\@importdir\@importfile]{%
2444 \bgroup
2445 \def\@importdir{#2/}%
2446 \def\@importfile{#3}%
2447 \@write@jmlr@import{#1}{#2}{#3}%
2448 \def\@extra@b@citeb{#1}%
2449 \def\@extra@b@info{#1}%
2450 \def\jmlrmaketitlehook{%
2451 \def\titlebreak{ }}%
2452 \addtomaincontents{toc}%

2453 {%
2454 \protect\contentsline{papertitle}{\@title}{\thepage}%
2455 {page.\thepage}}%

2456 \label{}%
2457 \pdfbookmark{\@shorttitle}{chapter.\theHchapter}%
2458 \def\@jmlr@authors@sep{ \& }%

2459 \tocchapterauthor{\@jmlr@authors}%
2460 \@write@author{#1}{\@jmlr@authors}%
2461 \jmlrpages{}%
2462 \jmlrvolume{}%
2463 \jmlryear{}%
2464 \jmlrsubmitted{}%
2465 \jmlrpublished{}%
2466 \jmlrproceedings{}{}%
2467 }%
2468 \graphicspath{\@importdir}%
2469 \def\InputIfFileExists##1##2##3{%

```

```

2470 \IfFileExists{##1}{%
2471 \@org@InputIfFileExists{##1}{##2}{##3}%
2472 }%
2473 {%
2474 \@org@InputIfFileExists{\@importdir##1}{##2}{##3}%
2475 }%
2476 }%
2477 \def\Xprefix{#1}%
2478 \jmlrimporthook

2479 \let\ps@jmlrtps\ps@articlet
2480 \import{\@importdir\@importfile}%
2481 \def\Xprefix{}%
2482 \egroup
2483 \gdef\@shortauthor{}%
2484 \gdef\@shorttitle{}%
2485 \gdef\@firstauthor{}%
2486 \gdef\@jmlr@authors{\@jmlrauthors}%
2487 \gdef\@jmlrauthors{}%
2488 \gdef\@firstsurname{}%
2489 }
2490 \newcommand{\importarticle}[3][{}]{%
2491 \ClassError{jmlrbook}{\string\importarticle\space
2492 not permitted outside ‘jmlrpapers’ environment}{}%
2493 }

```

`\addtocpart` Add a part to the TOC without printing anything in the text (but does a `\cleardoublepage`).

```

2494 \newcommand{\addtocpart}[1]{%
2495 \cleardoublepage
2496 \refstepcounter{tocpart}%
2497 \addtocontents{toc}{\protect\tocpart{#1}}%
2498 \pdfbookmark[-1]{#1}{part.\thetocpart}%
2499 }
2500 \newcounter{tocpart}

```

`\tocpart` Define the appearance of a part in the TOC.

```

2501 \newcommand{\tocpart}[1]{%
2502 \addpenalty{-\@highpenalty}%
2503 \vskip 1.0ex \@plus\p@
2504 \setlength\@tempdima{2.25em}%
2505 \begingroup
2506 \parindent \z@ \rightskip \@pnumwidth
2507 \parfillskip -\@pnumwidth
2508 \leavevmode \large\bfseries
2509 \advance\leftskip\@tempdima
2510 \hskip -\leftskip
2511 #1\nobreak\hfil \nobreak\hb@xt@\@pnumwidth{\hss \null}\par
2512 \penalty\@highpenalty
2513 \endgroup
2514 }

```

Set up the layout of the chapter headings

```
2515 \setlength{\prechapterskip}{3em}
2516 \setlength{\postchapterskip}{20pt}
```

ternumberformat

```
2517 \renewcommand{\chapternumberformat}[1]{%
2518 \Large\bfseries \@chapapp\space#1\par
2519 }
```

ptertitleformat

```
2520 \renewcommand{\chaptertitleformat}[1]{%
2521 \Large\bfseries #1}
```

\chapterformat

```
2522 \renewcommand*{\chapterformat}{%
2523 \raggedright
2524 }
```

Set up the format of a part in the book (not a part in an article).

\preparthook

```
2525 \renewcommand{\preparthook}{\cleardoublepage\null\vfil}
```

artnumberformat

```
2526 \renewcommand{\partnumberformat}[1]{%
2527 \Huge\bfseries \@partapp\nobreakspace#1\par\nobreak
2528 \vskip 20\p@
2529 }
```

\postparthook

```
2530 \def\postparthook{%
2531 \thispagestyle{empty}%
2532 \vfil\newpage
2533 \null
2534 \thispagestyle{empty}%
2535 \newpage
2536 }
```

\@curparthead The heading of the current part

```
2537 \newcommand{\@curparthead}{}
```

parttitleformat

```
2538 \renewcommand{\parttitleformat}[1]{#1%
2539 \gdef\@curparthead{\@partapp\space \thepart. #1}%
2540 \@mkboth{\@curparthead}{\@curparthead}%
2541 }
```

\firstpageno Change \firstpageno to do nothing as the page number will be determined by the book.

```
2542 \renewcommand{\firstpageno}[1]{}
```

tocchapterauthor Add the author of the current chapter to the table of contents.

```
2543 \newcommand{\tocchapterauthor}[1]{%
2544   \addtomaincontents{toc}{\protect\contentsline{chapterauthor}{%
2545     #1}{-}{-}}%
2546 }
```

chapterpubauthor Add the author of an imported prepublished paper to the table of contents. The first argument is the author (or list of authors). The second argument is the reference to the published article.

```
2547 \newcommand{\tocchapterpubauthor}[2]{%
2548   \addtomaincontents{toc}{\protect\contentsline{chapterauthor}{%
2549     #1; #2.}{-}{-}}%
2550 }
```

Set up the formatting in the TOC

```
2551 \renewcommand*\@pnumwidth{2em}
```

\l@part Format for book parts

```
2552 \renewcommand*\l@part[2]{%
2553   \ifnum \c@tocdepth >\m@ne
2554     \addpenalty{-\@highpenalty}%
2555     \vskip 1.0em \@plus\p@
2556     %\setlength\@tempdima{5em}%
2557     \settowidth\@tempdima{\large\bfseries \@partapp\space MM}%
2558     \vbox{%
2559       \pagerule
2560       \begingroup
2561         \parindent \z@ \rightskip \@pnumwidth
2562         \parfillskip -\@pnumwidth
2563         \leavevmode \large\bfseries
2564         \advance\leftskip\@tempdima
2565         \hskip -\leftskip
2566         \renewcommand* \numberline[1]{\hb@xt@ \@tempdima
2567           {\@partapp\space ##1\hfil }}%
2568         #1\nobreak\hfil \nobreak\hb@xt@\@pnumwidth{\hss
2569           \normalfont\normalsize #2}\par
2570         \penalty\@highpenalty
2571       \endgroup
2572       \pagerule
2573     }%
2574   \fi}
```

\l@chapter

```
2575 \renewcommand{\l@chapter}[2]{%
2576   \ifnum\c@tocdepth>\m@ne
2577     \addpenalty{-\@highpenalty}%
2578     \vskip 1.0em \@plus \p@
2579     \setlength\@tempdima{2em}%

```

```

2580 \begingroup
2581   \parindent \z@
2582   \rightskip \@pnumwidth
2583   \parfillskip -\@pnumwidth
2584   \leavevmode \large \bfseries
2585   \advance \leftskip \@tempdima
2586   \hskip -\leftskip
2587   \renewcommand*\numberline[1]{\hb@xt@ \@tempdima
2588     {##1\hfil }}%
2589   #1\nobreak \hfil \nobreak \hb@xt@ \@pnumwidth {\hss
2590     \normalfont\normalsize #2}\par
2591   \penalty \@highpenalty
2592 \endgroup
2593 \fi
2594 }

```

\l@papertitle

```

2595 \newcommand*\l@papertitle[2]{%
2596   \ifnum \c@tocdepth >\m@ne
2597     \addpenalty{-\@highpenalty}%
2598     \vskip 1.0em \@plus\p@
2599     \setlength\@tempdima{3em}%
2600     \begingroup
2601       \leavevmode \raggedright\itshape
2602       #1\nobreak\hfill \nobreak\hb@xt@\@pnumwidth{\hss
2603         \normalfont#2}%
2604       \par
2605       \penalty\@highpenalty
2606     \endgroup
2607   \fi
2608 }

```

\l@chapterauthor

```

2609 \newcommand*\l@chapterauthor[2]{%
2610   \ifnum \c@tocdepth >\m@ne
2611     \begingroup
2612       \parindent \z@
2613       \rightskip \@pnumwidth
2614       \parfillskip -\@pnumwidth
2615       \leavevmode \raggedright
2616       \parbox{\linewidth-\@pnumwidth}{\raggedright#1\par}%
2617       \par
2618     \endgroup
2619   \fi}

```

\l@section

```

2620 \renewcommand*\l@section[2]{%
2621   \ifnum \c@tocdepth >\m@ne

```

```

2622 \addpenalty{-\@highpenalty}%
2623 \vskip 1.0em \@plus\p@
2624 \setlength\@tempdima{3em}%
2625 \beginingroup
2626 \parindent \z@ \rightskip \@pnumwidth
2627 \parfillskip -\@pnumwidth
2628 \leavevmode \normalsize\mdseries
2629 \advance\leftskip\@tempdima
2630 \hskip -\leftskip
2631 #1\nobreak\hfil \nobreak\hb@xt@\@pnumwidth{\hss #2}\par
2632 \penalty\@highpenalty
2633 \endgroup
2634 \fi}

```

\l@section

```

2635 \renewcommand*\l@section[2]{%
2636 \ifnum \c@tocdepth >\m@ne
2637 \addpenalty{-\@highpenalty}%
2638 \vskip 1.0em \@plus\p@
2639 \setlength\@tempdima{3.5em}%
2640 \beginingroup
2641 \parindent \z@ \rightskip \@pnumwidth
2642 \parfillskip -\@pnumwidth
2643 \leavevmode \normalsize\mdseries
2644 \advance\leftskip\@tempdima
2645 \hskip -\leftskip
2646 #1\nobreak\hfil \nobreak\hb@xt@\@pnumwidth{\hss #2}\par
2647 \penalty\@highpenalty
2648 \endgroup
2649 \fi}

```

\chaptermark

```

2650 \renewcommand*\chaptermark[1]{%
2651 \mkboth{\@curparhead}{\protect\thechapter. #1}%
2652 }

```

Set up page styles

\firstpagehead

```

2653 \newcommand{\firstpagehead}{}

```

\firstpagefoot

```

2654 \newcommand{\firstpagefoot}{%
2655 \@reprint\hfill\thepage
2656 }

```

\headfont Set the header font

```

2657 \newcommand*\headfont{\reset@font\small\scshape}%

```

```

\footfont Set the footer font
2658 \newcommand*{\footfont}{\reset@font\small\itshape}%

\ps@chplain Page style for first page of a chapter
2659 \newcommand*{\ps@chplain}{%
2660 \let\@mkboth\@gobbletwo
2661 \renewcommand*{\@oddhead}{\headfont\firstpagehead}%
2662 \renewcommand*{\@evenhead}{}%
2663 \renewcommand*{\@oddfoot}{\footfont\firstpagefoot}%
2664 \renewcommand*{\@evenfoot}{\footfont\thepage\hfill
2665 }%
2666 }
2667 \let\ps@plain\ps@chplain

\ps@article Page style for the imported articles.
2668 \newcommand*{\ps@article}{%
2669 \let\@mkboth\@gobbletwo
2670 \renewcommand*{\@oddhead}{\headfont\hfill\@shorttitle}%
2671 \renewcommand*{\@evenhead}{\headfont\@shortauthor\hfill}%
2672 \renewcommand*{\@oddfoot}{\footfont\hfill\thepage}
2673 \renewcommand*{\@evenfoot}{\footfont\thepage\hfill}
2674 }

\ps@articlet Title page style for imported articles (imported using \importarticle)
2675 \newcommand*{\ps@articlet}{%
2676 \let\@mkboth\@gobbletwo
2677 \renewcommand*{\@oddhead}{}%
2678 \renewcommand*{\@evenhead}{}%
2679 \renewcommand*{\@oddfoot}{\footfont\hfill\thepage}
2680 \renewcommand*{\@evenfoot}{\footfont\thepage\hfill}
2681 }

\ps@jmlrbook Page style for book
2682 \newcommand*{\ps@jmlrbook}{%
2683 \renewcommand*{\@oddfoot}{\footfont\hfill\thepage}
2684 \renewcommand*{\@evenfoot}{\footfont\thepage\hfill}
2685 \def\@evenhead{\headfont\leftmark\hfill}%
2686 \def\@oddhead{\hfill\headfont\rightmark}%
2687 \let\@mkboth\markboth
2688 \renewcommand*{\sectionmark}[1]{%
2689 }

\markleft Provide a command to set just the left header mark.
2690 \newcommand*{\markleft}[1]{%
2691 \begingroup
2692 \let\label\relax
2693 \let\index\relax
2694 \let\glossary\relax

```

```

2695 \expandafter\@markleft\@themark{#1}%
2696 \@temptokena
2697 \expandafter{\@themark}%
2698 \mark{\the\@temptokena}
2699 \endgroup
2700 \if@nobreak
2701 \ifvmode
2702 \nobreak
2703 \fi
2704 \fi
2705 }
2706 \newcommand*\@markleft}[3]{%
2707 \@temptokena{#2}%
2708 \unrestored@protected@xdef\@themark{#3}{\the\@temptokena}}
2709 }

```

morefrontmatter

```

2710 \renewcommand*\morefrontmatter{\pagestyle{jmlrbook}}%
2711 \def\chaptermark##1{%
2712 \mkboth{##1\hfill}{\hfill##1}}%
2713 }

```

\moremainmatter

```

2714 \renewcommand*\moremainmatter{\pagestyle{jmlrbook}}%
2715 \def\chaptermark##1{%
2716 \mkboth{\@curparthead}{\protect\thechapter. ##1}%
2717 }%
2718 }

```

\bibsection Set the bibliography headings in the articles

```

2719 \renewcommand*\bibsection{\section*\refname}

```

Set up the book commands:

```

2720 \jmlrbookcommands

```

In the event that authors have used different versions of algorithm2e, define old command names.

```

2721 \providecommand*\SetNoLine{\SetAlgoNoLine}
2722 \providecommand*\SetVline{\SetAlgoVlined}
2723 \providecommand*\Setvlineskip{\SetVlineSkip}
2724 \providecommand*\SetLine{\SetAlgoLined}
2725 \providecommand*\dontprintsemicolon{\DontPrintSemicolon}
2726 \providecommand*\printsemicolon{\PrintSemicolon}
2727 \providecommand*\incmargin{\IncMargin}
2728 \providecommand*\decmargin[1]{\DecMargin{-#1}}
2729 \providecommand*\setnlskip{\SetNlSkip}
2730 \providecommand*\Setnlskip{\SetNlSkip}
2731 \providecommand*\setalcapskip{\SetAlCapSkip}
2732 \providecommand*\setalcaphskip{\SetAlCapHSkip}

```

```
2733 \providecommand*\nlSty{\NlSty}
2734 \providecommand*\Setnlsty{\SetNlSty}
2735 \providecommand*\linesnumbered{\LinesNumbered}
2736 \providecommand*\linesnotnumbered{\LinesNotNumbered}
2737 \providecommand*\linesnumberedhidden{\LinesNumberedHidden}
2738 \providecommand*\showln{\ShowLn}
2739 \providecommand*\showlnlabel{\ShowLnLabel}
2740 \providecommand*\nocaptionofalgo{\NoCaptionOfAlgo}
2741 \providecommand*\restorecaptionofalgo{\RestoreCaptionOfAlgo}
2742 \providecommand*\restylealgo{\RestyleAlgo}
2743 \providecommand*\Titleofalgo{\TitleOfAlgo}
```

Change History

1.06 (2010-06-17)	
\iftablecaptiontop: new	53
1.07 (2010-06-30)	
\jmlrmaketitle: added check for two	
column mode	62
jmlrpapers: Added check for two	
column style	103
1.08 (2010-07-27)	
\@makefntext: new	59
\footnoteseptext: new	59
\jmlrmaketitle: modified footnote	
marker in the footnote text so that it is	
raised and isn't followed by a full stop	61
1.09 (2010/12/01)	
\@partapp: new	79
\@titlefoot: added \@reprint	67
General: caption set up so that it doesn't	
use a box	40
\algocfconts: new	40
\booktocpreamble: new	78
abstract: changed \centerline to	
\centering... \par	59
\firstpagefoot: added \@reprint ..	113
\importarticle: Added \label to	
\jmlrmaketitlehook	108
\importpaper: Added \label to	
\jmlrmaketitlehook	106
\importpubpaper: Added \label to	
\jmlrmaketitlehook	105
\jmlrimporthook: new	105
\jmlrpreauthor: added \nametag	63
\jmlrpremaketitlehook: Moved	
\refstepcounter from	
\jmlrmaketitlehook to	
\jmlrpremaketitlehook	105
Moved redefinition outside of import	
macros	105
jmlrpapers: reset start and end	
document hook to avoid problems	
	caused by packages defining duplicate
	commands etc
	103
	\nametag: new
	63
	\reprint: new
	68
	\subfigure: Added check to determine
	whether the subfigure caption is wider
	than the subfigure
	43
	\subtable: Added check to determine
	whether the subtable caption is wider
	than the subtable
	46
1.10 (2011-01-05)	
General: Added 10pt, 11pt and 12pt	
options to jmlrbook	86
font size options don't pass option to	
class	54
hyperref now loaded by jmlr instead of	
jmlrbook	53
passed \pt@size when loading article	
class	56
Removed redundant redefinition of	
\@bookpart	115
\artpart: set \toclevel@part	78
\bookpart: set \toclevel@part	79
\jmlrpreauthor: added \mdseries to	
\addr	63
\startpage: new	67
\thanks: Modified definition of \thanks	59
1.11 (2011-03-24)	
General: added old algorithm2e	
commands	115
fink package now required	85
\jmlrabbrnamelist: new	65
\jmlrwcpc: Fixed typo	55
\l@chapterauthor: removed penalty .	112
\prefacename: new	92
preface: new	92
1.12 (2012/01/05)	
\@jmlr@authors: new	70
\@shorttitle: provided default value ..	60

General: changed <code>\newcommand</code> to	1.16 (2012/05/15)
<code>\providecommand</code>	85
removed class option <code>prehyperref</code>	53
<code>\artappendix</code> : added chapter to	
<code>\theHsection</code> to ensure unique	
hyperlink names in book	74
<code>\importarticle</code> : changed	
<code>\@jmlrauthors</code> to <code>\@jmlr@authors</code>	108
changed <code>\@shorttitle</code> to <code>\@title</code> .	108
<code>\importpaper</code> : changed <code>\@jmlrauthors</code>	
to <code>\@jmlr@authors</code>	107
changed <code>\@shorttitle</code> to <code>\@title</code> .	107
<code>\importpubpaper</code> : changed	
<code>\@jmlrauthors</code> to	
<code>\@jmlr@authors</code>	105, 106
changed <code>\@shorttitle</code> to <code>\@title</code> .	105
<code>\jmlrauthors</code> : <code>\jmlrauthors</code> now	
redefines <code>\@jmlr@authors</code> instead of	
<code>\@jmlrauthors</code>	70
<code>\jmlrprehyperref</code> : removed @ from	
name so it can be defined by user ...	53
<code>\Name</code> : added optional argument	64
<code>\theHalgorithm</code> : in definition, changed	
<code>\thechapter</code> to <code>\theHchapter</code> ...	100
<code>\theHfigure</code> : new	100
<code>\theHfootnote</code> : new	100
<code>\theHtable</code> : new	100
<code>\titlebreak</code> : new	60
1.13 (2012/02/25)	
General: added <code>\@pre@hyperref</code>	57
added support for <code>pdfx-1a</code>	87
<code>pdfxa</code> : new	87
preface: changed the chapter to an	
unnumbered one	92
1.14 (2012-04-24)	
<code>\booktableofcontents</code> : reset page	
headers at end of toc	78
<code>\booktocpostamble</code> : new	78
<code>\getTZh</code> : fixed for times zones other than	
Z	89
<code>\jmlrbook@info</code> : new	91
1.15 (2012/05/12)	
<code>\markleft</code> : new	114
<code>\ps@jmlrbook</code> : removed dependence on	
<code>\ps@headings</code> (made consistent with	
article page style)	114
<code>\theHalgocf</code> : new	100
<code>\zeroextracounters</code> : added <code>algotcf</code> and	
definition to reset	100
<code>\@post@hyperref</code> : new	91
1.17 (2012/05/30)	
<code>\@write@jmlr@apdimport</code> : new	104
<code>\@jmlr@apdimport</code> : new	104
<code>\@jmlrpages</code> : changed initial definition	
to use <code>\providecommand</code>	69
<code>\@jmlrpublished</code> : changed initial	
definition to use <code>\providecommand</code> .	69
<code>\@jmlrsubmitted</code> : changed initial	
definition to use <code>\providecommand</code> .	69
<code>\@jmlrvolume</code> : changed initial definition	
to use <code>\providecommand</code>	69
<code>\@jmlrworkshop</code> : changed initial	
definition to use <code>\providecommand</code> .	70
<code>\@jmlryear</code> : changed initial definition to	
use <code>\providecommand</code>	69
<code>\bf</code> : added redefinition to produce	
obsolete warning	82
<code>\bookappendix</code> : added def	
<code>\@write@jmlr@import</code>	80
<code>\importpaper</code> : disable <code>\jmlrvolume</code> ,	
<code>\jmlryear</code> and <code>\jmlrworkshop</code> in	
imported papers	107
<code>\it</code> : added redefinition to produce	
obsolete warning	82
<code>\logo</code> : added optional argument	95
<code>\rm</code> : added redefinition to produce	
obsolete warning	83
<code>\sc</code> : added redefinition to produce	
obsolete warning	83
<code>\sf</code> : added redefinition to produce	
obsolete warning	83
<code>\titletag</code> : new	60
<code>\tt</code> : added redefinition to produce	
obsolete warning	83
1.17 (2012/15/28)	
<code>\importarticle</code> : set title page style for	
imported articles to <code>articlet</code> style ...	109
1.18 (2013-10-17)	
<code>\@begintheorem</code> : new	50
<code>\@jmlrbegindoc</code> : patched to work with	
<code>auxhook</code>	103
<code>\@opargbegintheorem</code> : new	51
<code>\@othm</code> : new	50
<code>\@xthm</code> : new	50
<code>\@ythm</code> : new	50
General: now requires <code>calc</code> package	53
now requires <code>etoolbox</code> package	53

removed \ds@draft	58	1.24 (2017-08-01)	
\booklinebreak: new	74, 95	General: added jmlrutils	57
final: new	53, 85	\jmlrBlackBox: new	48
\newtheorem: new	49	\jmlrQED: changed to use \par	48
draft: new	53, 85	\objectref: changed	
\theorembodyfont: new	48	\DeclareRobustCommand to	
\theoremheaderfont: new	48	\newrobustcmd	38
\theorempostheader: new	49	1.25 (2020-01-17)	
\theoremsep: new	49	\@jmlr@new@Ginclude@graphics: new	72
1.19 (2014-09-29)		\@jmlr@old@Ginclude@graphics: new	71
General: replaced \usepackage with		General: added check for graphics.sty	
\RequirePackage	57	version	71
1.19 (2014/09/29)		\proofname: new	48
signoff: added \nopagebreak	98	1.26 (2020-01-31)	
preface: changed to unstarred chapter .	92	\@jmlrmaketitle: added	
1.20 (2014/10/15)		\ignorespaces	66
\addr: initialised to nothing	63	removed vbox	66
\jmlr@author: new	61	1.27 (2020-03-26)	
\jmlr@date: new	70	General: added check for L ^A T _E X kernel	
\jmlr@title: new	60	version	42, 44
\jmlr@workshop: new	70	1.28 (2020-09-21)	
\jmlrauthorhook: changed \let to		General: pass twoside to article.cls	56
\def	93	oneside: pass option to jmlr.cls	87
\jmlrbook@location: new	91	\thanks: switched to using mpfootnote	
\jmlrlocation: new	94	to avoid clashing with document	
\jmlrprefacefile: new	85	footnotes	59
\jmlrprefaceheader: new	86	twoside: pass option to jmlr.cls	87
\jmlrtitlehook: changed \let to \def	93	1.29 (2022-01-29)	
1.21 (2015-02-24)		\@jmlr@check@warn: new	81
\@jmlr@check@packages: Added check		\@jmlrenddoc: added float barrier	67
for jmlr2e package	82	General: added placeins	56
wcp: No longer changes preface header ..	86	added cleveref option	55
signoff: added \nopagebreak	99	replaced \hsize with \linewidth ...	40
\jmlrcheckforpseudocode: Added		\algocfconts: remove use of	
check for pseudocode package	83	algorithm2e internal commands	40
\jmlrQED: new	48	\ifjmlrcleveref: new	36
\orgvec: new	47	\jmlralgorule: new	40
nowcp: No longer changes preface header	86	\jmlrminsubcaptionwidth: new	43
\thanks: added optional argument to		\subfigure: added	
\footnotetext	59	\jmlrminsubcaptionwidth	
1.22 (2015/04/11)		comparison	43
oneside: new	55, 87	\subtable: added	
twoside: new	55, 87	\jmlrminsubcaptionwidth	
1.23 (2017-03-09)		comparison	46
\jmlrpmlr: new	55	1.30 (2022-02-09)	
pmlr: new	86	lemma: fixed counter name	51

Index

Numbers written in *italic* refer to the page where the corresponding entry is described; numbers underlined refer to the code line of the definition; numbers in *roman* refer to the code lines where the entry is used.

Symbols		
\#	88	\@currentlabel 102
\%	90, 96	\@currentlabelname 67, 102, 105
&	55, 62, 65, 88, 90, 105, 107, 108	\@date 70
\@@@	102	\@editor 66, 67
\@@par	59	\@editorialteam ... 98, 99
\@write@jmlr@apdimport		\@edname 63, 67
.....	80	\@ehc 72, 74
\@write@jmlr@import	104	\@email 66
\@Alph	80	\@empty ... 38, 43, 45, 46, 61, 62, 64–68, 88, 93– 96, 98, 99, 102, 105–107
\@M	76, 77, 80	\@endauthor 63, 66
\@Xpagerefstar	101	\@enddocumenthook ... 103
\@Xrefstar	101	\@endeditor 63, 66
\@addtoreset	42, 44, 75	\@enumctr 47
\@afterheading	75, 76	\@enumdepth 47
\@afterindentfalse	75, 78	\@esphack 102
\@arabic	74	\@evenfoot 68, 69, 114
\@articlepagesref	106	\@evenhead .. 62, 68, 69, 114
\@artpart	78, 79	\@extra@b@citeb 91, 105, 106, 108
\@author	61, 62, 66, 93, 94, 96	\@extra@binfo 105, 106, 108
\@authorlist	64, 65	\@firstauthor 62, 64, 106, 108, 109
\@auxout	60, 61, 70, 87, 90, 94, 103	\@firstoffive 101, 102
\@bchar	90	\@firstoftwo 41
\@begindocumenthook	103	\@firstsurname 62, 64, 106, 108, 109
\@beginmainauxhook	103	\@for ... 38, 43, 45, 65, 71–73
\@begintheorem	50	\@forenames 64, 66
\@bookpart	79	\@getinitial 64
\@bsphack	102	\@gobble 62, 88, 90, 91, 104, 107
\@capttype	40	\@gobbletwo 68, 69, 114
\@chapapp	74–76, 80, 110	\@highpenalty 77, 109, 111–113
\@chapter	75	
\@chaptoclabel	75	
\@curparthead	110, 113, 115	
\@curr@file	72, 73	
\@currentHref	101, 102	
		\@ifl@t@r 42, 44
		\@ifpackageafter 74
		\@ifpackageafterloaded 41, 81–83
		\@ifstar 49, 101
		\@ifundefined 37, 40, 53, 57, 67, 72, 74, 87, 93, 100, 103
		\@importarticle .. 103, 108
		\@importdir 105–109
		\@importfile 105–109
		\@importpaper 103, 106
		\@importpubpaper . 103, 105
		\@initial 64
		\@initials 64–66
		\@issue 94
		\@jmlr@apdimport 104
		\@jmlr@authors 62, 67, 70, 105–109
		\@jmlr@authors@sep 61, 62, 65, 104, 105, 107, 108
		\@jmlr@aux@author 61
		\@jmlr@aux@sauthor ... 61
		\@jmlr@check@packages 82
		\@jmlr@check@warn .. 81, 82
		\@jmlr@currentthm .. 50, 51
		\@jmlr@filename@ext 72, 73
		\@jmlr@ifgraphicxloaded 41
		\@jmlr@import 104
		\@jmlr@namelist 65
		\@jmlr@new@Gininclude@graphics 74
		\@jmlr@old@Gininclude@graphics 74
		\@jmlr@reflistlastsep 37, 38, 43, 45

<code>\@jmlr@reflistsep</code>	<code>\@objectname</code> 38, 43, 45	<code>\@shortauthor</code>
..... 37, 38, 43, 45	<code>\@objectref</code> 38, 43, 45	..... 61, 62, 64, 65,
<code>\@jmlr@restore</code> ... 103, 104	<code>\@oddfloat</code> 68, 69, 114	69, 94, 106, 108, 109, 114
<code>\@jmlr@tmp</code>	<code>\@oddfloat</code> 68, 69, 114	<code>\@shorttitle</code> 60,
..... 64	<code>\@onelevel@sanitize</code> ..	67, 69, 93, 105–109, 114
<code>\@jmlrabbrname</code> .....	..... 61, 101, 102	<code>\@signoffdate</code> 98, 99
..... 65	<code>\@opargbegintheorem</code> .. 50	<code>\@spart</code>
<code>\@jmlrabbrvproceedings</code>	<code>\@openrighttrue</code> 92	..... 79
..... 55, 105, 107	<code>\@org@Ginclude@graphics</code>	<code>\@startauthor</code>
<code>\@jmlrauthors</code> 62,	..... 71, 72	..... 63
64, 65, 70, 106, 108, 109	<code>\@org@InputIfFileExists</code>	<code>\@starteditor</code> 63, 66
<code>\@jmlrbegindoc</code> 103	..... 103, 106, 107, 109	<code>\@startsection</code>
<code>\@jmlrenddoc</code> 56, 103	<code>\@org@LoadClass</code> 91	..... 58
<code>\@jmlrissue</code>	<code>\@org@c@clenddoca</code> 91	<code>\@starttoc</code>
..... 68, 69, 94, 105, 107	<code>\@p@subfigure</code> 42	..... 78
<code>\@jmlrlocation</code>	<code>\@p@subtable</code> 44	<code>\@subfigcap</code>
..... 94	<code>\@parsename</code> 64, 66	..... 43, 44
<code>\@jmlrmaketitle</code>	<code>\@parsenamenoop</code> 64	<code>\@subfigure</code>
..... 62	<code>\@part</code> .....	..... 43
<code>\@jmlrpages</code> 68, 69, 105, 106	<code>\@partapp</code> 79, 110, 111	<code>\@subfigurelabel</code> 42
<code>\@jmlrproceedings</code> .. 55, 68	<code>\@parttoclabel</code> 79, 80	<code>\@subfloatcapbox</code> 43, 44, 46
<code>\@jmlrpublished</code> 68, 70	<code>\@pctchar</code>	<code>\@subfloatcontsbox</code> . 44, 46
<code>\@jmlrsubmitted</code> 68, 69	<code>\@pdfcreator</code>	<code>\@subtabcap</code>
<code>\@jmlrvolume</code>	<code>\@plus</code> .. 58, 77, 109, 111–113	..... 46
..... 68, 69, 94, 96, 105, 107	<code>\@pnumwidth</code> 77, 109, 111–113	<code>\@subtable</code>
<code>\@jmlrworkshop</code> .. 68, 70, 94	<code>\@post@hyperref</code> 37, 57	..... 46
<code>\@jmlryear</code> . 67–69, 106, 107	<code>\@pre@hyperref</code> 37, 57	<code>\@subtablelabel</code> 44, 45
<code>\@latex@error</code>	<code>\@prefaceeditor</code> 99	<code>\@subtabref</code>
..... 72–74	<code>\@prefaceend</code> 92	..... 45
<code>\@latex@warning</code> 102	<code>\@prefacefile</code> 92	<code>\@subtitle</code>
<code>\@listctr</code>	<code>\@prefacestart</code> 92	..... 94, 96
..... 47	<code>\@prevsep</code> 38, 43, 45	<code>\@surname</code>
<code>\@logo</code>	<code>\@productioneditor</code> ... 95	..... 63–66
..... 95, 96	<code>\@productioneditorname</code>	<code>\@team</code>
<code>\@logo@tmp</code> .....	..... 95, 98	..... 94
..... 95	<code>\@reprint</code> 67, 68, 113	<code>\@tempboxa</code>
<code>\@mainauxout</code> 92, 99, 102–104	<code>\@restonecolfalse</code> 78	..... 71
<code>\@mainmatterfalse</code> .. 77, 78	<code>\@restonecoltrue</code> 78	<code>\@tempdima</code>
<code>\@mainmattertrue</code> ... 53, 77	<code>\@sartpart</code> .....	..... 44,
<code>\@makecaption</code>	<code>\@sauthor</code> .. 61, 62, 64, 93, 94	46, 59, 77, 109, 111–113
..... 41	<code>\@sbookpart</code>	<code>\@tempdimb</code>
<code>\@makechapterhead</code> 75	<code>\@schapter</code> .....	..... 44, 46
<code>\@makeschapterhead</code> ... 76	<code>\@secondoffive</code> ... 101, 102	<code>\@tempdimc</code>
<code>\@maketitle</code>	<code>\@secondoftwo</code> 41	..... 79
..... 62	<code>\@setXref</code>	<code>\@tempdimd</code>
<code>\@markleft</code>	<code>\@setimportlabel</code> 103	..... 44, 46
..... 115	<code>\@setpar</code>	<code>\@tempdimf</code>
<code>\@minus</code> .....	..... 59	..... 79
..... 58	<code>\@sbracket</code>	<code>\@tempdimg</code>
<code>\@mkboth</code>	<code>\@shortauthor</code> .....	..... 44, 46
..... 68, 69, 78, 110, 113–115	..... 61, 62, 64, 65,	<code>\@tempdimh</code>
<code>\@mparswitchfalse</code> 55	69, 94, 106, 108, 109, 114	..... 79
<code>\@mparswitchtrue</code> ... 55, 58	<code>\@shorttitle</code> 60,	<code>\@tempdimi</code>
<code>\@name</code>	67, 69, 93, 105–109, 114	..... 41, 79
..... 65	<code>\@signoffdate</code> 98, 99	<code>\@tempdimj</code>
<code>\@nameuse</code>	<code>\@spart</code> .....	..... 115
..... 93	..... 79	<code>\@tempdimk</code>
<code>\@ne</code>	<code>\@startauthor</code> .....	..... 59, 62, 97
..... 47, 59	..... 63	<code>\@tempdiml</code>
<code>\@new@articleauthor</code> . 104	<code>\@starteditor</code> 63, 66	..... 115
<code>\@nextparsename</code> 64	<code>\@startsection</code>	<code>\@thanks</code>
<code>\@nil</code> 43, 45, 64, 66, 102	..... 58	..... 59
<code>\@nmbbrlisttrue</code>	<code>\@starttoc</code>	<code>\@themark</code>
..... 47	..... 78	..... 115
<code>\@nnil</code>	<code>\@subfigcap</code>	<code>\@theorembodyfont</code> .. 48–51
..... 63	..... 43, 44	<code>\@theoremheaderfont</code> 48–51
	<code>\@subfigure</code>	<code>\@theorempostheader</code> 49–51
	..... 43	<code>\@theoremsep</code>
	<code>\@subfigurelabel</code> 42	..... 49–51
	<code>\@subfloatcapbox</code> 43, 44, 46	<code>\@thislabel</code> 38, 43, 45
	<code>\@subfloatcontsbox</code> . 44, 46	<code>\@thisname</code>
	<code>\@subtabcap</code> .....	..... 65
	..... 46	<code>\@title</code>
	<code>\@subtable</code>	60, 62, 66,
	<code>\@subtablelabel</code> 44, 45	93, 96, 97, 105, 107, 108
	<code>\@subtabref</code>	<code>\@titlefoot</code>
	..... 45	..... 62, 68
	<code>\@subtitle</code>	<code>\@tmp</code>
	..... 94, 96	..... 63
	<code>\@surname</code>	<code>\@toodeep</code>
	..... 63–66	..... 47
	<code>\@team</code>	<code>\@topnewpage</code>
	..... 94	..... 75, 76
	<code>\@tempboxa</code>	<code>\@topnum</code>
	..... 71	..... 75
	<code>\@tempdima</code>	<code>\@twosidefalse</code>
	..... 44,	..... 55
	46, 59, 77, 109, 111–113	<code>\@twosidetrue</code>
	<code>\@tempdimb</code> .....	..... 55, 87
	..... 44, 46	
	<code>\@tempdimc</code>	
	..... 79	
	<code>\@tempdimd</code>	
	..... 41, 79	
	<code>\@temptokena</code>	
	..... 115	
	<code>\@thanks</code>	
	..... 59, 62, 97	
	<code>\@thefnmark</code>	
	..... 59	
	<code>\@themark</code>	
	..... 115	
	<code>\@theorembodyfont</code> .. 48–51	
	<code>\@theoremheaderfont</code> 48–51	
	<code>\@theorempostheader</code> 49–51	
	<code>\@theoremsep</code>	
	..... 49–51	
	<code>\@thislabel</code> 38, 43, 45	
	<code>\@thisname</code>	
	..... 65	
	<code>\@title</code>	
	60, 62, 66,	
	93, 96, 97, 105, 107, 108	
	<code>\@titlefoot</code>	
	..... 62, 68	
	<code>\@tmp</code>	
	..... 63	
	<code>\@toodeep</code>	
	..... 47	
	<code>\@topnewpage</code>	
	..... 75, 76	
	<code>\@topnum</code>	
	..... 75	
	<code>\@twosidefalse</code>	
	..... 55	
	<code>\@twosidetrue</code>	
	..... 55, 87	

7x10	26 , 85	<code>\cs</code>	57	<code>\ELSE</code>	83 , 84
<code>\cleveref</code>	6	<code>\cslet</code>	49 , 50	<code>\else</code>	38 , 43 – 47 , 51 , 52 , 54 , 56 , 59 , 61 – 66 , 68 , 71 – 76 , 78 – 80 , 87 , 89 , 91 – 93 , 95 , 96 , 99 , 102 , 103 , 105 – 107
<code>color</code>	6 , 26	<code>\csname</code>	40 , 50 , 59 , 72 , 74 , 80 , 82 , 91 , 95 , 96 , 101 , 102 , 104	<code>\Email</code>	9 , 63
<code>gray</code>	6 , 24 , 26	<code>\csuse</code>	49	<code>\email</code>	63
<code>html</code>	86	<code>\CurrentOption</code>	53 , 56 , 85 – 87	<code>\emph</code>	43 , 45 , 62 , 99
<code>letterpaper</code>	26 , 85	<code>\currfile package</code>	85	<code>\end</code> ...	41 , 44 , 46 , 63 , 71 , 88 , 89 , 97 – 99 , 101 , 104
<code>nocleveref</code>	6	<code>\currfilepath</code>	85	<code>\end@getinitial</code>	64
<code>nohtml</code>	86	D		<code>\end@parsename</code> ..	63 , 64 , 66
<code>nowcp</code>	4 , 6 , 25 , 86	<code>\D</code>	87	<code>\endcsname</code>	40 , 50 , 59 , 72 , 74 , 80 , 82 , 91 , 95 , 96 , 101 , 102 , 104
<code>onecolumn</code>	6	<code>\DeclareMathOperator</code> .	22	<code>\ENDFOR</code>	83 , 84
<code>pdfxa</code>	87	<code>\DeclareOption</code>	36	<code>\endgroup</code>	41 , 62 , 72 , 74 , 77 , 90 , 101 , 102 , 109 , 111 – 113 , 115
<code>pmlr</code>	4 , 6 , 25 , 86	<code>\DeclareOptionX</code>	53 – 56 , 85 – 87	<code>\endlist</code>	47
<code>tablecaption</code>	14	<code>\DeclareRobustCommand</code>	82 , 101	<code>\endtrivlist</code>	49
<code>bottom</code>	6 , 26	<code>\DecMargin</code>	115	<code>\enskip</code>	59
<code>top</code>	6 , 26	<code>\decmargin</code>	115	<code>\enspace</code>	63
<code>tablecaptionbottom</code> ...	86	<code>\def</code>	38 , 41 – 43 , 45 – 47 , 50 , 54 , 60 – 76 , 78 – 81 , 87 – 91 , 93 – 95 , 98 – 110 , 114 , 115	<code>\ensuremath</code>	46
<code>tablecaptiontop</code>	86	<code>\define@boolkey</code>	87	<code>enumerate*</code> (environment)	16
<code>twocolumn</code>	6 , 32	<code>\define@choicekey</code>	54	environments:	
<code>wcp</code>	4 , 6 , 7 , 25 , 86	<code>\definitionref</code>	20	<code>abstract</code>	10
<code>\ClassError</code>	63 , 75 , 81 , 82 , 90 , 106 , 108 , 109	<code>\definitionrefname</code> .	38 , 39	<code>algorithm</code>	16
<code>\ClassWarning</code> ..	54 , 82 , 85 , 93	<code>\definitionsrefname</code> ..	38 , 39	<code>algorithm2e</code>	16
<code>\cleardoublepage</code>	75 , 77 – 79 , 105 , 109 , 110	<code>\detokenize</code>	72	<code>altdescription</code>	17
<code>\clearpage</code>	75 , 78 , 79	<code>\dimexpr</code>	41	<code>authorsignoff</code>	28
<code>\cleveref package</code> ..	12 , 13 , 36 , 37	<code>\do</code>	38 , 43 , 45 , 65 , 71 – 73	<code>enumerate*</code>	16
<code>\clubpenalty</code>	58	<code>\doConvDate</code>	89	<code>jmlrpapers</code>	31
<code>combine class</code>	4 , 34 , 53 , 56 , 63 , 74 , 91 , 101	<code>\Doi</code>	88	<code>keywords</code>	11
<code>combnat package</code>	91	<code>\DontPrintSemicolon</code> .	115	<code>preface</code>	28
<code>\COMMENT</code>	83 , 84	<code>\dontprintsemicolon</code> .	115	<code>signoff</code>	29
<code>\conjectureref</code>	20	<code>\doublespacing</code>	98	<code>epsfig package</code>	5
<code>\conjecturerefname</code> .	38 , 39	E		<code>\equationref</code>	19
<code>\conjecturesrefname</code> ..	38 , 39	<code>\edef</code> ..	64 , 72 , 73 , 87 – 90 , 101 , 102	<code>\equationrefname</code> ...	37 , 38
<code>\contentsline</code>	105 , 107 , 108 , 111	<code>\Editor</code>	29 , 98 , 99	<code>\equationsrefname</code> ..	37 , 38
<code>\contentsname</code>	78	<code>\editor</code>	8	<code>etoolbox package</code>	36
<code>\convDate</code>	89 , 90	<code>\editorname</code>	67	<code>\evensidemargin</code>	56
<code>\convertDate</code>	87 , 90	<code>\editors</code>	8	<code>\exampleref</code>	21
<code>\Copyright</code>	88	<code>\editorsname</code>	67	<code>\examplerefname</code>	38 , 39
<code>\copyright</code>	67	<code>\egroup</code>	44 , 59 , 60 , 66 , 106 , 108 , 109	<code>\examplesrefname</code> ...	38 , 39
<code>\corollaryref</code>	20	<code>\eightchars</code>	88 , 89	<code>\ExecuteOptions</code>	56
<code>\corollaryrefname</code> ..	38 , 39	<code>\eighttofnine</code>	88	<code>\expandafter</code>	42 , 44 , 64 , 65 ,
<code>\corollarysrefname</code> ..	38 , 39				
<code>\CoverDate</code>	88				
<code>\CoverDisplayDate</code>	88				
<code>\Creator</code>	88				
<code>\CreatorTool</code>	88				
<code>\crefname</code>	51 , 52				

<code>\ifnum</code>	47, 75–77, 80, 87, 111–113	<code>\jmlr@this@theoremheader</code>	.....	50, 51	<code>\jmlrproceedings</code>	26, 55, 108
<code>\ifprint</code>	23, 71–73	<code>\jmlr@this@theoremshaded</code>	.....	50, 51	<code>\jmlrQED</code>	48
<code>\ifstrempy</code>	41	<code>\jmlr@this@theoremsep</code>	.....	50, 51	<code>\jmlrsubmitted</code>	7, 108
<code>\iftablecaptiontop</code> ...	54	<code>\jmlr@title</code>	60	<code>\jmlrtitlehook</code>	60	
<code>\IfTitleElement</code>	33, 97	<code>\jmlr@workshop</code>	70	jmlrutils package	4, 6, 10, 12, 53, 54, 57, 71	
<code>\ifundef</code>	40	<code>\jmlralgorule</code>	40	<code>\jmlrutilsmathsfalse</code> .	36	
<code>\ifviiXx</code>	56	<code>\jmlrarticlecommands</code> .	.....	<code>\jmlrutilsmathstrue</code> ..	36	
<code>\ifvmode</code>	115	.....	81, 103	<code>\jmlrutilssubfloatsfalse</code>	.....	36
<code>\ifx</code> .	38, 43, 45, 46, 61–66, 68, 71–74, 89, 93, 95, 96, 98, 99, 102, 105–107	<code>\jmlrauthorhook</code>	61	<code>\jmlrutilssubfloatstrue</code>	.....	36
<code>\ignorespaces</code>	50, 59, 60, 66, 70, 71, 98, 99	<code>\jmlrBlackBox</code>	48	<code>\jmlrutilstheoremsfalse</code>	.....	36
<code>\immediate</code>	90	jmlrbook class	48, 81	.....	36	
<code>\import</code>	106, 107, 109	jmlrbook package	34	<code>\jmlrutilstheoremstrue</code>	36	
<code>\importarticle</code>	31, 103	<code>\jmlrbook@info</code>	87, 90	<code>\jmlrvolume</code>	6, 107, 108	
<code>\importpaper</code>	31, 103	<code>\jmlrbook@location</code> ...	94	<code>\jmlrwcp</code>	25, 55	
<code>\importpubpaper</code> ...	31, 103	<code>\jmlrbookcommands</code> ...	115	jmlrwcp2e package	4–6, 8	
<code>\includegraphics</code> ...	14, 81	<code>\jmlrbox</code>	62	<code>\jmlrworkshop</code>	7, 107	
<code>\includeteximage</code>	14	<code>\jmlrclevereffalse</code> ...	36	<code>\jmlrwritepdfinfo</code> ....	.....	87, 90, 91, 103
<code>\IncMargin</code>	115	<code>\jmlrclevereftrue</code>	36	.....	87, 90, 91, 103	
<code>\incmargin</code>	115	<code>\jmlrgrayscale</code>	87	<code>\jmlryear</code>	7, 107, 108	
<code>\index</code>	104, 114	<code>\jmlrhtmlfalse</code>	54	<code>\jobname</code>	60, 89–91	
<code>\input</code>	41, 90	<code>\jmlrhtmlmaketitle</code> ...	62	<code>\Journalnumber</code>	88	
<code>\input@path</code>	41, 71, 72	<code>\jmlrhtmltrue</code>	54	<code>\Journaltitle</code>	88	
inputenc package	34	<code>\jmlrimporthook</code> .....	.....		
<code>\InputIfFileExists</code> ...	.....	.....	106, 107, 109			
.....	90, 103, 106–108	<code>\jmlrissue</code>	107			
<code>\interauthorskip</code> ...	60, 63	<code>\jmlrlength</code>	62	<code>\kern</code>	40	
<code>\interlinepenalty</code> ....	.....	<code>\jmlrlocation</code> .....	27	<code>\Keywords</code>	88	
.....	76, 77, 80	<code>\jmlrmaketitle</code>	63, 95	keywords (environment) .	11	
<code>\Issue</code>	88	<code>\jmlrmaketitlehook</code> ...	.....		
<code>\issue</code>	94	.....	62, 105, 106, 108			
<code>\item</code>	49–51, 71	<code>\jmlrminsubcaptionwidth</code>	.....	<code>\l@chapter</code>	77	
<code>\itshape</code>	48, 58, 63, 71, 98, 112, 114	.....	15, 44, 46	<code>\label</code>	40, 54, 62, 67, 103–106, 108, 114	
		<code>\jmlrnwcp</code>	25, 55	<code>\labelenumi</code>	47	
		<code>\jmlrpages</code>	105–108	<code>\labelsep</code>	47, 49–51, 71	
		jmlrpapers (environment)	31	<code>\labelwidth</code>	47, 71	
		<code>\jmlrpdfxafalse</code>	87	<code>\LARGE</code>	71, 97	
		<code>\jmlrpmlr</code>	25, 55	<code>\Large</code>	63, 98, 110	
		<code>\jmlrpostauthor</code>	66	<code>\large</code> 58, 59, 77, 109, 111, 112		
		<code>\jmlrposttitle</code>	66	<code>\Lastpage</code>	88	
		<code>\jmlrpreauthor</code>	66	<code>\laststring</code>	89	
		<code>\jmlrprefaceheader</code> ...	92	<code>\leavevmode</code> .....	.....
		<code>\jmlrprefacepath</code> ...	85, 92	.....	77, 78, 109, 111–113	
		<code>\jmlrprefacepath</code> ...	85, 92	<code>\leftmargin</code>	47, 71	
		<code>\jmlrprehyperref</code> .....	.....	<code>\leftmark</code> .....	114	
		.....	4, 37, 57, 85	<code>\leftskip</code> .....	.....
		<code>\jmlrpmaketitlehook</code>	61	<code>\leftskip</code> .....	.....
		<code>\jmlrpretile</code>	66	.....	59, 60, 77, 109, 111–113	

K

<code>\kern</code>	40
<code>\Keywords</code>	88
keywords (environment) .	11

L

<code>\l@chapter</code>	77
<code>\label</code>	40, 54, 62, 67, 103–106, 108, 114
<code>\labelenumi</code>	47
<code>\labelsep</code>	47, 49–51, 71
<code>\labelwidth</code>	47, 71
<code>\LARGE</code>	71, 97
<code>\Large</code>	63, 98, 110
<code>\large</code> 58, 59, 77, 109, 111, 112	
<code>\Lastpage</code>	88
<code>\laststring</code>	89
<code>\leavevmode</code>
.....	77, 78, 109, 111–113
<code>\leftmargin</code>	47, 71
<code>\leftmark</code>	114
<code>\leftskip</code>
.....	59, 60, 77, 109, 111–113

<code>\lemmaref</code>	20	<code>\mdseries</code>	58, 63, 113	<code>\normalfont</code>	47, 48, 58, 63, 76, 77, 80, 111, 112
<code>\lemmarefname</code>	37, 39	<code>\MessageBreak</code>	81, 82	<code>\normalsize</code>	58, 63, 111–113
<code>\lemmasrefname</code>	37, 39	<code>\morefrontmatter</code>	77	<code>\NOT</code>	83, 84
<code>\let</code>	37, 38, 41, 43, 45, 47, 49– 51, 61–64, 67–69, 71– 75, 77–79, 81–84, 88– 91, 93, 94, 96, 97, 100, 102–105, 107, 109, 114	<code>\moremainmatter</code>	77	<code>\nr</code>	54
<code>\letcs</code>	50, 51	N		<code>ntheorem</code> package	48
<code>\linebreak</code>	95	<code>\Name</code>	8, 63	<code>\null</code>	67, 76, 79, 80, 97, 109, 110
<code>\LinesNotNumbered</code> ...	116	<code>\name</code>	63	<code>\number</code>	59
<code>\linesnotnumbered</code> ...	116	<code>\nameref</code>	93	<code>\numberline</code>	75, 80, 111, 112
<code>\LinesNumbered</code>	116	<code>\nameref</code> package	4	O	
<code>\linesnumbered</code>	116	<code>\nametag</code>	8, 63–65	<code>\OBJ@CVR</code>	90
<code>\LinesNumberedHidden</code>	116	<code>\NAT@date</code>	91	<code>\objectref</code>	38–40, 93
<code>\linesnumberedhidden</code>	116	<code>\NAT@index</code>	91	<code>\obsoletefontcs</code>	82, 83
<code>\linewidth</code> ..	41, 92, 99, 112	<code>\NAT@parse@date</code>	91	<code>\oddsidemargin</code>	56
<code>\list</code>	47	<code>\NAT@split</code>	91	<code>\onecolumn</code>	78, 79, 103
<code>\llap</code>	47	<code>\NAT@temp</code>	91	<code>\operatorname</code>	22
<code>\LoadClass</code>	56, 91	<code>\NAT@temp</code>	91	<code>\OR</code>	83, 84
<code>\logo</code>	27	<code>natbib</code> package	4, 12, 91	<code>\or</code>	54
<code>\long</code>	71	<code>\NeedsTeXFormat</code>	53, 84	<code>\Org</code>	88
<code>\ltx@label</code>	102	<code>\newaliascnt</code>	51, 52	<code>\orgvec</code>	21
M		<code>\newcommand</code>	37– 50, 54, 55, 59–71, 74– 82, 85–87, 89, 91–98, 101, 103–106, 108–115	<code>\overfullrule</code>	85
<code>\m@ne</code>	75–77, 111–113	<code>\newcounter</code> .	42, 44, 74, 109	P	
<code>\mailto</code>	10	<code>\newenvironment</code> ...	40, 47–49, 60, 92, 98, 99, 103	<code>\p@</code>	75–77, 79, 109–113
<code>\mainauthorfont</code>	96	<code>\newif</code>	36, 37, 53, 54, 56, 85, 91, 92	package options:	
<code>\mainlogofont</code>	96	<code>\newlabel</code>	102	<code>cleveref</code>	12
<code>\mainmatter</code>	29	<code>\newlength</code> ...	43, 60, 61, 76	<code>maths</code>	12, 21
<code>\mainproductioneditorfont</code>	96	<code>\newline</code>	60, 96	<code>nocleveref</code>	13
<code>\mainsubsectionfont</code>	96	<code>\newpage</code>	80, 110	<code>nomaths</code>	12, 21
<code>\mainteamfont</code>	96	<code>\newrobustcmd</code>	38	<code>nosubfloats</code>	13, 14
<code>\maintitle</code>	96, 97	<code>\newsavebox</code>	43, 62	<code>notheorems</code>	12, 17
<code>\maintitlefont</code>	96	<code>\newtheorem</code>	18, 51, 52	<code>subfloats</code>	13
<code>\mainvolumefont</code>	96	<code>\newtheorem*</code>	18	<code>tablecaption</code>	13
<code>makejmlrbook</code>	92, 104	<code>\nfss@text</code>	102	<code>theorems</code>	12
<code>makejmlrbookgui</code>	27, 29, 31, 34, 86, 104	<code>\NLSty</code>	116	<code>\PackageError</code>	41
<code>\makelabel</code>	47	<code>\nlSty</code>	116	<code>\pagenumbering</code>	77, 97
<code>\maketitle</code>	7, 28, 62	<code>\nobreak</code>	76, 77, 79, 109–113, 115	<code>\pageref</code>	69, 93, 103
<code>\MakeUppercase</code>	78	<code>\nobreakspace</code>	79, 110	<code>\pagerule</code>	111
<code>\marginparwidth</code>	56	<code>\NoCaptionOfAlgo</code>	116	<code>\pagestyle</code> .	69, 97, 104, 115
<code>\mark</code>	115	<code>\nocaptionofalgo</code>	116	<code>\paperheight</code>	56
<code>\markboth</code>	80, 86, 114	<code>\noexpand</code>	59, 65, 101	<code>\paperwidth</code>	56
<code>\mathcal</code>	46	<code>\noindent</code> .	48, 59, 60, 62, 63, 66, 70, 71, 92, 97–99	<code>\par</code>	40, 48, 54, 59– 61, 63, 66, 71, 74, 76– 80, 92, 97–99, 109–113
<code>\mbox</code>	49–51	<code>\nolinkurl</code>	100	<code>\paragraph</code>	30
		<code>\nopagebreak</code>	99	<code>\parbox</code>	41, 44, 46, 112
				<code>\parfillskip</code>	77, 109, 111–113

\unrestored@protected@xdef	115				
\unskip	63				
\UNTIL	83, 84				
\upshape	48, 63				
\url	10				
url package	4, 10				
\usebox	44, 46				
\uuid	89				
V					
\val	54				
\value	59				
\vbox	111				
\vec	21, 47				
\vfil	79, 80, 110				
\vfill	98				
\viiXxfalse	56				
\viiXxtrue	56				
\voffset	56				
\Volume	88				
\volume	27				
\vskip	40, 54, 59, 60, 63, 66, 71, 76, 77, 79, 97–99, 109–113				
\vspace	59, 76				
W					
\wd	71				
\WHILE	83, 84				
\widowpenalty	58				
X					
\x	101				
\xappto	59				
xcolor package	4, 24				
\xDay	87, 89				
\xdef	80, 88, 89, 91				
\xHour	87, 89				
xkeyval package	5, 53, 84				
\Xlabel	103				
\xMin	87, 89				
\xMonth	87, 89				
\xmpAmp	88, 90				
\xmpAuthor	87, 88, 90, 94				
\xmpAuthoritativeDomain	88				
\xmpCopyright	88				
\xmpCoverDate	88				
\xmpCoverDisplayDate	88				
\xmpCreator	88				
\xmpCreatorTool	88				
\xmpdocid	89				
\xmpDoi	88				
\xmpFirstpage	88				
\xmpinstid	89				
\xmpIssue	88, 94				
\xmpJournalnumber	88				
\xmpJournaltitle	88				
\xmpKeywords	88				
\xmpLastpage	88				
\xmpOrg	88				
\xmpProducer	88, 90				
\xmpSubject	88				
\xmpTitle	87, 88, 90, 93				
\xmpVolume	88, 94				
\Xpageref	103				
\Xprefix	101, 102, 106–109				
\Xref	103, 104				
\xSec	87, 89				
\xTZh	89				
\xTZm	89				
\xTZsign	89				
\xYear	87, 89				
Z					
\Z	87				
\z@	58, 59, 75–77, 109, 111–113				
\zeroextracounters	80				