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
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

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}

\jmlrvolume
\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 \textit{(short title)}. If you want to force a line break in the title, use

\titlebreak
\titlebreak
instead of \texttt{\newline} or \texttt{\\} 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
For example:
\title{An Interesting Paper\titlebreak
With a Line Break\titletag{\thanks{and an
acknowledgement}}}

This specifies the editor's name. If there is more than one editor, use:
\editors{\langle \text{names} \rangle}

This specifies the author. The specifications \textit{(author specs)} are a bit different to jmlr2e and jmlrwcp2e. Use
\Name{\langle \text{abbreviated name} \rangle\{\text{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 \textit{(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{\langle \text{title only stuff} \rangle}

For example:
\Name{Ann Other\nametag{\thanks{formerly with some other institute}}}

Ensure no space occurs before \nametag{\langle \text{title only stuff} \rangle} otherwise the surname will be interpreted as an empty string because the space is used to separate the forenames from the surname.
This specifies the author's email address. It should only be used within the argument to \author.

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

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.

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:

```latex
\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:

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

2.2 Font Changing Commands

Use the \LaTeX\ 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.)

```latex
\url{(address)}
```

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

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

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

```latex
\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

```latex
\begin{abstract}
{text}
\end{abstract}
```

The abstract text should be displayed using the abstract environment.
The keywords should be displayed using the keywords environment.

This displays the acknowledgements.

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:

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

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

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

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 \texttt{jmlr} class automatically loads \texttt{natbib} and sets the bibliography style to \texttt{plainnat}. References should be stored in a \texttt{.bib} file.

\begin{verbatim}
\bibliography{\bib file}
\end{verbatim}

This displays the bibliography.

\citep

\begin{verbatim}
\citep{\textit{pre note}}{\textit{post note}}{\textit{label}}
\end{verbatim}

Use \citep for a parenthetical citation.

\citet

\begin{verbatim}
\citet{\textit{note}}{\textit{label}}
\end{verbatim}

Use \citet for a textual citation.

See the \texttt{natbib} documentation\footnote{http://ctan.org/pkg/natbib} for further details.

2.5 \texttt{jmlrutils} supplementary package

The \texttt{jmlrutils} package is automatically loaded by the \texttt{jmlr} class but may be used with other classes.

2.5.1 Package Options

The following options may be passed to the \texttt{jmlrutils} package if it is to be used without the \texttt{jmlr} class.

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

\textbf{nomaths} Don't define \texttt{\set} and \texttt{\oldvec} and don't redefine \texttt{\vec}.

\textbf{theorems} Define the theorem commands and environments listed in Section 2.5.5. (Default.)

\textbf{notheorems} Don't define the theorem commands and environments.

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

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

or

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

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

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

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

```latex
\floatconts{\label}{\caption command}{\contents}
```

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

```latex
\begin{table}[htbp]
\floatconts{tab:example}{\caption{An Example Table}}{\begin{tabular}{ll}
\textbf{Dataset} & \textbf{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[\textwidth]{images/mypic}

where \texttt{(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.

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

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:

\jmrlminsubcaptionwidth

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

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
{\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*}
\item otherwise
\begin{enumerate*}
\item increment $i$ and return to step\ref{step:locate}
\end{enumerate*}
\end{enumerate*}
\end{enumerate*}
\end{enumerate*}
\end{algorithm}
```

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

```latex
\begin{algorithm2e}
  \caption{Computing Net Activation}
  \label{alg:net}
  \DontPrintSemicolon
  \LinesNumbered
  \KwIn{$x_1, \ldots, x_n, w_1, \ldots, w_n$}
  \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 documentation\footnote{http://ctan.org/pkg/algorithm2e} for more details.

### 2.5.4 Description Lists

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:

```latex
\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:

\footnote{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{\langle name \rangle}{\langle title \rangle}{\langle outer counter \rangle}

or you can define an unnumbered theorem-like environment using:
\newtheorem*{\langle name \rangle}{\langle title \rangle}

where \langle name \rangle is the name of the new environment and \langle title \rangle is the title tag at the start of the environment. In the case of the numbered theorems, \langle counter \rangle is a predefined counter to use with this theorem. If omitted, a new counter called \langle name \rangle will be defined. The final optional argument \langle outer counter \rangle 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{\langle declarations \rangle}
This sets the font declarations used in the body of the theorem. This defaults to \itshape.
\theoremheaderfont{\langle declarations \rangle}
This sets the font declarations used for the theorem title. This defaults to \bfseries.
\theorempostheader{\langle text \rangle}
This indicates what should occur at the end of the title. This defaults to nothing.
\theoremsep{\langle text \rangle}
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:

\begin{theorem}
\upshape
\scshape
\textbf{:}
\newline
\newtheorem*{note}{Note}
\end{theorem}

Now it can be used in the document environment:

\begin{note}
This is an numbered 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{〈label list〉}

Used to refer to a section or sections. For example, if you defined a section as follows:
\begin{chapter}
\text{Results}\label{sec:results}
\end{chapter}
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{〈label list〉}

Used to refer to an appendix or multiple appendices.

\equationref{〈label list〉}

Used to refer to an equation or multiple equations.

\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.
Used to refer to a conjecture or multiple conjectures.

\axiomref
\axiomref{\langle label list \rangle}

Used to refer to an axiom or multiple axioms.

\exampleref
\exampleref{\langle label list \rangle}

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 documentation\(^3\) for further details.

\set
\set{\langle maths \rangle}

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{\langle maths \rangle}

The \vec command is redefined by jmlrutils to use \textbf{\textbackslash 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{\langle maths \rangle}

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
Numbered single-line equations should be displayed using the equation environment. For example:

\begin{equation}
\cos^2\theta + \sin^2\theta \equiv 1
\end{equation}

The above are provided by the \LaTeX kernel but may be adjusted by packages such as amsmath. The commands and environments below are provided by amsmath.

Multi-lined numbered equations should be displayed using the align environment. For example:

\begin{align}
f(x) &= x^2 + x\label{eq:f} \\
f'(x) &= 2x + 1\label{eq:df}
\end{align}

Unnumbered multi-lined equations should be displayed using the align* environment. For example:

\begin{align*}
f(x) &= (x+1)(x-1) \\
&= x^2 - 1
\end{align*}

If you want to mix numbered with unnumbered lines use the align environment and suppress unwanted line numbers with \nonumber. For example:

\begin{align}
y &= x^2 + 3x - 2x + 1\nonumber \\
&= x^2 + x + 1\label{eq:y}
\end{align}

An equation that is too long to fit on a single line can be displayed using the split environment. Text can be embedded in an equation using \text{〈text〉} or you can use \intertext{〈text〉} to interrupt a multi-line environment such as align.

Predefined operator names are listed in table 2.1. For additional operators, either use \operatorname or \DeclareMathOperator. For example

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

or declare it with

\operatorname{〈name〉}

\DeclareMathOperator{〈command)〈name〉}

22
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 ($\operatorname*{\sum}$ or $\DeclareMathOperator*{\sum}$).

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

| \arccos  | \arccos | \deg  | \deg  | \lg  | \lg  | \projlim | \projlim |
| \arcsin  | \arcsin | \det  | \det  | \lim | \lim | \sec  | \sec  |
| \arctan  | \arctan | \dim  | \dim  | \liminf | \liminf | \sin  | \sin  |
| \arg     | \arg    | \exp  | \exp  | \limsup | \limsup | \sinh | \sinh |
| \cos     | \cos    | \gcd  | \gcd  | \ln   | \ln   | \sup  | \sup  |
| \cosh    | \cosh   | \hom  | \hom  | \log  | \log  | \tan  | \tan  |
| \cot     | \cot    | \inf  | \inf  | \max  | \max  | \tanh | \tanh |
| \coth    | \coth   | \injlim | \injlim | \min | \min | \tanh | \tanh |
| \csc     | \csc    | \ker  | \ker  | \Pr  | \Pr  |
| \varlimsup | \lim    | \varinjlim | \lim   | \varliminf | \lim   | \varprojlim | \lim   |

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:

\{
\bfseries\color{red}\text{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 \LaTeX\ query, the first place to go to is the \TeX\ FAQ⁵.

- If you are unfamiliar or just getting started with \LaTeX, there’s a list of on-line introductions to \LaTeX\ at [https://texfaq.org/FAQ-man-latex](https://texfaq.org/FAQ-man-latex) or have a look at \LaTeX\ for Complete Novices.

- There are also forums, mailing lists and newsgroups. For example, \TeX\ on StackExchange ([https://tex.stackexchange.com/](https://tex.stackexchange.com/)), the \TeX\ Community ([https://latex.org/forum/](https://latex.org/forum/)), the texhax mailing list ([http://tug.org/mailman/listinfo/texhax](http://tug.org/mailman/listinfo/texhax)) and comp.text.tex (archives available at [http://groups.google.com/group/comp.text.tex/](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)](http://www.ctan.org/pkg/(name)) where \texttt{(name)} is the name of the package. For example: [http://www.ctan.org/pkg/natbib](http://www.ctan.org/pkg/natbib)

For a general guide to preparing papers (regardless of whether you are using \LaTeX\ 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](http://ctan.org/pkg/xcolor)

⁵[https://texfaq.org/](https://texfaq.org/)
3 Guidelines for Production Editors

The \texttt{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:

\begin{verbatim}
\firstpageno
\end{verbatim}

Please follow the PMLR specifications.

3.1 \texttt{jmlrbook} Class Options

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

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

\texttt{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:

\begin{verbatim}
\jmlrnwcp
\jmlrwcp
\jmlrpmlr
\end{verbatim}
JMLR proceedings

\jmlrproceedings{\langle short title\rangle}{\langle long title\rangle}

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 that 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[\langle PDF title\rangle]{\langle book title\rangle}

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[\langle PDF author(s)\rangle]{\langle book author(s)\rangle}

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{\langle number\rangle}

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

\subtitle

\subtitle{\langle sub-title\rangle}

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

\logo

\logo[\langle url\rangle]{\langle image command\rangle}

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 \langle url\rangle 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{\langle team title\rangle}

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

\productioneditor

\productioneditor{\langle name\rangle}

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

\jmlrlocation

\jmlrlocation{\langle location\rangle}

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

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

\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.

\begin{authorsignoff}
\authorlist
\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{\langle details\rangle}

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}

\begin{preface}{\langle filename\rangle}

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.

\begin{signoff}\[〈team name〉\]〈〈date〉〈〈editor list〉\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{〈details〉}

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

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

\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[\textit{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 \textit{title} to the table of contents, issues a clear double page, but doesn't display any text or affect the part numbering.

\chapter{
\chapter[\textit{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[\textit{short title}]{title}
}

\subsection{
\subsection[\textit{short title}]{title}
}

\subsubsection{
\subsubsection[\textit{short title}]{title}
}

\paragraph{
\paragraph[\textit{short title}]{title}
}

\subparagraph{
\subparagraph[\textit{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 \textit{pages} argument should be the page range from the \textit{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 \textit{directory}. If the file is in the same directory as the book, use a dot. The file name is given by \textit{file}. The article is also given a label, specified by the optional argument. This is \textit{directory}/\textit{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\}
\importarticlenotemark\{paper2\}{paper2}
\end{jmlrpapers}

31
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{(〈label list〉)}

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

\articlepageref{(〈label〉)}

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

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

\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{(〈label〉)}

32
This displays the short title for the article whose label is given by \(label\). Again, this must be a single label, not a list.

\articleauthorref{\langle label \rangle}

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

\articleauthorref{\langle label \rangle}

3.4 Altering the Layout of the Main Title Page

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

where \(element\) can be: title, volume, issue\(^1\), subtitle, logo, team, author, date, productioneditor. The \(pre\) and \(post\) 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{\langle element \rangle}{\langle true part \rangle}{\langle false part \rangle}

This does \(true part\) if \(element\) has been set otherwise it does \(false part\). 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}%
}

\(^1\)The default title page layout doesn't use issue, but if required it can be set with \issue{\langle number \rangle}
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`, `pdffigures`, 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 `algorithm` 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 \é or \æ, then this will cause an error on compiling the book. 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 `makejmlrbook` provides a function to search for characters outside the range 0x20 (space) and 0x7E (tilde).

\footnote{and 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.

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

Package options:

\ifjmlrutilsmaths
  Determine if the maths commands should be provided.
  \newif\ifjmlrutilsmaths
  \jmlrutilsmathstrue
  \DeclareOption{maths}{\jmlrutilsmathstrue}
  \DeclareOption{nomaths}{\jmlrutilsmathsfalse}
\fi

\ifjmlrutilstheorems
  Determine if the theorem environments should be provided.
  \newif\ifjmlrutilstheorems
  \jmlrutilstheoremstrue
  \DeclareOption{theorems}{\jmlrutilstheoremstrue}
  \DeclareOption{notheorems}{\jmlrutilstheoremsfalse}
\fi

\ifjmlrcleveref
  Determine whether or not to load cleveref.
  \newif\ifjmlrcleveref
  \jmlrclevereffalse
  \DeclareOption{cleveref}{\jmlrclevereftrue}
  \DeclareOption{nocleveref}{\jmlrclevereffalse}
\fi

\ifjmlrutilssubfloats
  Determine if the sub-floats should be provided.
  \newif\ifjmlrutilssubfloats
  \jmlrutilssubfloatstrue
  \DeclareOption{subfloats}{\jmlrutilssubfloatstrue}
  \DeclareOption{nosubfloats}{\jmlrutilssubfloatsfalse}
\fi

\ProcessOptions

Requires etoolbox:
\RequirePackage{etoolbox}
If the maths commands are needed, load amsmath.
\ifjmlrutilsmaths
\RequirePackage{amsmath}
\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.
\ifjmlrcleveref
\ifdef\jmlrprehyperref
{
\jmlrprehyperref
\@ifundefined{pre@hyperref}{}{\@pre@hyperref\undefined}\@pre@hyperref
\RequirePackage{hyperref}
\let\jmlrprehyperref\relax
\@ifundefined{post@hyperref}{}{\@post@hyperref\undefined}\@post@hyperref
}
}
\RequirePackage{aliascnt}
\RequirePackage{cleveref}
\fi

The conditional \iftablecaptiontop will already have been defined by the jmlr class, so only needs to be defined if not already done.
\iftablecaptiontop
\ifdef{iftablecaptiontop}
{\newif{iftablecaptiontop}
\tablecaptiontoptrue}
{}

4.1.1 Cross-Referencing
Convenient macros for cross-referencing.
\newcommand*{\jmlr@reflistsep}{, }
\newcommand*{\jmlr@reflistlastsep}{ and }
\newcommand*{\sectionrefname}{Section}
\newcommand*{\sectionsrefname}{Sections}
\newcommand*{\equationrefname}{Equation}
\newcommand*{\equationsrefname}{Equations}
\newcommand*{\tablerefname}{Table}
\newcommand*{\tablesrefname}{Tables}
\newcommand*{\figurerefname}{Figure}
\newcommand*{\figuresrefname}{Figures}
\newcommand*{\algorithmrefname}{Algorithm}
\newcommand*{\algorithmsrefname}{Algorithms}
\newcommand*{\theoremrefname}{Theorem}
\newcommand*{\theoremsrefname}{Theorems}
\newcommand*{\lemmarefname}{Lemma}
\newcommand*{\lemmasrefname}{Lemmas}
\newcommand*{\remarkrefname}{Remark}
4.1.2 Figures, Tables and Algorithms

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

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

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.

Command used by \floatconts to display the caption contents.

The algorithm environment should float like a figure or table. It should use the same counter as the algorithm2e environment.
use the algorithm environment%
\begin{algocf}\% 
\renewcommand\@makecaption[2]{% 
\parbox[t]{\dimexpr\linewidth-\AlCapHSkip}{\algocf@captiontext{##1}{##2}}% 
}%
\end{algocf}%
\@jmlr@ifgraphicxloaded
\AtBeginDocument{% 
@ifpackageloaded{graphicx}% 
{\let@jmlr@ifgraphicxloaded@firstoftwo}% 
{\let@jmlr@ifgraphicxloaded@secondoftwo}%}
includeteximage Provide a command like \includegraphics that includes a file containing \LaTeX picture code (e.g. pgf).
\newcommand*{\includeteximage}[2][{}]{% 
\@jmlr@ifgraphicxloaded 
{% 
\def\Gin@req@sizes{% 
\Gin@req@height\Gin@nat@height 
\Gin@req@width\Gin@nat@width}% 
\begingroup 
\let\input@path\Ginput@path 
\IfFileExists{#2}% 
{% 
\toks@{\input{#2}}% 
@ifstrempty{#1}% 
{}% 
{\@tempswatrue 
\setkeys{Gin}{#1} 
\Gin@esetsize 
}% 
\the\toks@ 
\PackageError{jmlrutils}{'graphicx' package is required if you want to use \string\includeteximage}{}% 
\endgroup 
{% 
\PackageError{jmlrutils}{'graphicx' package is required if you want to use \string\includeteximage}{}% 
\Sub floats.
The subfig package breaks jmlrbook.cls, so define \subfig here. (This is fairly primitive.)

\subfig

\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 {
201 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 }

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

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 }

42
\subfigref  Reference the sub-figure without including the figure number.

\newcommand*{\subfigref}[1]{% 
  \let\@objectname\@empty 
  \def\@objectref{}% 
  \let\@prevsep\@empty 
  \for@thislabel:=#1\do{% 
    \toks@{\@prevsep}% 
    \protected@edef\@objectref{\@objectref\the\toks@% 
      \protect\@subfigref{\@thislabel}}% 
  }% 
  \ifx\@objectname\@empty 
    \let\@objectname\@nil 
  \else 
    \let\@objectname\relax 
    \let\@prevsep\@jmlr@reflistsep 
  \fi 
  \ifx\@objectname\relax 
    \let\@prevsep\@jmlr@reflistlastsep 
  \fi 
  \@objectref 
} 

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

@subfloatcapbox  Box to store subfloat caption. 
\newsavebox{@subfloatcapbox} 

@subfloatcontsbox  Box to store subfloat contents. 
\newsavebox{@subfloatcontsbox} 

subcaptionwidth  Minimum sub-caption width. 
\newlength{jmlrminsubcaptionwidth} 

\subfigure 
\newcommand*{\subfigure}[1]{% 
  \bgroup 
  \def@subfigcap{#1}% 
  \@subfigure 
} 

\advance\c@figure by 1\relax 
\refstepcounter{subfigure}% 
\ifx@subfigcap\@empty 
  \else 
    \let@prevsep\@jmlr@reflistsep 
  \fi 
  \ifx@subfigcap\@empty 
    \else
Sub-tables:

\c@subtable Define subtable counter:
\newcounter{subtable}
\@addtoreset{subtable}{table}

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

\p@subtable
\renewcommand*{\p@subtable}{\expandafter\@p@subtable}
\newcommand*{\@@@subtablelabel}[2]{#1\subtablelabel{#2}}

As with \@subfigure we again need to check \TeX kernel version.
\@ifl@t@r\fmtversion{2019/08/22}
{
Newer kernel versions.
\@@@subtablelabel Define how label appears.
\newcommand*{\@@@subtablelabel}[3]{#1\subtablelabel[#2]}

Older kernel versions.

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

\newcommand*{\subtable}{\def\@subtabcap{#1}\@subtable}
\newcommand*{\@subtable}[2][t]{\refstepcounter{subtable}
\sbox\@subfloatcapbox{\subtablelabel{thesubtable}\ifx\@subtabcap\@empty\else\space\@subtabcap\fi}
\sbox\@subfloatcontsbox{#2}
\settowidth{\@tempdima}{\usebox\@subfloatcontsbox}
\settowidth{\@tempdimb}{\usebox\@subfloatcapbox}
\ifdim\@tempdimb>\@tempdima
\settowidth\@tempdimb{\subtablelabel{thesubtable}\space}
\addtolength{\@tempdima}{-\@tempdimb}
\ifdim\@tempdima>\jmlrminsubcaptionwidth
\sbox\@subfloatcapbox{\subtablelabel{thesubtable}\space\parbox[t]{\@tempdima}{\@subtabcap}}
\else
\sbox\@subfloatcapbox{\subtablelabel{thesubtable}\space\parbox[t]{\jmlrminsubcaptionwidth}{\@subtabcap}}
\fi
\else
\ifdim\@tempdimb<\jmlrminsubcaptionwidth
\sbox\@subfloatcapbox{\subtablelabel{thesubtable}\space\parbox[t]{\jmlrminsubcaptionwidth}{\@subtabcap}}
\fi
\fi
\begin{tabular}[#1]{c}
\usebox\@subfloatcapbox\\usebox\@subfloatcontsbox
\end{tabular}
}

End of sub-floats.

4.1.3 General Markup

Provide maths command if required.
\ifjmlrutilsmaths
\set
\newcommand*{\set}{\ensuremath{\mathcal{#1}}}

End of sub-floats.

46
\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]{\textbf{#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 \@nmbrlisttrue\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 \newcommand*{\altdescriptionlabel}[1]{\normalfont\bfseries #1\hfill}

\mailto  Syntax: \mailto{\textless address\textgreater}
397 \newcommand*{\mailto}[1]{\texttt{#1}}
4.1.4 Proofs and Theorems

This code is taken from jmlr2e.sty

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

Backward compatibility in case it was used explicitly.

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

```latex
\theorembodyfont{(font declarations)}
\begin{proof}
\proofname
\end{proof}
```

```latex
\setcounter{equation}{0}

(All environments are grouped together because of the following command)
```

```latex
\setcounter{equation}{0}
```

```latex
\newcommand{\proofname}{Proof}
```

```latex
\proofname
```

```latex
\providecommand{\proofname}{Proof}
```

```latex
\proofname
```

```latex
\prooffont{(font declarations)}
```

```latex
\newcommand{\prooffont}{Proof}
```

```latex
\prooffont
```

```latex
\providecommand{\prooffont}{Proof}
```

```latex
\prooffont
```
\theoremsep

\theoremsep{(separation code)}

\newcommand*{\theoremsep}[1]{\renewcommand*{\@theoremsep}{#1}}
\newcommand*{\@theoremsep}{}

\theorempostheader

\theorempostheader{(text)}

\newcommand*{\theorempostheader}[1]{\renewcommand*{\@theorempostheader}{#1}}
\newcommand*{\@theorempostheader}{}

\newtheorem

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

Define starred version:

\newtheorem*{(env-name)}{(title tag)}

\newcommand*{\jmlr@snewtheorem}[2]{\cslet{jmlr@thm@#1@body@font}{\@theorembodyfont}\cslet{jmlr@thm@#1@header@font}{\@theoremheaderfont}\cslet{jmlr@thm@#1@sep}{\@theoremsep}\cslet{jmlr@thm@#1@postheader}{\@theorempostheader}\newenvironment{#1}{\trivlist\item\hskip\labelsep\csuse{jmlr@thm@#1@header@font}#2\csuse{jmlr@thm@#1@postheader}}{\endtrivlist}}
Unstarred version needs adjusting to take the style into account:

\@othm
\newcommand{\jmlr@newtheorem}{1}{% 
  \cslet{\jmlr@thm@#1@body@font}{\@theorembodyfont}\
  \cslet{\jmlr@thm@#1@header@font}{\@theoremheaderfont}\
  \cslet{\jmlr@thm@#1@sep}{\@theoremsep}\
  \jmlr@org@newtheorem{#1}\
}\}

\@xthm
\renewcommand*{\@xthm}{2}{% 
  \def{\jmlr@currentthm}{1}\
  @begintheorem{2}{\csname the#1\endcsname}\
  \ignorespaces\
}\}

\@ythm
\def{\jmlr@thm#12[#3]}{1}{% 
  \def{\jmlr@currentthm}{1}\
  @opargbegintheorem{2}{\csname the#1\endcsname}{#3}\
  \ignorespaces\
}\}

@begintheorem
\renewcommand*{@begintheorem}{2}{% 
  ifdef{\jmlr@currentthm}{}\
  {\letcs{\jmlr@this@theoremheader}{\jmlr@thm@\jmlr@currentthm @header@font}\
  \letcs{\jmlr@this@theorembody}{\jmlr@thm@\jmlr@currentthm @body@font}\
  \letcs{\jmlr@this@theoremsep}{\jmlr@thm@\jmlr@currentthm @sep}\
  \letcs{\jmlr@this@theorempostheader}{\jmlr@thm@\jmlr@currentthm @postheader}\
  }% 
  {\let\jmlr@this@theorembody\@theorembodyfont 
  \let\jmlr@this@theorempostheader\@theorempostbodyfont}\
  \trivlist\
  \item 
  \hskip\labelsep{\jmlr@this@theorempostheader #1\ #2}\
  \jmlr@this@theorempostheader}\
  \ignorespaces \\n}\}

50
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:

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

Need xkeyval package to have key=value class options
\RequirePackage{xkeyval}
\RequirePackage{calc}
\RequirePackage{etoolbox}

Some packages need to be loaded before hyperref so provide a hook to do this:
\jmlrprehyperref
\providecommand*{\jmlrprehyperref}{}

The following conditionals are provided to make this class play nicely with combine and aren't required for articles.
\newif\if@openright
\newif\if@mainmatter \@mainmattertrue
\ifgrayscale
Determine whether to select grayscale alternatives
\@ifundefined{ifgrayscale}{
\newif\ifgrayscale
\grayscalefalse
}{
\DeclareOptionX{color}{\grayscalefalse
\PassOptionsToPackage{color}{xcolor}}
\DeclareOptionX{gray}{\grayscaletrue
\PassOptionsToPackage{gray}{xcolor}}
\DeclareOptionX{draft}{\PassOptionsToClass{\CurrentOption}{article}}
\DeclareOptionX{final}{\PassOptionsToClass{\CurrentOption}{article}}
\ifgrayscale
\else
\fi
\DeclareOptionX{tablecaptiontop}{\@tablecaptiontop}
\PassOptionsToPackage{tablecaptiontop}{xcolor}

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

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

\tableconts
\newcommand{\tableconts}[3]{% 
  \iftablecaptiontop
  #2\label{#1}\vskip\baselineskip
  \centering #3\par%
  \else
  \vskip\baselineskip
  \centering #3\par%
  \fi
}

Determine if the table captions should go at the top.

\tablecaptiontop
\DeclareOptionX{tablecaptiontop}{\tablecaptiontoptrue}
\tablecaptiontop
\DeclareOptionX{tablecaptionbottom}{\tablecaptiontopfalse}

\tablecaption Key=value interface.
\def\choicekey{jmlr.cls}{tablecaption}{\val
\newif\ifjmlrhtml
\jmlrhtmlfalse
\DeclareOptionX{html}{% 
  \ClassWarning{jmlr}{html option is now deprecated}%
  \jmlrhtmltrue}
\DeclareOptionX{nohtml}{\jmlrhtmlfalse}
\ifjmlrhtml

Determining 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.
\newif\ifjmlrhtml
\jmlrhtmlfalse
\DeclareOptionX{html}{% 
  \ClassWarning{jmlr}{html option is now deprecated}%
  \jmlrhtmltrue}
\DeclareOptionX{nohtml}{\jmlrhtmlfalse}

Normal font size (default is 11pt).
\edef\pt@size{11pt}
\DeclareOptionX{10pt}{\renewcommand{\pt@size}{10pt}}
\DeclareOptionX{11pt}{\renewcommand{\pt@size}{11pt}}
\DeclareOptionX{12pt}{\renewcommand{\pt@size}{12pt}}
The default paper size is letter, but provide 7 × 10in alternative:

```latex
\newif\ifviiXx
\viiXxfalse
\DeclareOptionX{7x10}{\viiXxtrue}
\DeclareOptionX{letterpaper}{\PassOptionsToPackage{letterpaper}{typearea}}
```

Pass all remaining options to article class:

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

Execute required options:

```latex
\ExecuteOptions{letterpaper}
```

Process options:

```latex
\ProcessOptionsX
```

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

```latex
\if@twoside
\PassOptionsToClass{twoside}{article}
\fi
```

Load article class.

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

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

```latex
\ifviiXx
\setlength{\paperwidth}{7in}
\setlength{\paperheight}{10in}
\setlength{\textwidth}{5.25in}
\setlength{\textheight}{8.2in}
\setlength{\topmargin}{0.4in}
\setlength{\headheight}{0.2in}
\setlength{\headsep}{0.2in}
\setlength{\hoffset}{-1in}
\setlength{\voffset}{-1in}
\setlength{\evensidemargin}{0.75in}
\setlength{\oddsidemargin}{1.0in}
\else
\setlength{\oddsidemargin}{0.25in}
\setlength{\evensidemargin}{0.25in}
\setlength{\marginparwidth}{0.07 true in}
\setlength{\topmargin}{-0.5in}
\addtolength{\headsep}{0.25in}
\setlength{\textheight}{8.5 true in}
\setlength{\textwidth}{6.0 true in}
\fi
```

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

```latex
\AtEndDocument{\@jmlrenddoc}
```

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

```latex
\RequirePackage{placeins}
```
Required packages:
\usepackage{amsmath}
\usepackage{amssymb}
\usepackage{natbib}
\usepackage{graphicx}
\usepackage{url}
\PassOptionsToPackage{x11names}{xcolor}
\usepackage{xcolor}
\PassOptionsToPackage{algo2e,ruled}{algorithm2e}
\usepackage{algorithm2e}
\setlength\algomargin{0pt}
\usepackage{jmlrutils}
\usepackage{hyperref}
\usepackage{nameref}
\usepackage{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 \texttt{algorithm2e} causes the message

\texttt{\end occurred inside a group at level 1}

I don't know why, but it's outside the control of this class.
\PassOptionsToPackage{algo2e,ruled}{algorithm2e}
\usepackage{algorithm2e}
Set the algorithm margin to zero.
\setlength\algomargin{0pt}
Load jmlrutils before hyperref.
\usepackage{jmlrutils}
Do all the stuff that needs to be done before \texttt{hyperref} is loaded:
\jmlrprehyperref
Do stuff that has to come immediately before \texttt{hyperref} is loaded:
\@ifundefined{@pre@hyperref}{}{\@pre@hyperref}
Load hyperref:
\usepackage{hyperref}
\usepackage{nameref}
\ifgrayscale
If this is the print version, need to disable the hyperlinks:
\hypersetup{draft}
\fi
% Do stuff that has to come immediately after \texttt{hyperref} and \texttt{nameref} are loaded:
% \changes{1.16}{2012/05/15}{added \texttt{cs{post@hyperref}}}
\@ifundefined{@post@hyperref}{}{\@post@hyperref}
Set up hyperref options:
\hypersetup{colorlinks,
linkcolor=blue,
citecolor=blue,
urlcolor=magenta,
linktocpage,
plainpages=false}
\ifgrayscale
If this is the print version, need to disable the hyperlinks:
\hypersetup{draft}
\fi
Float parameters: the following settings were copied from jmlr2e.sty

\renewcommand{\topfraction}{0.95} % let figure take up nearly whole page
\renewcommand{\textfraction}{0.05} % let figure take up nearly whole page
widows/orphans
\widowpenalty=10000\relax
\clubpenalty=10000\relax
Put marginal notes on the outside of the page
\@mparswitchtrue
Use the plainnat bibliography style and set up the required punctuation.
\bibliographystyle{plainnat}
\bibpunct{(}{{}}{;}{a}{{},}{,}

4.2.1 Sections

\section
\renewcommand{\section}{\@startsection{section}{1}{\z@}%-0.24in \@plus -1ex \@minus -.2ex}{0.10in \@plus .2ex}{\normalfont\rmfamily\bfseries\large\raggedright}

\subsection
\renewcommand{\subsection}{\@startsection{subsection}{2}{\z@}%-0.20in \@plus -1ex \@minus -.2ex}{0.08in \@plus .2ex}{\normalfont\normalsize\rmfamily\bfseries\normalsize\raggedright}

\subsubsection
\renewcommand{\subsubsection}{\@startsection{subsubsection}{3}{\z@}%-0.18in \@plus -1ex \@minus -.2ex}{0.08in \@plus .2ex}{\normalfont\normalsize\rmfamily\bfseries\normalsize\scshape\normalsize\raggedright}

\paragraph
\renewcommand{\paragraph}{\@startsection{paragraph}{4}{\z@}{1.5ex plus 0.5ex minus .2ex}{-1em}{\normalfont\normalsize\rmfamily\bfseries}}

\subparagraph
\renewcommand{\subparagraph}{\@startsection{subparagraph}{5}{\z@}{1.5ex plus 0.5ex minus .2ex}{-1em}{\normalfont\normalsize\rmfamily\bfseries\itshape}}

58
\seccntformat Redefine the way the section number appears in the section heading.

\renewcommand*{\seccntformat}[1]{\csname pre#1num\endcsname the#1\enskip}

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.)

\renewcommand*{\@makefntext}[1]{\@setpar\@par\@tempdima\hsize\advance\@tempdima -15pt\relax\parshape 15pt \@tempdima\par\parindent 2em\noindent\hbox to \z@ {\hss {\@thefnmark }\footnoteseptext\hfil }#1}

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

\newcommand*{\footnoteseptext}{. }

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

\renewcommand*{\thanks}[1]{\refstepcounter{mpfootnote}\footnotemark[\number\value{mpfootnote}]\xappto@thanks\noexpand\footnotetext[\number\value{mpfootnote}]{#1}}

4.2.3 Article abstract

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

\abstract

\ifjmlrhtml
\renewenvironment{abstract}{\HCode{<h3>Abstract \HCode{</h3>}}{}
\else
\renewenvironment{abstract}{\centering\large\bfseries Abstract\par}{\vspace{0.7ex}}
\fi

\end{document}
4.2.4 Keywords

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

\begin{keywords}

\begin{newenvironment}{keywords}
\begin{bgroup}
\leftskip 20pt
\rightskip 20pt
\small
\noindent
{\bfseries Keywords:} \ignorespaces
\end{bgroup}
\vskip 0.25ex
\end{keywords}

4.2.5 Title Page Information

This code has been taken from jmlr2e.sty.

The stuff, borrowed in part from aaai92.sty

\begin{newlength}{aftertitleskip}
\begin{newlength}{beforetitleskip}
\begin{newlength}{interauthorskip}
\begin{newlength}{aftermaketitleskip}

Changeable parameters.

\setlength{aftertitleskip}{0.1in plus 0.2in minus 0.2in}
\setlength{beforetitleskip}{0.05in plus 0.08in minus 0.08in}
\setlength{interauthorskip}{0.08in plus 0.1in minus 0.1in}
\setlength{aftermaketitleskip}{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.

\newcommand*{\titlebreak}{\newline}

\titletag \newcommand*{\titletag}{[]}

\title Override definition of \texttt{\title} to allow for an optional argument (short title)

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

\jmlrtitlehook \newcommand*{\jmlrtitlehook}{[]}

\jmlr@title AUX command provided for MakeJmlrBookGUI

\newcommand*{\jmlr@title}{[2]}
Override definition of \author to allow for an optional argument (list of authors for page heading)
\renewcommand*{\author}{%\
\def\@author{#2}\
\def\@sauthor{#1}\
\def\@jmlr@aux@author{#2}\@onelevel@sanitize\@jmlr@aux@author\
\ifx\@sauthor\@empty\
\let\@jmlr@aux@sauthor\@jmlr@aux@author\
\else\
\let\@shortauthor\@sauthor\
\def\@jmlr@aux@sauthor{#1}\@onelevel@sanitize\@jmlr@aux@sauthor\
\fi\
\jmlrauthorhook\
\protected@write\@auxout{}{\string\jmlr@author{\@jmlr@aux@sauthor}{\@jmlr@aux@author}}%
\jmlrauthorhook
\newcommand*{\jmlrauthorhook}{}
\jmlr@author AUX command provided for MakeJmlrBookGUI
\newcommand*{\jmlr@author}{%}
@shortauthor
\newcommand*{@shortauthor}{}
@firstauthor
\newcommand*{@firstauthor}{}
@firstsurname
\newcommand*{@firstsurname}{}
jmlrlength
\newlength{jmlrlength}
jmlrmaketitle Make the title
\def\jmlrmaketitle{%\jmlrpreamaketitlehook\def\@jmlr@authors@sep{, }\par\begingroup\def\footnoteseptext{ }%\def\thempfn{\textsuperscript{\thefootnote}}%\def\thefootnote{\fnsymbol{footnote}}%}
If we're creating HTML, set \maketitle to \jmlrhtmlmaketitle, otherwise set it to \jmlrmaketitle

\maketitle
Author and editor information.

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

Initialise to do nothing if used outside of \author

Parse a name. Appends forename to @forenames and stores surname in @surname.
\let\@nextparsename\@parsenamesnoop
\else
\@getinitial#1-\relax\relax\end@getinitial
\ifx\@forenames\@empty
\def\@forenames{#1}\%
\protected@edef\@initials{\@initial}\%
\else
\expandafter\toks@\expandafter{\@forenames}\%
\edef\@forenames{\space\the\toks@}\%
\expandafter\toks@\expandafter{\@initials}\%
\protected@edef\@initials{\the\toks@\@initial}\%
\fi
\let\@nextparsename\@parsename
\fi
\@nextparsename#2\end@parsename
\}
\def\@parsenamesnoop#1\end@parsename{}

\def\@getinitial#1#2-#3#4\end@getinitial{\%
\def\@jmlr@tmp{#3}\%
\if\@jmlr@tmp\relax
\def\@initial{#1.}\%
\else
\def\@initial{#1.-#3.}\%
\fi
\}

\Name Get the author's name and add surname to \@shortauthors. (Surnames with "von" parts or with spaces in should be enclosed in braces)
\newcommand*{\Name}[2][]{\%
\def\@authorlist{#1}\%
\def\@forenames{}\%
\def\@surname{}\%
\def\nametag##1{}\%
\@parsename#2\@nil\end@parsename\%
\ifx\@shortauthor\@empty\%
\ifx\@sauthor\@empty
\global\let\@shortauthor\@surname\%
\global\let\@firstsurname\@surname\%
\else
\fi
\global\let\@firstauthor\@jmlrauthors\%
\else
\ifx\@sauthor\@empty
\global\let\@shortauthor\@surname\%
\global\let\@firstsurname\@surname\%
\else
\global\let\@firstauthor\@jmlrauthors\%
\else
\fi
\fi\%
\}

64
\expandafter\toks@\expandafter{\@shortauthor}\
\protected@xdef\@shortauthor{\the\toks@\space\@surname}\
\fi\
\ifx\@authorlist\@empty\
\ifx\@jmlrauthors\@empty\
\protected@xdef\@jmlrauthors{\@initials\space\@surname}\
\else\
\protected@xdef\@jmlrauthors{\@jmlrauthors\noexpand\@jmlr@authors@sep\
\@initials\space\@surname}\
\fi\
\else\
\ifx\@jmlrauthors\@empty\
\protected@xdef\@jmlrauthors{\@authorlist}\
\else\
\protected@xdef\@jmlrauthors{\@jmlrauthors\noexpand\@jmlr@authors@sep\@authorlist}\
\fi\
\fi\
\def\nametag##1{##1}\
\@name #2\
}\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.
\newcommand*{\jmlrabbrnamelist}[1]{% 
def\nametag##1{##1}% 
def\@jmlr@authors@sep{, }% 
def\@jmlr@namelist{}% 
@for\@thisname:=#1\do{% 
\expandafter\@jmlrabbrname\expandafter{\@thisname}% 
\ifx\@jmlr@namelist\@empty 
\protected@edef\@jmlr@namelist{\@initials\space\@surname} 
\else 
\protected@edef\@jmlr@namelist{\@jmlr@namelist
\noexpand\@jmlr@authors@sep\@initials\space\@surname} 
\fi 
\def\@jmlr@authors@sep{ \& } 
\@jmlr@namelist 
}
\@jmlrabbrname
\newcommand*{\@jmlrabbrname}[1]{% 
  \def\@initials{}% 
  \def\@surname{}% 
  \def\@forenames{}% 
  \@parsename#1 \@nil\end@parsename
}

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

\jmlrpostauthor
\def\jmlrpostauthor{@endauthor\egroup 
  \par 
  \vskip \aftermaketitskip 
  \noindent 
  \ifx\@editor\@empty 
    \else 
      \@starteditor \@editor \@endeditor 
    \fi 
  \vskip \aftermaketitskip }

\@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.
\def\@jmlrmaketitle{% 
  {% 
    \jmlrpretitle 
    {% 
      \def\titletag##1{##1}% 
      \@title 
    }% 
  }% 
  \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.

  \jmlrpreauthor \ignorespaces\@author \jmlrpostauthor 
}

\kernelmachines  
Convenience command
\newcommand*{\kernelmachines{(for 
  {\textsc{http://www.kernel-machines.org}})}}

\editorname  
Label for the editor
\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 defeditor#1{%
1002 global let@edname=editorname
1003 gdef@editor{#1}%
1004 }

editors Multiple editors
1005 defeditors#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 jmlrauthors.\hfill
1020 \@reprint
1021 }
\ps@jmlrps Page style for subsequent pages
\let\@mkboth\@gobbletwo
\def\@oddhead{\hfill \small\scshape \@shorttitle \hfill}
\def\@oddfoot{\hfill \small\rmfamily \thepage \hfill}
\def\@evenhead{\hfill \small\scshape \@shortauthor \hfill}
\def\@evenfoot{\hfill \small\rmfamily \thepage \hfill}
Set the page style:
\pagestyle{jmlrps}

Set the heading information:
\@jmlrvolume The volume number:
\providecommand*{\@jmlrvolume}{}
\jmlrvolume
\newcommand*{\jmlrvolume}{\renewcommand*{\@jmlrvolume}{#1}}
\@jmlrissue The issue number:
\providecommand*{\@jmlrissue}{}
\jmlrissue
\newcommand*{\jmlrissue}{\renewcommand*{\@jmlrissue}{#1}}
\@jmlryear The year of publication:
\providecommand*{\@jmlryear}{}
\jmlryear
\newcommand*{\jmlryear}{\renewcommand*{\@jmlryear}{#1}}
\@jmlrpages The page range:
\providecommand*{\@jmlrpages}{\pageref{jmlrstart}--\pageref{jmlrend}}
\jmlrpages
\newcommand*{\jmlrpages}{\renewcommand*{\@jmlrpages}{#1}}
\@jmlrsubmitted The date the article was submitted:
\providecommand*{\@jmlrsubmitted}{}
\jmlrsubmitted
\newcommand*{\jmlrsubmitted}{\renewcommand*{\@jmlrsubmitted}{#1}}
\@jmlrpublished The date the article was published:
\providecommand*{\@jmlrpublished}{}
\jmlrpublished
\newcommand*{\jmlrpublished}{\renewcommand*{\@jmlrpublished}{#1}}
4.2.7 Miscellany

This code was taken from jmlr2e.sty.

Define macros for figure captions and table titles

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

\def\figurecenter#1#2{\centerline{{\slshape #1} #2}}

Allow “hanging indents” in long captions
\long\def\@makecaption#1#2{%
  \vskip 10pt
  \setbox\@tempboxa\hbox{#1: #2}%
  \ifdim \wd\@tempboxa >\hsize % IF longer than one line:
    \begin{list}{#1:}{%
      \settowidth{\labelwidth}{#1:}
      \setlength{\leftmargin}{\labelwidth}
      \addtolength{\leftmargin}{\labelsep}
    }\item #2 \end{list}\par % Output in quote mode
  \else % ELSE center.
    \hbox to\hsize{\hfil\box\@tempboxa\hfil}
  \fi}

Define strut macros for skipping spaces above and below text in a tabular environment.
\def\abovestrut#1{\rule[0in]{0in}{#1}\ignorespaces}
\def\belowstrut#1{\rule[-#1]{0in}{#1}\ignorespaces}

\acks Acknowledgements
\newcommand{\acks}{\section*{Acknowledgments}}

Research Note
\newcommand{\researchnote}{\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.
\providecommand{\ifprint}{\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.)
\ifjmlrhtml
\else
  \let\@org@includegraphics@includegraphics
  \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.

includegraphics This is a patched version of the old \includegraphics.
\def\@jmlr@includegraphics{\begingroup
  \let\input@path\Ginput@path
  \ifprint{\filename@parse{#1-gray}}{\filename@parse{#1}}%
  \ifx\filename@ext\relax
    \@for\Gin@temp:=\Gin@extensions\do{%
      \ifx\Gin@ext\relax
        \Gin@getbase\Gin@temp%
    \@for\Gin@temp:=\Gin@extensions\do{%
\fi\}%
\else
  \ifprint{\filename@parse{#1}}{}
  \Gin@getbase{\Gin@sepdefault\filename@ext}\%
  \if\Gin@ext\relax
    \@warning{File \texttt{#1} not found}\%
    \def\Gin@base{\filename@area\filename@base}\%
    \edef\Gin@ext{\Gin@sepdefault\filename@ext}\%
  \fi
  \fi\%
\fi
\fi\%
\if\Gin@ext\relax
  \ifprint{\@org@Ginclude@graphics{#1}}%
  \{%\@latex@error{File \texttt{#1} not found}\%
  \{I could not locate the file with any of these extensions:\texttt{^^J}\%
  \Gin@extensions\texttt{^^J}\texttt{@ehc}\%
  \}%\%
\else
  \@ifundefined{Gin@rule@\Gin@ext}{\@undefined}{\expandafter\Gin@setfile\Gin@rule@*{\Gin@base\Gin@ext}}%
\fi\%
\endgroup
\@jmlr@new@Ginclude@graphics
This is a patch of the new version.
\def\@jmlr@new@Ginclude@graphics#1{\@undefined\edef\Gin@extensions{\detokenize{\expandafter{\Gin@extensions}}}\%
\begingroup\let\input@path\Ginput@path\if\set@curr@file{\set@curr@file{\set@curr@file{\@curr@file}{}\%
\expandafter\filename@parse\expandafter{\filename@base}\%
\if\filename@ext\Gin@gzext
\expandafter\filename@parse\expandafter{\filename@base}\%
\if\filename@ext\relax
\let\filename@ext\Gin@gzext
\else
\edef\Gin@ext{\Gin@ext\Gin@sepdefault\Gin@gzext}\%
\fi\%
\fi\%
\let\@jmlr@filename@ext\filename@ext\if\filename@ext\relax
\for\Gin@temp:=\Gin@extensions\do{%\texttt{\set@curr@file{\set@curr@file{\@curr@file}{\@curr@file}{}\%
\expandafter\filename@parse\expandafter{\@curr@file}{}\%
\if\filename@base\Gin@gzext
\expandafter\filename@parse\expandafter{\filename@base}\%
\if\filename@base\relax\let\filename@base\Gin@gzext\else\edef\Gin@ext{\Gin@ext\Gin@sepdefault\Gin@gzext}\%
\fi\%
\fi\%
\let\@jmlr@filename@ext\filename@ext\if\@jmlr@filename@ext\else\@undefined\fi\%
\fi\%
\endgroup
\@for\Gin@temp:=\Gin@extensions\do{%\texttt{\set@curr@file{\set@curr@file{\@curr@file}{\@curr@file}{}\%
\expandafter\filename@parse\expandafter{\@curr@file}{}\%
\if\filename@base\Gin@gzext
\expandafter\filename@parse\expandafter{\filename@base}\%
\if\filename@base\relax\let\filename@base\Gin@gzext\else\edef\Gin@ext{\Gin@ext\Gin@sepdefault\Gin@gzext}\%
\fi\%
\fi\%
\let\@jmlr@filename@ext\filename@ext\if\@jmlr@filename@ext\else\@undefined\fi\%
\fi\%
}
\{I could not locate the file with any of these extensions:\}
\{Gin@extensions\}
\else
\@ifundefined{Gin@rule@Gin@ext}{}
{\latex@error{Unknown graphics extension: \Gin@ext}}
\else
\expandafter\Gin@setfile\Gin@rule@*{\Gin@base\Gin@ext}%
\fi%
\expandafter\expandafter\expandafter\Gin@setfile
\csname Gin@rule@Gin@ext\endcsname{\Gin@base\Gin@ext}}%
\fi
\endgroup

Determine which one to use:
\ifpackagelater{graphics}{2019/07/01}{}
{\let\Ginclude@graphics\@jmlr@new@Ginclude@graphics}%
{\let\Ginclude@graphics\@jmlr@old@Ginclude@graphics}%
\fi

\artappendix Switch to appendices in an article
\newcommand{\artappendix}{\par
\setcounter{section}{0}
\setcounter{subsection}{0}
\def\thesecnum{\Alph{section}}%
\def\thesectionnum{Appendix~}%
}

The default assumes a stand-alone article.

\appendix
\let\appendix\artappendix

\booklinebreak Provided for book production editors to fine tune the book line breaking. Does nothing in the standalone article.
\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
\newcounter{chapter}
\renewcommand{\chapter}{\@arabic\c@chapter}
\newcommand{\chapapp}{\chapernum}
Add sections to the chapter reset.
\addtoreset{section}{chapter}

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

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

\bookchapter
\newcommand{\bookchapter}{
  \if@openright\cleardoublepage\else\clearpage\fi
  \thispagestyle{plain}%
  \global\z@topnum
  \@afterindentfalse
  \secdef\@chapter\@schapter}

\artchapter  Disable chapters for articles.
\newcommand{\artchapter}{
  \ClassError{jmlr}{Chapters not permitted in articles}{}}

\chapter  The default assumes a stand-alone document.
\let\chapter\artchapter

Label for the chapter entries in the toc.
\def{\chaptoclabel}{chapter}

\@chapter  Numbered chapters
\def{\chapter[#1]#2}{
  \ifnum\c@secnumdepth>\m@ne
    \refstepcounter{chapter}
    \if@mainmatter
      \typeout{\@chapapp\space thechapter.}%
      \addcontentsline{toc}{\chaptoclabel}{\protect\numberline{thechapter}#1}%
    \else
      \addcontentsline{toc}{\chaptoclabel}{#1}%
    \fi
  \else
    \addcontentsline{toc}{\chaptoclabel}{#1}%
  \fi
  \chaptermark{#1}%
  \addtocontents{lof}{\addvspace{10\p@}}%  \addtocontents{lot}{\addvspace{10\p@}}%
  \if@twocolumn
    \@topnewpage[\@makechapterhead{#2}]%  \else
    \@makechapterhead{#2}%
    \@afterheading
    \fi}

75
\chaptertitleformat  Formats the chapter title
1293 \newcommand{\chaptertitleformat}[1]{{%  
1294  \Huge\bfseries#1%  
1295 %}}

\chapternumberformat  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}{%  
1306  \null\vskip\prechapterskip%  
1307  \ifnum\c@secnumdepth>\m@ne%  
1308  \if@mainmatter%  
1309  \chapternumberformat{\thechapter}%  
1310  \fi%  
1311  \interlinepenalty\@M%  
1312  \chaptertitleformat{#1}\par\nobreak%  
1313  \vskip\postchapterskip%  
1314 %}}

\@schapter  Unnumbered chapters.
1317 \def{\@schapter}{%  
1318  \if@twocolumn%  
1319  \@topnewpage{}%  
1320  \@makeschapterhead{#1}\%  
1321  \else%  
1322  \@makeschapterhead{#1}\%  
1323  \@afterheading%  
1324  \fi%}

\makeschapterhead  Layout for unnumbered chapter headings
1323 \def{\makeschapterhead}{%  
1324  \vspace*{\prechapterskip}\%  
1325  \parindent \z@%
\chapterformat
\interlinepenalty@M
\chaptertitleformat{#1}\par
\nobreak
\vskip \postchapterskip
}}
\l@chapter
Format for chapter entry in toc
\newcommand*{\l@chapter}[2]{%\ifnum \c@tocdepth >1\m@ne
\addpenalty{-1\@highpenalty}\
\vskip 1.0em @plus\p@\n\setlength{\@tempdima}{1.5em}\
\begingroup\parindent \z@ \rightskip \@pnumwidth
\parfillskip -\@pnumwidth\leavevmode \large\bfseries
\advance\leftskip\@tempdima\hskip -\leftskip#1\nobreak\hfil \nobreak\hb@xt@\@pnumwidth{\hss #2}\par
\penalty\@highpenalty\endgroup
\fi}
\l@appendix
Make appendix entries in the toc the same as that for chapters by default
\let\l@appendix\l@chapter
\chaptername
\newcommand*{\chaptername}{Chapter}
\frontmatter
Start the front matter (in book)
\cleardoublepage\@mainmatterfalse
\renewcommand*{\theHchapter}{front-\thechapter}\%\pagenumbering{roman}\
\morefrontmatter}
\mainmatter
Start the main matter (in book)
\newcommand*{\mainmatter}{%\cleardoublepage\@mainmattertrue
\renewcommand*{\theHchapter}{\thechapter}\%
\pagenumbering{arabic}\
\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 }

arttableofcontents  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

78
\bookpart A part in a book forming a collection of articles
\newcommand\bookpart{%
  \def\toclevel@part{-1}%
  \if@openright
    \cleardoublepage
  \else
    \clearpage
  \fi
  \thispagestyle{plain}%
  \if@twocolumn
    \onecolumn\@tempswatrue
  \else
    \@tempswafalse
  \fi
  \preparthook
  \secdef\@bookpart\@sbookpart}

\parttitleformat Format of the title for a part (in a book)
\newcommand\parttitleformat\[1\]{%\Huge\bfseries#1%}

Part labels
\newcommand*{%\@parttoclabel}{part}

%@partapp
\def%@partapp{%partname}

\partnumberformat Format of the part number (in a book)
\newcommand\partnumberformat\[1\]{%\Huge\bfseries \@partapp
\nobreakspace#1\par\nobreak
\vskip 20\p@}

\preparthook Hook at the start of a part (in a book)
\newcommand\preparthook\{\null\vfil\}

\partformat Overall format of part
\newcommand*\partformat\{\centering\}

@bookpart Numbered book part format
\def@bookpart[#1]#2{%
Define commands to switch between book/article modes

\jmlrbookcommands  Switch to book commands
\begin{verbatim}
newcommand*{\jmlrbookcommands}{%
  \let\part\bookpart
  \let\chapter\bookchapter
  \let\appendix\bookappendix
  \let\tableofcontents\booktableofcontents
  \def\thesection{\thechapter.\arabic{section}}%
}\end{verbatim}

\jmlarticlecommands  Switch to article commands
\begin{verbatim}
newcommand*{\jmlarticlecommands}{%
  \let\part\artpart
  \let\chapter\artchapter
  \let\appendix\artappendix
  \let\tableofcontents\arttableofcontents
  \def\thesection{\arabic{section}}%
}\end{verbatim}

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

\jmlr@check@warn
\begin{verbatim}
newcommand*{\jmlr@check@warn}[1]{% 
@check@packages
\begin{verbatim}
ewcommand*{\@jmlr@check@warn@packages}{% 
  \ifpackageloaded{epsfig}{%
    \ClassError{jmlr}{Obsolete package ‘epsfig’ detected.\MessageBreak
    Please use \texttt{\string\includegraphics\space to include images}\MessageBreak
    instead}{}%}
  \fi
  \ifpackageloaded{psfig}{%
    \ClassError{jmlr}{Obsolete package ‘psfig’ detected.\MessageBreak
    Please use \texttt{\string\includegraphics\space to include images}\MessageBreak
    instead}{}%}
  \fi
  \ifpackageloaded{subfig}{%
    \@jmlr@check@warn{Package ‘subfig’ detected.\MessageBreak
    This will cause a conflict if the article is incorporated\MessageBreak
    into a book using \texttt{jmlbook.cls}.\MessageBreak
    Please use \texttt{\string\subfigure\space and}\MessageBreak
    \texttt{\string\subtable\space instead}}{}%}
\end{verbatim}
\end{verbatim}
\end{verbatim}

\ifpackageloaded{theorem}{%
\ClassError{jmlr}{Package 'theorem' detected.\MessageBreak
This can cause a conflict with other packages used by jmlr}{}}{}
\ifpackageloaded{ntheorem}{%
\ClassError{jmlr}{Package 'ntheorem' detected.\MessageBreak
This can cause a conflict with other packages used by jmlr}{}}{}
\ifpackageloaded{amsthm}{%
\ClassError{jmlr}{Package 'amsthm' detected.\MessageBreak
This package conflicts with the jmlr class}{}}{}
\ifpackageloaded{pdfpages}{}
\classWarning{jmlr}{Package 'pdfpages' detected.\MessageBreak
This can cause a problem for jmlrbook}{}}{}
\ifpackageloaded{geometry}{}
\classWarning{jmlr}{Package 'geometry' detected.\MessageBreak
This can cause a problem for jmlrbook}{}}{}
\ifpackageloaded{tabularx}{}
\ClassError{jmlr}{Package 'tabularx' detected.\MessageBreak
This will break footnote links}{}}{}
\ifpackageloaded{jmlr2e}{}
\ClassError{jmlr}{Package 'jmlr2e' detected.\MessageBreak
This can't be used with the jmlr class}{}}{}
\AtBeginDocument{%
\ifjmlrcheckpackages
\let\@jmlrcheckpackages\relax
\newcommand*{\jmlrcheckpackages}{%\let\@jmlrcheckpackages\relax
Discourage authors from using obsolete commands:

\DeclareRobustCommand*{\obsoletefontcs}[1]{%\ClassWarning{jmlr}{Obsolete command
\expandafter\string\csname#1\endcsname detected}%
\csname #1 \endcsname
}\bf
\renewcommand*{\bf}{%
\obsoletefontcs{bf}\%}
\it
\renewcommand*{\it}{%
Check for pseudocode package since it conflicts with the algorithm package and quite often both packages are used in the same book or proceedings.

\providecommand*{\jmlrcheckforpseudocode}{%\@ifpackageloaded{pseudocode}%=}
\{%\RETURN\pseudoRETURN\RETURN
\%\TRUE\pseudoTRUE\TRUE
\%\FALSE\pseudoFALSE\FALSE
\%\AND\pseudoAND\AND
\%\OR\pseudoOR\OR
\%\NOT\pseudoNOT\NOT
\%\TO\pseudoTO\TO
\%\COMMENT\pseudoCOMMENT\COMMENT
\%\IF\pseudoIF\IF
\%\ELSE\pseudoELSE\ELSE
\%\FOR\pseudoFOR\FOR
\%\FORALL\pseudoFORALL\FORALL
\%\WHILE\pseudoWHILE\WHILE
\%\REPEAT\pseudoREPEAT\REPEAT
\%\UNTIL\pseudoUNTIL\UNTIL
\%\ENDFOR\pseudoENDFOR\ENDFOR
\%\undefined\RETURN\undefined
\%\undefined\TRUE\undefined
\%\undefined\FALSE\undefined
\%\undefined\AND\undefined

83
4.3 jmlrbook.cls Code

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

\NeedsTeXFormat{LaTeX2e}

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

Need xkeyval package to have key=value class options
\RequirePackage{xkeyval}

Requires double spacing for the title page
\RequirePackage{setspace}

Path used to determine if the preface is in the main document or in a separate file.
The fink package is now deprecated, so only use it if currfile isn't installed.

\IfFileExists{currfile.sty}\
\begin{Verbatim}
\RequirePackage{currfile}
\renewcommand*\jmlrprefacepath{\currfilepath}
\end{Verbatim}
{\
\begin{Verbatim}
\RequirePackage{fink}
\ifdef\finkpath
{\
\renewcommand*\jmlrprefacepath{\finkpath}
}
\end{Verbatim}
}

fink version too old.
\ClassWarning{jmlrbook}{'currfile' package required}

Some packages need to be loaded before hyperref so provide a hook to do this:
\providecommand*{\jmlrprehyperref}{}

\ifgrayscale
Determine whether to select color or grayscale
\newif{\ifgrayscale}
\grayscalefalse
\DeclareOptionX{draft}{\setlength\overfullrule{5pt}}
\final
\DeclareOptionX{final}{\setlength\overfullrule{0pt}}
\color
\DeclareOptionX{color}{\grayscalefalse}
\gray
\DeclareOptionX{gray}{\grayscaletrue}

Pass letterpaper and 7x10 to jmlr.

\letterpaper
\DeclareOptionX{letterpaper}{\PassOptionsToClass{\CurrentOption}{jmlr}}
\7x10
\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}}

\jmlrprefaceheader
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}}

86
Switch on two-side mode by default
\@twosidetrue

Process options
\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.
\ifnum\jmlrgrayscale=0\relax
\grayscalefalse
\else
\grayscaletrue
\fi

This next bit is a modification of pdfx. It's only used for the print version when the pdfxa option is used.
\ifjmlrpdfxa
\def\convertDate{\getYear}
\catcode`D=12
\edef\xYear{\getMonth{\edef\xMonth{\edef\xDay{\edef\xSec{\edef\xHour{\edef\xMin{\edef\xTZh{\%}
\catcode`Z=12
\edef\tmpz{Z}

87
{\def\hash{\expandafter\@gobble\string\#}\
\def\amp{\expandafter\@gobble\string\&}\
\def\xmpAmp{\amp\hash x0026;}\
\def\sep{</rdf:li><rdf:li>}\
\def\TextCopyright{\amp\hash x00A9;}\
\def\Title#1{\gdef\xmpTitle{#1}}\
\def\Keywords#1{\gdef\xmpKeywords{#1}}\
\let\xmpKeywords\@empty\
\def\Creator#1{\gdef\xmpCreator{#1}}\
\def\xmpCreator{pdfTeX}\
\def\Volume#1{\gdef\xmpVolume{#1}}\
\let\xmpVolume\@empty\
\def\Issue#1{\gdef\xmpIssue{#1}}\
\let\xmpIssue\@empty\
\def\CoverDisplayDate#1{\gdef\xmpCoverDisplayDate{#1}}\
\let\xmpCoverDisplayDate\@empty\
\def\CoverDate#1{\gdef\xmpCoverDate{#1}}\
\let\xmpCoverDate\@empty\
\def\Copyright#1{\gdef\xmpCopyright{#1}}\
\let\xmpCopyright\@empty\
\def\Doi#1{\gdef\xmpDoi{#1}}\
\let\xmpDoi\@empty\
\def\Lastpage#1{\gdef\xmpLastpage{#1}}\
\let\xmpLastpage\@empty\
\def\Firstpage#1{\gdef\xmpFirstpage{#1}}\
\let\xmpFirstpage\@empty\
\def\Journaltitle#1{\gdef\xmpJournaltitle{#1}}\
\let\xmpJournaltitle\@empty\
\def\Journalnumber#1{\gdef\xmpJournalnumber{#1}}\
\let\xmpJournalnumber\@empty\
\def\Org#1{\gdef\xmpOrg{#1}}\
\let\xmpOrg\@empty\
\def\CreatorTool#1{\gdef\xmpCreatorTool{#1}}\
\def\xmpCreatorTool{pdfTeX}\
\def\AuthoritativeDomain#1{\gdef\xmpAuthoritativeDomain{#1}}\
\let\xmpAuthoritativeDomain\@empty\
\def\findUUID#1{\edef\tmpstring{\pdfmdfivesum{#1}}\expandafter\eightofnine\tmpstring\end}\
\def\eightofnine#1#2#3#4#5#6#7#8#9\end{\xdef\eightchars{#1#2#3#4#5#6#7#8}}\
\def\fouroffive#9\end{\xdef\fourchars{#1#2#3#4#5#6#7#8}}\
\def\sfouroffive#1#2#3#4#5\end{\xdef\sfourchars{#1#2#3#4}}
This is a modification of the command from pdfx that also works for zero and negative hours.

This is a modified version of the command from pdfx.

Defines the date using information derived from parsing \pdfcreationdate

This macro contains a trimmed down version of pdfx.

% pdfminorversion=3
% pdfpageattr{/MediaBox[0 0 595 793]
% /BleedBox[0 0 595 793]
% /TrimBox[25 20 570 773]}%
\InputIfFileExists{\jobname.xmpdata}{\jobname.xmpdata}{\jobname.xmpdata}\
\RequirePackage{xmpincl}\
\expandafter\convertDate\pdfcreationdate\
\def\@pctchar{\expandafter\@gobble\string\%}\
\def\@bchar{\expandafter\@gobble\string\\}\
\immediate\pdfobj stream attr{/N 4} file{FOGRA39L.icc}\
\edef\OBJ@CVR{\the\pdflastobj}\
\pdfcatalog{/OutputIntents [ << /Type/OutputIntent /S/GTS_PDFX /OutputCondition (FOGRA39) /OutputConditionIdentifier (FOGRA39 \@bchar (ISO Coated v2 300\@pctchar \@bchar (ECI \@bchar) \@bchar)) /DestOutputProfile \OBJ@CVR space 0 R /RegistryName (http://www.color.org) >> ]}\
\input glyphtounicode.tex\
\input glyphtounicode-cmr.tex\
\pdfgentounicode=1\
\RequirePackage[draft,pdftex,pdfpagemode=UseNone,bookmarks=false]{hyperref}\
\renewcommand*{\jmlrwritepdfinfo}{\begingroup\let\&=\xmpAmp\IfFileExists{pdfx-1a.xmp}{\pdfcompresslevel=0\immediate\pdfobj stream attr {/Type /Metadata /Subtype /XML} file{pdfx-1a.xmpi} \pdfcatalog{/Metadata \the\pdflastobj space 0 R}}\pdfinfo{/Author (\xmpAuthor)\% /Title (\xmpTitle)\% /Creator (\xmpProducer)\% /CreationDate (\convDate)\% /ModDate (\convDate)\% /Producer (\xmpProducer)\% /Trapped /False /GTS_PDFXVersion (PDF/X-1:2001)\%}}\begin{group}
\let\&=\xmpAmp\IfFileExists{pdfx-1a.xmp}{\pdfcompresslevel=0\immediate\pdfobj stream attr {/Type /Metadata /Subtype /XML} file{pdfx-1a.xmpi} \pdfcatalog{/Metadata \the\pdflastobj space 0 R}}\pdfinfo{/Author (\xmpAuthor)\% /Title (\xmpTitle)\% /Creator (\xmpProducer)\% /CreationDate (\convDate)\% /ModDate (\convDate)\% /Producer (\xmpProducer)\% /Trapped /False /GTS_PDFXVersion (PDF/X-1:2001)\%}}\end{group}
Load `combine` class. This requires a little bit of trickery.

```latex
\let\@org@LoadClass\LoadClass
\def\LoadClass#1{\let\LoadClass\@org@LoadClass\@org@LoadClass{jmlr}}
\let\c@lenddoca\@org@c@lenddoca
```

Requires `combnat` to work with `natbib`:

```latex
\RequirePackage{combnat}
```

Need to apply a patch to `combnat` (this has now been fixed in `combnat`, but user might be using an old version):

```latex
\renewcommand\c@laNAT@parse[1]{{%
\let\protect=\@unexpandable@protect\let~\relax
\let\active@prefix=\@gobble
\xdf\NAT@temp{\csname b@#1\@extra@b@citeb\endcsname}}%
\expandafter\NAT@split\NAT@temp?????@@%
\expandafter\NAT@parse@date\NAT@date??????@@%
\ifciteindex\NAT@index\fi}
```

```latex
\renewcommand\c@lbNAT@parse[1]{{%
\let\protect=\@unexpandable@protect\let~\relax
\let\active@prefix=\@gobble
\xdf\NAT@temp{\csname B?\jobname?@#1\@extra@b@citeb\endcsname}}%
\expandafter\NAT@split\NAT@temp?????@@%
\expandafter\NAT@parse@date\NAT@date??????@@%
\ifciteindex\NAT@index\fi}
```

Start new chapters on the right hand page:

```latex
\newif\if@openright
\newcommand*{\@post@hyperref}{%}
```

91
Define commands that affect the formatting:

\pagerule \textbf{Draw line across the text block.}
\newcommand*{\pagerule}[1][0pt]{\par\noindent\rule[#1]{\linewidth}{2pt}\par}

\textbf{Preface} The preface environment starts a new chapter but also writes information to the main aux file for \texttt{makejmlrbook}. The optional argument is the file name for the extracted preface.

\ifjmlrhtml
\newenvironment{preface}[1][preface]{\noindent\HCode{<h2>\prefacename</h2>}}{\jmlrprefaceheader\protected@write\@mainauxout{}{\string\@prefacestart{\thepage}{\arabic{page}}}\protected@write\@mainauxout{}{\string\@prefacefile{\jmlrprefacepath}{#1}}}\else\newenvironment{preface}[1][preface]{\jmlrprefaceheader\protected@write\@mainauxout{}{\string\@prefacestart{\thepage}{\arabic{page}}}\protected@write\@mainauxout{}{\string\@prefacefile{\jmlrprefacepath}{#1}}}\fi

\newcommand*{\prefacename}{Preface}
\newcommand*{\@prefacefile}[2]{}
\newcommand*{\@prefacestart}[2]{}
\newcommand*{\@prefaceend}[1]{}
\newcommand*{\@prefaceeditor}[1]{}

\textbf{Cross-reference chapters:}
\newcommand*{\chapterrefname}{Chapter}
\newcommand*{\chaptersrefname}{Chapters}
Cross-referencing imported articles:

\newcommand*{\chapterref}{%\objectref{#1}{\chapterrefname}{\chaptersrefname}{}{}}

\newcommand*{\articlepageref}{%\pageref{#1jmlrstart}\
\newcommand*{\articlepagesref}{%\pageref{#1jmlrstart}--\pageref{#1jmlrend}\
\newcommand*{\@articlepagesref}{%\pageref{jmlrstart}--\pageref{jmlrend}\
\newcommand*{\articletitleref}{%\nameref{#1jmlrstart}\
\newcommand*{\articleauthorref}{%\@ifundefined{@jmlr@author@#1}{{\ClassWarning{jmlrbook}{Label ‘#1’ undefined}}}{\@nameuse{@jmlr@author@#1}}\
\newcommand*{\@jmlr@author@hey}{%\
\newcommand*{\jmlrtitlehook}{%\hypersetup{pdftitle={\@shorttitle}}\def\xmpTitle{\@title}\
\newcommand*{\jmlrauthorhook}{%\hypersetup{pdfauthor={\@author}}\
\newcommand*{\jmlrauthorhook}{%\ifx\@author\@empty\hypersetup{pdfauthor={\@empty}}\else
Provided for book production editors to fine tune the book line breaking.

Set article title

The book's title:

Make it easier to modify the book's title page:
Determine if the given element has been set:

\IfTitleElement\newcommand{\IfTitleElement}[3]{% 
\expandafter\ifx\csname @#1\endcsname\@empty 
#2, 
\else 
#3, 
\fi} 
\fi}

\titlebody\newcommand{\titlebody}{% 
\SetTitleElement{title}{\maintitlefont}{\postmaintitle}% 
\SetTitleElement{volume}{\mainvolumefont}{\postmainvolume}% 
\SetTitleElement{subtitle}{\mainsubtitlefont}{\postmainsubtitle}% 
\SetTitleElement{logo}{\mainlogofont}{\postmainlogo}% 
\SetTitleElement{team}{\mainteamfont}{\postmainteam}% 
\SetTitleElement{author}{\mainauthorfont}{\postmainauthor}% 
\SetTitleElement{productioneditor}{\mainproductioneditorfont}{\postmainproductioneditor}%} 
{\postmainproductioneditor} 
\c@lamaketitle 
\ifjmlrhtml \renewcommand{\c@lamaketitle}{% 
\HCode{<table cellpadding="2" cellspacing="2" border="0" width="100\%">}% 
\HCode{<tbody><tr><td valign="top">}% 
\HCode{<h1>}% 
\@title\newline 
\ifx\@jmlrvolume\@empty 
\else 
Volume \@volume 
\fi 
\ifx\@subtitle\@empty\else: \fi 
\fi 
\else 
\HCode{</h1>}% 
\newline 
\textbf{Editors: \@author} 
\HCode{</td><td valign="top">}% 
\@logo 
\HCode{</td></tr></tbody></table>}% 
\let\maintitle\@title} 
\else \renewcommand{\c@lamaketitle}{% 
\c@lamaketitle} 
\else
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. 

An author can sign off at the end of a chapter (such as a foreword). Each author should be separated with \Author.

\newenvironment{authorsignoff}{% 
\def\Author##1{\begin{tabular}{@{}p{\linewidth}@{}}##1\end{tabular} \par\vskip\baselineskip
\noindent\ignorespaces}}{\par\vskip\baselineskip
\noindent\ignorespaces}
Reset counters at the start of each imported article
\newcommand{\zeroextracounters}{\%}
\ifundefined{c@theorem}{\%}{\setcounter{theorem}{0}}\
\ifundefined{c@algorithm}{\%}{\setcounter{algorithm}{0}}\
\ifundefined{c@algocf}{\%}{\setcounter{algocf}{0}}\
\ifundefined{c@example}{\%}{\setcounter{example}{0}}\
\ifundefined{c@definition}{\%}{\setcounter{definition}{0}}\
\}
\renewcommand{\contentsname}{Redefine title of the table of contents
\renewcommand*{\contentsname}{\textit{Table of Contents}}
\\renewcommand*{\theHalgorithm}{\%}
\def\theHalgorithm{\theHchapter.\thealgorithm}
\\renewcommand*{\theHsection}{\%}
\def\theHsection{\theHchapter.\thesection}
\\renewcommand*{\theHsubsection}{\%}
\def\theHsubsection{\theHchapter.\thesubsection}
\\renewcommand*{\theHsubsubsection}{\%}
\def\theHsubsubsection{\theHchapter.\thesubsubsection}
\\renewcommand*{\theHparagraph}{\%}
\def\theHparagraph{\theHchapter.\theparagraph}
\\renewcommand*{\theHsubfigure}{\%}
\def\theHsubfigure{\theHfigure.\arabic{subfigure}}
\\renewcommand*{\theHsubtable}{\%}
\def\theHsubtable{\theHtable.\arabic{subtable}}
\\renewcommand*{\theHfootnote}{\%}
\def\theHfootnote{\theHchapter.\alpha{footnote}}
\\renewcommand*{\theHtable}{\%}
\def\theHtable{\theHchapter.\arabic{table}}
\\renewcommand*{\theHfigure}{\%}
\def\theHfigure{\theHchapter.\arabic{figure}}
\\renewcommand*{\theHalgocf}{\%}
\def\theHalgocf{\theHchapter.\thealgocf}
\\renewcommand*{\mailto}{\%}
\renewcommand*{\mailto}[1]{\href{mailto:#1}{\nolinkurl{#1}}}
\\c@lhaschapterfalse
\let\c@lthesec\thesection
Make sure the hyperlinks work
\newcommand{\doimportchapterHref}{\edef{\@currentHref}{chapter.\thechapter}}
\def{\toclevel@appendix}{-1}

hyperref and combine don't play nicely need to fudge the cross-referencing a bit.

\Xprefix
\def{\Xprefix}{}

\Xref
\DeclareRobustCommand{\Xref}{\@ifstar{\@Xrefstar}{T\@Xref}}
\Xpageref
\DeclareRobustCommand{\Xpageref}{\@ifstar{\@Xpagerefstar}{T\@Xpageref}}

\HyRef@StarSetXRef
\def{\HyRef@StarSetXRef}{#1}{% 
\begingroup
\Hy@safe@activestrue
\edef{x}{#1}
\@onelevel@sanitize{x}
\edef{x}{\endgroup
\noexpand\HyRef@@StarSetRef\expandafter\noexpand\csname r\Xprefix\endcsname{x}}%}

\@Xrefstar
\def{\@Xrefstar}{#1}{% 
\HyRef@StarSetXRef{#1}\@firstoffive
}

\@Xpagerefstar
\def{\@Xpagerefstar}{#1}{% 
\HyRef@StarSetXRef{#1}\@secondoffive
}

\end{macocode}
\end{macro}
\begin{macro}{\@Xrefstar}
\begin{macrocode}
\def{\@Xrefstar}{#1}{% 
\HyRef@StarSetXRef{#1}\@firstoffive
}
\@Xpagerefstar
\def{\@Xpagerefstar}{#1}{% 
\HyRef@StarSetXRef{#1}\@secondoffive
}
\T@Xref
\def\T@Xref#1{\%
  \Hy@safe@activestrue
  \expandafter\@setXref\csname r@\Xprefix#1\endcsname\@firstoffive{#1}\%
  \Hy@safe@activesfalse
\}%
\T@Xpageref
\def\T@Xpageref#1{\%
  \Hy@safe@activestrue
  \expandafter\@setXref\csname r@\Xprefix#1\endcsname\@secondoffive{#1}\%
  \Hy@safe@activesfalse
\}%
\Xlabel
\def\Xlabel#1{\%
  \@bsphack
  \begingroup
    \@onelevel@sanitize\@currentlabelname
    \edef\@currentlabelname{\expandafter\strip@period\@currentlabelname.\relax\@@@}
    \protected@write\@mainauxout{}{\string\newlabel{\Xprefix#1}{\thepage}{\@currentlabelname}{\currentHref}{}}
  \endgroup
  \@esphack
\}%
\let\ltx@label\Xlabel
\@setXref
\def\@setXref#1#2#3{% csname, extract group, refname
  \ifx#1\relax
    \protect\G@refundefinedtrue
    \nfs@text{\reset@font\bfseries ??}%
    \@latex@warning{Reference '#3' on page \thepage \space undefined%}
  \else
    \expandafter\Hy@setref@link#1\@empty\@empty\@nil{#2}%
  \fi
}%
\@secondoffive
\AtBeginDocument{%
  \renewcommand\@secondoffive[5]{#2}%
}

Something’s redefining \@secondoffive incorrectly at the start of the document when hyperref’s draft mode is on. Need to fix it.
\AtBeginDocument{%
  \renewcommand\@secondoffive[5]{#2}%
}
Need to write imported chapter label to main auxfile.

\setimportlabel
\def\setimportlabel{\let\@mainauxout\auxout \let\HRlabel\label}
\AtBeginDocument{\@jmlrbegindoc}
\@jmlrbegindoc
\newcommand*{\@jmlrbegindoc}{\@setimportlabel\gdef\@setimportlabel{\let\ref\Xref \let\pageref\Xpageref}\let\ReadBookmarks\relax}
\@ifundefined{@beginmainauxhook}{}{\@beginmainauxhook}
\importpapers
\newenvironment{jmlrpapers}{\def@begindocumenthook{\@jmlrbegindoc}\let\bibcite\c@lbNATbibcite}{\def@enddocumenthook{\@jmlrenddoc}\let\bibcite\c@lbNAT@testdef}
\begin{papers}\[
\begin{papers}\[
\if@twocolumn
\let\jmlr@restore\twocolumn
\else
\let\jmlr@restore\onecolumn
\fi
\jmlrarticlecommands
\importpubpaper@importpubpaper
\importpaper@importpaper
\importarticle@importarticle
\let\label\Xlabel
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.

\let\addtomaincontents\newcommand\[2\]{\protected@write\@mainauxout\string\@writefile{#1}{#2}}
\newcommand*{\@write@author}{\def\@jmlr@authors@sep{ and }\protected@write\@mainauxout\string\@new@articleauthor{#1}{#2}}
\newcommand*{\@new@articleauthor}{\expandafter\gdef\csname @jmlr@author@#1\endcsname{\hyperref[#1jmlrstart]{#2}}}
\@jmlr@import \LaTeX{} should ignore \@jmlr@import as it’s only needed for makejmlrbook:
\newcommand*{\@jmlr@import}{\@write@jmlr@import}
\@jmlr@apdimport As above but for files imported in the appendix.
\newcommand*{\@jmlr@apdimport}{\@write@jmlr@apdimport}
\@jmlr@apdimport As above but for files imported in the appendix. \LaTeX{} should ignore \@jmlr@apdimport as it’s only needed for makejmlrbookgui:
\newcommand*{\@jmlr@apdimport}{\@write@jmlr@apdimport}
\@write@jmlr@import Initialise to \@write@jmlr@import and switch to \@write@jmlr@apdimport in the appendices.
\def\@write@jmlr@import{\@write@jmlr@import}
Redefine \jmlrpremaketitlehook
\def\jmlrpremaketitlehook{%
\cleardoublepage
\phantomsection
\let\@currentlabelname\@shorttitle
\refstepcounter{chapter}%
}%

\jmlrimporthook  Hook just before document is imported.
\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.
\begin{verbatim}
\newcommand*{\@importpubpaper}[4]{\bgroup
\def\@importdir{#2/}%
\def\@importfile{#3}%
\@write@jmlr@import{#1}{#2}{#3}%
\def\@extra@b@citeb{#1}%
\def\@extra@binfo{#1}%
\jmlrpages{#4}%
\graphicspath{{\@importdir}}%
\def\jmlrmaketitlehook{%
\label{}%
\def\titlebreak{ }%
\addtomaincontents{toc}%
%
\protect\contentsline{papertitle}{\@title}{\thepage}%
\protect\contentsline{page}{\thechapter}{

\pdfbookmark{\@shorttitle}{chapter.\theHchapter}%
\def\@jmlr@authors@sep{ \& }%
\tocchapterpubauthor{\@jmlr@authors}%
%
\@jmlrabbrvproceedings
\@if\@jmlrvolume@empty
\@if\@jmlrpages@empty\else\space\fi
\else
\space\@jmlrvolume
\@if\@jmlrissue@empty
\else
(\@jmlrissue)\%
\fi
\fi
\end{verbatim}

105
Like \importpubpaper but sets the pages to the page-range for this book.

\newcommand{\importpaper}[3][]{%  
\def@importdir{#2/}  
\def@importfile{#3}  
@write@jmlr@import{#1}{#2}{#3}  
\def@extra@b@citeb{#1}  
\def@extra@binfo{#1}  
\jmlrpages{\protect@articlepagesref}  
\graphicspath{{\@importdir}}  
\jmlrmaketitlehook  
\label{}}%
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).
\importarticle Import a document that hasn't been published. Syntax: \importarticle\[\langle label\rangle\] {\langle dir\rangle} {\langle file\rangle} where \langle dir\rangle is the directory in which the paper is located and \langle file\rangle 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, \langle file\rangle is used instead.
\IfFileExists{##1}{\@org@InputIfFileExists{##1}{##2}{##3}\
\@org@InputIfFileExists{\@importdir##1}{##2}{##3}}\%
\def\Xprefix{#1}\
\jmlrimportbook

\let\ps@jmlrtps\ps@articlet
\import{\@importdir\@importfile}\
\def\Xprefix{}\
\egroup
\gdef\@shortauthor{}
\gdef\@shorttitle{}
\gdef\@firstauthor{}
\gdef\@jmlr@authors{\@jmlrauthors}
\gdef\@jmlrauthors{}
\gdef\@firstsurname{}
\newcommand{\importarticle}[3][]{\ClassError{jmlrbook}{\string\importarticle\space not permitted outside \texttt{\textbackslash jmlrpapers} environment}{}}

\addtocpart  Add a part to the TOC without printing anything in the text (but does a \texttt{\cleardoublepage}).
\newcommand{\addtocpart}[1][]{\cleardoublepage\refstepcounter{tocpart}\addtocontents{toc}{\protect\tocpart{#1}}\pdfbookmark[-1]{#1}{part.\thetocpart}}
\newcounter{tocpart}
\tocpart  Define the appearance of a part in the TOC.
\newcommand{\tocpart}[1][]{\addpenalty{-\@highpenalty}\vskip 1.0ex \parfillskip -\@pnumwidth\leavevmode \large\bfseries\advance\leftskip\@tempdima\hskip -\leftskip\protect\hfill\nobreak\hfil\nobreak\hb@xt@\@pnumwidth\null\par\penalty\@highpenalty\endgroup
Set up the layout of the chapter headings
\setlength{\prechapterskip}{3em}
\setlength{\postchapterskip}{20pt}
\chapternumberformat
\renewcommand{\chapternumberformat}[1]{\
  \Large\bfseries \@chapapp\space #1\par}
\chaptertitleformat
\renewcommand{\chaptertitleformat}[1]{\Large\bfseries #1}
\chapterformat
\renewcommand{\chapterformat}{\raggedright}

Set up the format of a part in the book (not a part in an article).
\preparthook
\renewcommand{\preparthook}{\cleardoublepage\null\vfil}
\partnumberformat
\renewcommand{\partnumberformat}[1]{\Huge\bfseries \@partapp\nobreakspace #1\par\vskip 20\p@}
\postparthook
\def\postparthook{%
  \thispagestyle{empty}%
  \vfill\newpage
  \null
  \thispagestyle{empty}%
  \newpage
}\@curparthead \textbf{The heading of the current part}
\renewcommand{\@curparthead}{}
\parttitleformat
\renewcommand{\parttitleformat}[1]{#1\gdef\@curparthead{\@partapp\space \thepart. #1}\
  \@mkboth{\@curparthead}{\@curparthead}}
\firstpageno \textbf{Change \firstpageno to do nothing as the page number will be determined by the book.}
\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 \partapp\space \@tempdima 2564 \hskip -\leftskip 2565 \renewcommand*{\numberline}[1]{\hb@xt\@tempdima 2566 {\@partapp\space ##1\hfil}} 2567 \hfil \nobreak\hfil \nobreak\hb@xt@\@pnumwidth{\hss 2568 \normalfont\normalsize #2}\par 2569 \penalty@highpenalty 2570 \endgroup 2571 \pagerule 2572 } 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 %
2581 111
\addpenalty{-@highpenalty}
\vskip 1.0em \@plus\p@
\setlength{\@tempdima}{3em}%
\begingroup
\parindent \z@ \rightskip \@pnumwidth
\parfillskip -\@pnumwidth
\leavevmode \normalsize\mdseries
\advance\leftskip\@tempdima
\hskip -\leftskip
#1\nobreak \hfil \nobreak \hb@xt@\@pnumwidth{\hss #2}\par
\penalty\@highpenalty
\endgroup
\fi}
\l@subsection
\renewcommand*{\l@subsection}[2]{%
\ifnum \c@tocdepth >\m@ne
\addpenalty{-@highpenalty}
\vskip 1.0em \@plus\p@
\setlength{\@tempdima}{3.5em}%
\begingroup
\parindent \z@ \rightskip \@pnumwidth
\parfillskip -\@pnumwidth
\leavevmode \normalsize\mdseries
\advance\leftskip\@tempdima
\hskip -\leftskip
#1\nobreak \hfil \nobreak \hb@xt@\@pnumwidth{\hss #2}\par
\penalty\@highpenalty
\endgroup
\fi}
\chaptermark
\renewcommand*{\chaptermark}[1]{%
\@mkboth{\@curparthead}{\protect\thechapter. #1}%
}
\@chaptermark
\renewcommand*{\l@chaptermark}[2]{%
\addpenalty{-@highpenalty}
\vskip 1.0em \@plus\p@
\setlength{\@tempdima}{3.5em}%
\begingroup
\parindent \z@ \rightskip \@pnumwidth
\parfillskip -\@pnumwidth
\leavevmode \normalsize\mdseries
\advance\leftskip\@tempdima
\hskip -\leftskip
#1\nobreak \hfil \nobreak \hb@xt@\@pnumwidth{\hss #2}\par
\penalty\@highpenalty
\endgroup
\fi}
\set up page styles
\firstpagehead
\newcommand{\firstpagehead}{}
\firstpagefoot
\newcommand{\firstpagefoot}{}
\headfont
\newcommand{\headfont}{%
\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 \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\hfill\thepage}%
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

114
\newcommand*{\SetNoLine}{\SetAlgoNoLine}
\newcommand*{\SetVlined}{\SetAlgoLined}
\newcommand*{\SetVlineSkip}{\SetAlCapSkip}
\newcommand*{\SetLine}{\SetAlCapHspace}
\newcommand*{\dontprintsemicolon}{\DontPrintSemicolon}
\newcommand*{\printsemicolon}{\PrintSemicolon}
\newcommand*{\incmargin}{\IncMargin}
\newcommand*{\decmargin}[1]{\DecMargin{-#1}}
\newcommand*{\setnlskip}{\SetNlSkip}
\newcommand*{\Setnlskip}{\SetNlSkip}
\newcommand*{\setalcapskip}{\SetAlCapSkip}
\newcommand*{\setalcaphskip}{\SetAlCapHspace}

\morefrontmatter
\renewcommand*{\morefrontmatter}{\pagestyle{jmlrbook}}
\def\chaptermark##1{\@mkboth{##1}{\hfill##1}}
\moremainmatter
\renewcommand*{\moremainmatter}{\pagestyle{jmlrbook}}
\def\chaptermark##1{\@mkboth{\@curparthead}{\protect\thechapter. ##1}}
\bibsection
Set the bibliography headings in the articles
\renewcommand*{\bibsection}{\section*{\refname}}
Set up the book commands:
\jmlrbookcommands
In the event that authors have used different versions of algorithm2e, define old command names.
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
jmlrpreamaketitlehook: Moved
\refstepcounter from
\jmlrmaketitlehook to
\jmlrpreamaketitlehook  ......... 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
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
\jmlrcap: Fixed typo  ............... 55
@chapterauthor: removed penalty  .. 112
\prefacename: new  .................... 92
preface: new  ....................... 92

1.12 (2012/01/05)
@jmlrauthors: new  .................... 70
@shorttitle: provided default value  .. 60
General: changed \newcommand to \providecommand ........................................... 85
removed class option prehyperref .................................................. 53
\artappendix: added chapter to \theSection to ensure unique hyperlink names in book ................. 74
\importarticle: changed @jmlrauthors to @jmlr@authors .......................... 108
changed \shorttitle to \@title .......................................................... 108
\importpaper: changed @jmlrauthors to @jmlr@authors .......................... 107
changed \shorttitle to \@title .......................................................... 107
\importpubpaper: changed @jmlrauthors to @jmlr@authors ......................... 105, 106
changed \shorttitle to \@title .......................................................... 107
\jmlrauthors: \jmlrauthors now redefines @jmlrauthors instead of @jmlrauthors ......................... 70
\jmlrprehyperref: removed @ from name so it can be defined by user .................. 53
\Name: added optional argument .................................................... 64
\thealgorithm: in definition, changed \thechapter to \theHchapter ................. 100
\thefigure: new ........................................................................ 100
\thefootnote: new ....................................................................... 100
\thetable: new ........................................................................ 100
\titlebreak: new ....................................................................... 60
1.13 (2012/02/25)
General: added \@pre@hyperref .................................................. 57
added support for pdftx-la .......................................................... 87
pdfxa: new ........................................................................ 87
preface: changed the chapter to an unnumbered one ................................. 92
1.14 (2012-04-24)
\booktableofcontents: reset page headers at end of toc .......................... 78
\booktocpostamble: new .................................................................. 78
\getTZh: fixed for times zones other than Z ............................................. 89
\jmlrbook@info: new .................................................................... 91
1.15 (2012/05/12)
\markleft: new ........................................................................ 114
\ps@jmlbook: removed dependence on \ps@headings (made consistent with article page style) .................................................. 114
\thealgocf: new ....................................................................... 100
\zeroeextracounters: added algocf and definition to reset ......................... 100
1.16 (2012/05/15)
\post@hyperref: new .................................................................... 91
1.17 (2012/05/30)
\@write@jmlr@apdimport: new .................................................................. 104
\@jmlr@apdimport: new .................................................................... 104
\@jmlrpagedef: changed initial definition to use \providecommand .......................... 69
\@jmlrpublished: changed initial definition to use \providecommand .......................... 69
\@jmlrsubmitted: changed initial definition to use \providecommand .......................... 69
\@jmlrvolume: changed initial definition to use \providecommand .......................... 69
\@jmlrworkshop: changed initial definition to use \providecommand .......................... 70
\bf: added redefinition to produce obsolete warning .................................. 82
\bookappendix: added def \@write@jmlr@import .................................................. 80
\importpaper: disable \jmlrvolume, \jmlryear and \jmlrworkshop in imported papers .................................................. 107
\it: added redefinition to produce obsolete warning .................................. 82
\logo: added optional argument ...................................................... 95
\rm: added redefinition to produce obsolete warning .................................. 83
\sc: added redefinition to produce obsolete warning .................................. 83
\sf: added redefinition to produce obsolete warning .................................. 83
\tt: added redefinition to produce obsolete warning .................................. 83
1.17 (2012/15/28)
\importarticle: set title page style for imported articles to articlet style ................. 109
1.18 (2013-10-17)
\@begintheorem: new .................................................................... 50
\@jmlrbegindoc: patched to work with auxhook ....................................... 103
\@opargbegintheorem: new .................................................................. 51
\@othm: new ........................................................................ 50
\@xthm: new ........................................................................ 50
\@ythm: new ........................................................................ 50
General: now requires calc package .................................................. 53
now requires etoolbox package .................................................. 53
118
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.

<table>
<thead>
<tr>
<th>Symbols</th>
<th>Line Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>#</td>
<td>88</td>
</tr>
<tr>
<td>%</td>
<td>90, 96</td>
</tr>
<tr>
<td>&amp;</td>
<td>55, 62, 65, 88, 90, 105, 107, 108</td>
</tr>
<tr>
<td>@@</td>
<td>102</td>
</tr>
<tr>
<td>@@par</td>
<td>59, 63, 65, 88, 90, 105, 107, 108</td>
</tr>
<tr>
<td>@@write@jmlr@apdimport</td>
<td>80</td>
</tr>
<tr>
<td>@@write@jmlr@import</td>
<td>104</td>
</tr>
<tr>
<td>@Alph</td>
<td>61, 62, 64–68, 88, 93–115</td>
</tr>
<tr>
<td>@M</td>
<td>76, 77, 80</td>
</tr>
<tr>
<td>@Xpagerefstar</td>
<td>101</td>
</tr>
<tr>
<td>@Xrefstar</td>
<td>59, 61, 64, 65, 104, 105, 107</td>
</tr>
<tr>
<td>@addtoreset</td>
<td>42, 44, 75</td>
</tr>
<tr>
<td>@afterheading</td>
<td>75, 76</td>
</tr>
<tr>
<td>@afterindentfalse</td>
<td>75, 76</td>
</tr>
<tr>
<td>@arabic</td>
<td>64, 65</td>
</tr>
<tr>
<td>@articlepagesref</td>
<td>75, 78</td>
</tr>
<tr>
<td>@Alph</td>
<td>80</td>
</tr>
<tr>
<td>@author</td>
<td>61, 62, 64–68, 88, 93–115</td>
</tr>
<tr>
<td>@authorlist</td>
<td>64, 65</td>
</tr>
<tr>
<td>@Author</td>
<td>101</td>
</tr>
<tr>
<td>@Author</td>
<td>104</td>
</tr>
<tr>
<td>@auxout</td>
<td>61</td>
</tr>
<tr>
<td>@auxout</td>
<td>65, 66, 93, 94, 96</td>
</tr>
<tr>
<td>@authorlist</td>
<td>64, 65</td>
</tr>
<tr>
<td>@firstauthor</td>
<td>80</td>
</tr>
<tr>
<td>@firstauthor</td>
<td>101</td>
</tr>
<tr>
<td>@firstoffive</td>
<td>101, 102</td>
</tr>
<tr>
<td>@firstoftwo</td>
<td>41</td>
</tr>
<tr>
<td>@firstofsurname</td>
<td>72–73</td>
</tr>
<tr>
<td>@firstofsurname</td>
<td>73</td>
</tr>
<tr>
<td>@firstofsurname</td>
<td>75</td>
</tr>
<tr>
<td>@firstofsurname</td>
<td>76</td>
</tr>
<tr>
<td>@firstofsurname</td>
<td>77</td>
</tr>
<tr>
<td>@firstofsurname</td>
<td>78</td>
</tr>
<tr>
<td>@firstofsurname</td>
<td>79</td>
</tr>
<tr>
<td>@firstofsurname</td>
<td>80</td>
</tr>
<tr>
<td>@firstofsurname</td>
<td>81</td>
</tr>
<tr>
<td>@firstofsurname</td>
<td>82</td>
</tr>
<tr>
<td>@firstofsurname</td>
<td>83</td>
</tr>
<tr>
<td>@firstofsurname</td>
<td>84</td>
</tr>
<tr>
<td>@firstofsurname</td>
<td>85</td>
</tr>
<tr>
<td>@firstofsurname</td>
<td>86</td>
</tr>
<tr>
<td>@firstofsurname</td>
<td>87</td>
</tr>
<tr>
<td>@firstofsurname</td>
<td>88</td>
</tr>
<tr>
<td>@firstofsurname</td>
<td>89</td>
</tr>
<tr>
<td>@firstofsurname</td>
<td>90</td>
</tr>
<tr>
<td>@firstofsurname</td>
<td>91</td>
</tr>
<tr>
<td>@firstofsurname</td>
<td>92</td>
</tr>
<tr>
<td>@firstofsurname</td>
<td>93</td>
</tr>
<tr>
<td>@firstofsurname</td>
<td>94</td>
</tr>
<tr>
<td>@firstofsurname</td>
<td>95</td>
</tr>
<tr>
<td>@firstofsurname</td>
<td>96</td>
</tr>
<tr>
<td>@forenames</td>
<td>64, 66</td>
</tr>
<tr>
<td>@forenames</td>
<td>65</td>
</tr>
<tr>
<td>@getinitial</td>
<td>64</td>
</tr>
<tr>
<td>@getinitial</td>
<td>65</td>
</tr>
<tr>
<td>@getinitial</td>
<td>66</td>
</tr>
<tr>
<td>@getinitial</td>
<td>67</td>
</tr>
<tr>
<td>@getinitial</td>
<td>68</td>
</tr>
<tr>
<td>@getinitial</td>
<td>69</td>
</tr>
<tr>
<td>@getinitial</td>
<td>70</td>
</tr>
<tr>
<td>@gobble</td>
<td>72, 73</td>
</tr>
<tr>
<td>@gobble</td>
<td>74</td>
</tr>
<tr>
<td>@gobble</td>
<td>75</td>
</tr>
<tr>
<td>@gobble</td>
<td>76</td>
</tr>
<tr>
<td>@gobble</td>
<td>77</td>
</tr>
<tr>
<td>@gobble</td>
<td>78</td>
</tr>
<tr>
<td>@gobble</td>
<td>79</td>
</tr>
<tr>
<td>@gobble</td>
<td>80</td>
</tr>
<tr>
<td>@gobble</td>
<td>81</td>
</tr>
<tr>
<td>@gobble</td>
<td>82</td>
</tr>
<tr>
<td>@gobble</td>
<td>83</td>
</tr>
<tr>
<td>@gobble</td>
<td>84</td>
</tr>
<tr>
<td>@gobble</td>
<td>85</td>
</tr>
<tr>
<td>@gobble</td>
<td>86</td>
</tr>
<tr>
<td>@gobble</td>
<td>87</td>
</tr>
<tr>
<td>@gobble</td>
<td>88</td>
</tr>
<tr>
<td>@gobble</td>
<td>89</td>
</tr>
<tr>
<td>@gobble</td>
<td>90</td>
</tr>
<tr>
<td>@gobble</td>
<td>91</td>
</tr>
<tr>
<td>@gobble</td>
<td>92</td>
</tr>
<tr>
<td>@gobble</td>
<td>93</td>
</tr>
<tr>
<td>@gobble</td>
<td>94</td>
</tr>
<tr>
<td>@gobble</td>
<td>95</td>
</tr>
<tr>
<td>@gobble</td>
<td>96</td>
</tr>
<tr>
<td>@gobble</td>
<td>97</td>
</tr>
<tr>
<td>@gobble</td>
<td>98</td>
</tr>
<tr>
<td>@gobble</td>
<td>99</td>
</tr>
<tr>
<td>@gobble</td>
<td>100</td>
</tr>
<tr>
<td>@gobble</td>
<td>101</td>
</tr>
<tr>
<td>@gobble</td>
<td>102</td>
</tr>
<tr>
<td>@gobble</td>
<td>103</td>
</tr>
<tr>
<td>@gobble</td>
<td>104</td>
</tr>
<tr>
<td>@gobble</td>
<td>105</td>
</tr>
<tr>
<td>@gobble</td>
<td>106</td>
</tr>
<tr>
<td>@gobble</td>
<td>107</td>
</tr>
<tr>
<td>@gobble</td>
<td>108</td>
</tr>
<tr>
<td>@gobble</td>
<td>109</td>
</tr>
<tr>
<td>@gobble</td>
<td>110</td>
</tr>
<tr>
<td>@gobble</td>
<td>111</td>
</tr>
<tr>
<td>@gobble</td>
<td>112</td>
</tr>
<tr>
<td>@gobble</td>
<td>113</td>
</tr>
<tr>
<td>@gobble</td>
<td>114</td>
</tr>
<tr>
<td>@gobble</td>
<td>115</td>
</tr>
<tr>
<td>@gobble</td>
<td>116</td>
</tr>
<tr>
<td>@gobble</td>
<td>117</td>
</tr>
<tr>
<td>@gobble</td>
<td>118</td>
</tr>
<tr>
<td>@gobble</td>
<td>119</td>
</tr>
<tr>
<td>@gobble</td>
<td>120</td>
</tr>
</tbody>
</table>

120