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GUIDE

International Journal of Production Research LATEX guide for authors (Style 2 + Chicago author-date reference style)

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This guide is for authors who are preparing papers for the *International Journal of Production Research* (*tPRS*) using the LATEX document preparation system and the class file tPRS2e.cls, which is available via the journal's home page on the Taylor & Francis website.

Keywords: submission instructions; source file coding; environments; reference citations; fonts; numbering (Please provide three to six keywords taken from terms used in your manuscript)

1. Introduction

In order to assist authors in the process of preparing a manuscript for the *International Journal of Production Research* (tPRS), the journal's layout style has been implemented as a LATEX 2ε class file based on the article document class. A BIBTEX style file is also provided to assist with the formatting of your references in a style appropriate to that of the journal.

Commands that differ from or are provided in addition to the standard IATEX $2_{\mathcal{E}}$ interface are explained in this guide. The guide alone is not intended as a substitute for an appropriate IATEX $2_{\mathcal{E}}$ manual.

The tPRSguide.tex file can also be used as a template for composing an article for submission by cutting, pasting, inserting and deleting text as appropriate, using the IATEX environments provided (e.g. \begin{abstract}, \begin{keywords}).

1.1 The tPRS document class

The tPRS class file preserves the standard $\text{ETEX}\,2_{\mathcal{E}}$ interface such that any document that can be produced using article.cls can also be produced with minimal alteration using the tPRS document class. However, the measure (the width of the text on a page) differs from the default for article.cls, therefore line breaks will change and some long equations may need to be reformatted accordingly.

If your article is accepted for publication in the journal, it will be typeset in Monotype Times. As most authors do not own this font, it is inevitable that the page make-up will alter with the change of font. Please therefore ignore details such as slightly long lines of text, or figures/tables not appearing in exact synchronization with their citations in the text: these details will be dealt with by the typesetter during preparation of the proofs. Similarly, it is unnecessary to spend time

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addressing warnings in the log file – if your .tex file compiles to produce a PDF document that correctly reflects how you wish your paper to appear, such warnings will not prevent your source files being imported into the typesetter's program.

1.2 Submission of PTEX articles to the journal

Manuscripts for possible publication in the journal should be submitted to the Editors for review as directed in the journal's Instructions for Authors, which may be found at http://www.tandf.co.uk/journals/authors/tprsauth.asp.

Manuscripts created using LATEX should be converted to PDF format prior to submission. The LATEX source files and any graphics files will be required in addition to the final PDF version when final, revised versions of accepted manuscripts are submitted.

'Open-source' IATEX 2_{ε} should be used in preference to proprietary systems such as TCILaTeX or Scientific WorkPlace; similarly, class files such as REVTEX that produce a document in the style of a different publisher or journal should not be used for preference.

Please ensure that any author-defined macros are gathered together in the preamble of your .tex file, just before the **\begin{document}** command. Note that if serious problems are encountered with the coding of a paper (missing author-defined macros, for example), it may prove necessary to divert it to conventional typesetting, i.e. it will be re-keyed.

2. Using the tPRS class file

If the tPRS2e.cls file is not already in the appropriate system directory for \LaTeX 2ε files, either arrange for it to be put there, or simply copy it to your working folder. In order to use the tPRS document class, replace the command \documentclass{article} at the beginning of your document with the command \documentclass{tPRS2e}.

The following document-class options should not be used with the tPRS class file:

- 10pt, 11pt, 12pt unavailable;
- oneside, twoside not necessary, oneside is the default;
- leqno, titlepage should not be used;
- onecolumn not necessary as it is the default style.

The geometry package and commands associated with it should also not be used to adjust the page dimensions.

3. Additional features

3.1 Title, authors' names, abstract and keywords

The title should be generated at the beginning of your article using the \maketitle command. In the final version, the author name(s) and affiliation(s) must be followed immediately by \maketitle as shown below in order for them to be displayed in your PDF document. To prepare an anonymous version for peer review, you can put the \maketitle between the \title and the \author in order to conceal the authors' identities from the reviewers. Next you should include an abstract, which should be enclosed within an abstract environment. For example, the titles for this guide begin as follows:

\title{\textit{International Journal of Production Research} \LaTeX\ guide
for authors (Style 2 + Chicago author-date reference style)}

\name{A.N. Authora\$^{\ast}\$\thanks{\$^\ast\$Corresponding author. Email: latex.helpdesk@tandf.co.uk}

and I.T. Consultantb}

\affil{aTaylor \& Francis, 4 Park Square, Milton Park,

Abingdon, UK; bInstitut f\"{u}r Informatik,

Albert-Ludwigs-Universit\"{a}t, Freiburg, Germany}

\received{v5.0 released June 2015} }

\maketitle

\begin{abstract}

This guide is for authors who are preparing papers for the \textit{International Journal of Production Research} (\textit{tPRS}) using the \LaTeX\ document preparation system and the class file \texttt{tPRS2e.cls}, which is available via the journal's home page on the Taylor \& Francis website. \end{abstract}

A list of keywords should follow the abstract as required by the journal, enclosed within a keywords environment, i.e. \begin{keywords}...\end{keywords}.

3.2Additional footnotes to the title or authors' names

The \thanks command may be used to produce additional footnotes to the title or authors' names if required. Footnote symbols for this purpose should be used in the order: † (coded as \dagger), \ddagger (\ddagger), \S (\S), \P (\P), \parallel (\\I), $\dagger\dagger$ (\dagger\dagger), $\ddagger\ddagger$ (\ddagger\ddagger), $\S\S$ (\S\S), $\P\P$ (\P\P), $\|\|$ (\|\|).

Note that any footnotes to the main text will automatically be assigned the superscript symbols 1, 2, 3, etc. by the class file.¹

3.3 Lists

The tPRS class file provides numbered and unnumbered lists using the enumerate environment and bulleted lists using the itemize environment.

The enumerated list will number each list item with arabic numerals by default. For example,

- (1) first item
- (2) second item
- (3) third item

was produced by

\begin{enumerate}

\item first item

\item second item

\item third item

\end{enumerate}

Alternative numbering styles can be achieved by inserting an optional argument in square brackets to each \item, e.g. \item[(i)] first item to create a list numbered with roman numerals.

¹If preferred, the endnotes package may be used to set the notes at the end of your text, before the bibliography. The symbols will be changed to match the style of the journal if necessary by the typesetter.

Unnumbered lists can also be produced using the enumerate environment. For example,

First unnumbered item Second unnumbered item Third unnumbered item

was produced by

\begin{enumerate} \item[] First unnumbered item \item[] Second unnumbered item

\item[] Third unnumbered item

\end{enumerate}

Bulleted lists are provided using the itemize environment. For example,

- First bulleted item
- Second bulleted item
- Third bulleted item

was produced by

```
\begin{itemize}
  \item First bulleted item
  \item Second bulleted item
  \item Third bulleted item
\end{itemize}
```

4. Some guidelines for using standard features

The following notes are intended to help you achieve the best effects with the tPRS2e class file.

4.1 Sections

 \LaTeX 2_{ε} provides five levels of section heading, all of which are defined in the tPRS2e class file:

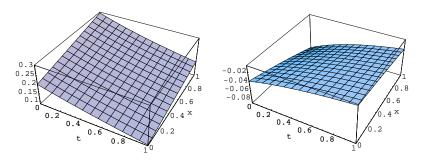
- (A) \section
- (B) \subsection
- (C) \subsubsection
- (D) \paragraph
- (E) \subparagraph

Section, subsection, subsubsection and paragraph headings are numbered automatically. If you need additional text styles in the headings, see the examples given in Section 5.

4.2 Illustrations (figures)

See 'Instructions for Authors' in the journal's home page on the Taylor & Francis website for how to submit artwork (note that requests to supply figures and tables separately from text are for the benefit of authors using Microsoft Word; authors using LATEX may incorporate these at the appropriate locations). The source files of any illustrations will be required when the final, revised version is submitted. Authors should ensure that their figures are suitable (in terms of lettering size, etc.) for the reductions they intend.

The tPRS class file will cope with most positioning of your illustrations and you should not



- (a) An example of an individual figure sub-caption.
- (b) A slightly shorter sub-caption.

Figure 1. Example of a two-part figure with individual sub-captions showing that captions are flush left and justified if greater than one line of text.

normally need to use the optional placement specifiers of the figure environment. Figure captions should appear below the figure itself, therefore the \caption command should appear after the figure. For example, Figure 1 with caption and sub-captions is produced using the following commands:

```
\begin{figure}
\begin{center}
\subfigure[An example of an individual figure sub-caption.]{
\resizebox*{5cm}{!}{\includegraphics{senu_gr1.eps}}}\hspace{6pt}
\subfigure[A slightly shorter sub-caption.]{
\resizebox*{5cm}{!}{\includegraphics{senu_gr2.eps}}}
\caption{Example of a two-part figure with individual sub-captions showing that captions are flush left and justified if greater than one line of text.} \label{sample-figure}
\end{center}
\end{figure}
```

The \subfigure{} and \includegraphics{} commands require subfigure.sty and graphicx.sty. The former is called in the preamble of the tPRSguide.tex file (in order to allow your choice of an alternative package if preferred) and the latter by the tPRS2e class file; both are included with the LATEX style guide package for this journal for convenience. Please supply any additional figure macros you use with your article in the preamble of your .tex file before \begin{document}.

To ensure that figures are correctly numbered automatically, the \label{} command should be inserted just after the \caption{} command, or in its argument.

The epstopdf package can be used to incorporate Encapsulated PostScript (.eps) illustrations when using PDFLATEX, etc. Please provide the original .eps source files rather than the generated PDF images of those illustrations for production purposes.

4.3 Tables

The tPRS class file will cope with most positioning of your tables and you should not normally need to use the optional placement specifiers of the table environment.

The tabular environment can be used as illustrated here to produce tables with appropriately spaced single thick and thin horizontal rules, which are allowed, if desired. Thick rules should be used at the head and foot only, and thin rules elsewhere as appropriate. Commands to redefine quantities such as \arraystretch should be omitted.

Table 1. Example of a table showing that its caption is as wide as the table itself and justified.

Class ^a	γ_1	${\gamma_2}^{ m b}$	$\langle \gamma \rangle$	G	f	θ_c
BL Lacs FSRQs	5 5	36 40	7 11	$-4.0 \\ -2.3$	$\begin{array}{c} 1.0 \times 10^{-2} \\ 0.5 \times 10^{-2} \end{array}$	10° 14°

^aThis footnote shows what footnote symbols to use.

The table caption appears above the body of the table in tPRS style, therefore the \tbl command should be used before the body of the table. For example, Table 1 is produced using the following commands:

```
\begin{table}
\tbl{Example of a table showing that its caption is as wide as the table
  itself and justified.}
{\begin{tabular}[1]{@{}lcccccc}\toprule
   Class\textsuperscript{a} & $\gamma _1$ & $\gamma _2$\textsuperscript{b}
         & $\langle \gamma \rangle$ & $G$ & $|{\bm f}|$ & $\theta _{c}$ \\
\colrule
  BL Lacs & 5 & 36 & 7 & $-4.0$ & $1.0\times 10^{-2}$ & 10$^\circ$ \\
  FSRQs & 5 & 40 & 11 & $-2.3$ & $0.5\times 10^{-2}$ & 14$^\circ$ \\
\botrule
\end{tabular}}
\tabnote{\textsuperscript{a}This footnote shows what footnote symbols to use.}
\tabnote{\textsuperscript{b}This footnote shows the text turning over when a
  long footnote is added.}
\label{sample-table}
\end{table}
```

To ensure that tables are correctly numbered automatically, the \label{} command should be inserted just before \end{table}.

Tables produced using the booktabs package of macros for type setting tables are also compatible with the tPRS class file.

4.4 Landscape pages

If a table or illustration is too wide to fit the measure it will need to be rotated, along with its caption, through 90° anticlockwise. Landscape illustrations and/or tables can be produced using the **rotating** package, which is called by the tPRS class file. The following commands (for example) can be used to produce such pages.

```
\setcounter{figure}{0}
\begin{sidewaysfigure}
\centerline{\epsfbox{figname.eps}}
\caption{Example landscape figure caption.}
\label{landfig}
\end{sidewaysfigure}
\setcounter{table}{0}
\begin{sidewaystable}
```

^bThis footnote shows the text turning over when a long footnote is added.

Before any such float environment, use the \setcounter command as above to fix the numbering of the caption. Subsequent captions will then be automatically renumbered accordingly.

The \epsfbox{} command requires epsfig.sty, which is called by the tPRS2e class file and included with the LATEX style guide package for this journal for convenience.

4.5 Theorem-like structures

A predefined **proof** environment is provided by the **amsthm** package (which is called by the class file), as follows:

Proof. More recent algorithms for solving the semidefinite programming relaxation are particularly efficient, because they explore the structure of the MAX-CUT problem. \Box

This was produced by simply typing:

\begin{proof}

More recent algorithms for solving the semidefinite programming relaxation are particularly efficient, because they explore the structure of the MAX-CUT problem. \end{proof}

Other theorem-like environments (theorem, lemma, corollary, etc.) need to be defined as required, e.g. using \newtheorem{theorem}{Theorem} in the preamble of your .tex file before \begin{document}. The format of the text in these environments may be changed if necessary to match the style of the journal by the typesetter during preparation of your proofs.

4.6 Typesetting mathematics

4.6.1 Displayed mathematics

The tPRS class file will set displayed mathematics centred on the measure without equation numbers if the LATEX standard commands open ($\[\]$) and close ($\]$) square brackets are used as delimiters. The equation

$$\sum_{i=1}^{p} \lambda_i = \operatorname{trace}(\mathbf{S}) \qquad i \in \mathbb{R}$$

was typeset using the commands

```
\[
\sum_{i=1}^p \lambda_i = {\rm trace}({\textrm{\bf S}})\qquad
i\in {\mathbb R}
\]
```

For those of your equations that you wish to be automatically numbered sequentially throughout the text, use the equation environment, e.g.

$$\sum_{i=1}^{p} \lambda_i = \operatorname{trace}(\mathbf{S}) \qquad i \in \mathbb{R}$$
 (1)

was typeset using the commands

```
\begin{equation}
  \sum_{i=1}^p \lambda_i = {\rm trace}({\textrm{\bf S}})\qquad
  i\in {\mathbb R}
\end{equation}
```

Part numbers for sets of equations may be generated using the subequations environment, e.g.

$$\varepsilon \rho w_{tt}(s,t) = N[w_s(s,t), w_{st}(s,t)]_s, \tag{2a}$$

$$w_{tt}(1,t) + N[w_s(1,t), w_{st}(1,t)] = 0, (2b)$$

which was generated using the commands

This is made possible by the subeqn package, which is called by the class file. If you put the \label{file} just after the $\begin{subequations}$ line, references will be to the collection of equations, '(2)' in the example above. Or, like the example code above, you can reference each equation individually – e.g. '(2a)'.

Displayed mathematics should be given end-of-line punctuation appropriate to the running text sentence of which it forms a part, if required.

4.6.2 Bold math italic symbols

To get bold math italic you can use \bm, which works for all sizes, e.g.

```
\sffamily
\begin{equation}
    {\rm d}({\bm s_{t_{\bm u}}) = \langle{\bm\alpha({\sf{\textbf L}})}
    [RM({\bm X}_y + {\bm s}_t) - RM({\bm x}_y)]^2 \rangle
\end{equation}
\normalfont
```

produces

$$d(s_{t_u}) = \langle \boldsymbol{\alpha}(\mathbf{L})[RM(\boldsymbol{X}_y + \boldsymbol{s}_t) - RM(\boldsymbol{x}_y)]^2 \rangle$$
(3)

Note that subscript, superscript, subscript to subscript, etc. sizes will take care of themselves and are italic, not bold, unless coded individually. \bm produces the same effect as \boldmath. \sffamily...\normalfont allows upright sans serif fonts to be created in math mode by using the control sequence '\sf'.

4.6.3Bold Greek

Bold lowercase as well as uppercase Greek characters can be obtained by {\bm \gamma}, which gives γ , and {\bm \Gamma}, which gives Γ .

4.6.4 Upright lowercase Greek characters and the upright partial derivative sign

Upright lowercase Greek characters can be obtained with the tPRS class file by inserting the letter 'u' in the control code for the character, e.g. \umand \upi produce \mu (used, for example, in the symbol for the unit microns $-\mu m$) and π (the ratio of the circumference to the diameter of a circle). Similarly, the control code for the upright partial derivative ∂ is \upartial.

4.7 Acknowledgements

An unnumbered section, e.g. \section*{Acknowledgement(s)}, should be used for thanks, etc. and included in the non-anonymous version before any Notes or References section.

4.8 Disclosure

An unnumbered section, e.g. \section*{Disclosure}, should be used to state any potential conflict of interest and included in the non-anonymous version before any Notes or References section, after any Acknowledgements and before any Funding statement.

4.9 **Funding**

An unnumbered section, e.g. \section*{Funding}, should be used for grant details, etc. and included in the non-anonymous version before any Notes or References section.

4.10 Supplemental data

Supplemental data should be referenced within your article where appropriate. An unnumbered section, e.g. \section*{Supplemental data}, detailing the supplemental data available should be placed before the list of references, and should include a brief description of each supplemental file.

4.11 Notes

An unnumbered 'Notes' section may be placed before the References section. If using the endnotes package, use the command \theendnotes where the notes are to appear, instead of creating a \section.

4.12References

References cited in the text 4.12.1

References should be cited in the text in 'Chicago author-date' style, separated by semi-colons, e.g. (Green 2002; Harlow 1983; Wegener and Petty 1994) or '... see Smith (1985, 75)'. If there are two authors with the same surname, use the first initials with the surnames, e.g. (E. Johnson 2001; L. Johnson 1998). If there are three authors, list them all in every citation, e.g. (Kernis, Cornell, and Harlow 1993). For more than three authors, cite the first author's name followed by et al. For two or more sources by the same author(s) in the same year, use lower-case letters (a, b, c,...) with the year to order the entries in the Reference list and use these letters with the year in the in-text citations, e.g. (Green 1981a,b). Further details on this reference style can be found in the journal's Instructions for Authors.

Each bibliographical entry has a key, which is assigned by the author and used to refer to that entry in the text. In this document, the key ev94 in the citation form \citep{ev94} produces '(Evans 1994)', and the keys in the citation \citep{Eri1984,GloRib51,PeaEtAl76} produce '(Ericsson and Simon 1984; Glover, Smith, and Ribeiro 1951; Pierce et al. 1976)'. The appropriate citation style for different situations can be obtained, for example, by \citet{hk97} for 'Kern (1997)', \citet{Bar91, Mil93, Maz91} for 'Barlow (1991); Miller (1993); Mazzeo (1991)', or \citealt{Holl04} for 'Holland 2004'. Optional notes may be included at the beginning and end of a citation by the use of square brackets, e.g. \citep[see] [123] {Agu95} produces '(see Agutter 1995, 123)'. Citation of the year alone may be produced by \citeyear{cwm73}, i.e. '1973', or $\text{citeyearpar}\{\text{glov86}\}, \text{ i.e. } (1986)'.$

The list of references 4.12.2

References should be listed at the end of the main text in alphabetical order, then chronologically (earliest first), with full page ranges (where appropriate) and issue numbers (for journals paginated by issue). If a reference has more than ten named authors, list only the first seven, followed by 'et al.'. The following list shows some sample references prepared in the style of the journal.

References

Agutter, A. J. 1995. "The Linguistic Significance of Current British Slang." Unpublished doctoral dissertation, Edinburgh University, UK.

Barlow, D. H. 1991. "Diagnoses, Dimensions, and DSM-IV [Special issue]." Journal of Abnormal Psychology

Ericsson, K. Anders, and Herbert A. Simon. 1984. Protocol Analysis: Verbal Reports as Data. Cambridge, MA: MIT Press.

Evans, W. A. 1994. "Approaches to Intelligent Information Retrieval." Information Processing and Management 7 (2): 147–168.

Glover, Fred. 1986. "Hilbert Modular Forms and the Galois Representations Associated to Hilbert-Blumenthal Abelian Varieties." Ph.D. thesis, Harvard University, Cambridge, MA.

Glover, Fred, Raymond Smith, and C. C. Ribeiro, eds. 1951. Lessons of the British War Economy. Vol. 5. 2nd ed. Westport, CT: Greenwood Press.

"Guide to Citing Internet Sources." Accessed November Μ. 2004.http://www.bournemouth.ac.uk/library/using/guide_to_citing_internet_sourc.html.

Kern, Hudson. 1997. "The Resurgent Japanese Economy and a Japan-United States Free Trade Agreement." In 4th International Conference on the Restructuring of the Economic and Political System in Japan and Europe, edited by C. Lambert and G. Holst. Milan, Italy, 21–25 May 1996, 147–156. Singapore: World Scientific.

Mazzeo, J. 1991. Comparability of Computer and Paper-and-Pencil Scores (College Board Rep. No. 91). Princeton, NJ: Educational Testing Service.

Miller, M. E. 1993. The Interactive Tester (Version 4.0) [Computer software]. Westminster, CA: Psytek Services.

Misner, Charles W. 1973. "Efficient Algorithms for Layer Assignment Problems." In *Gravitation in a Collapsing Universe*, Vol. 5 of *Einstein's Legacy*, edited by Ignatius Gottlob. 2nd ed., 63–83. San Francisco, CA: Freeman.

Pierce, Ian F., Fred Glover, A. T. Ogilvy, and A. R. S. Clements. 1976. "A Model of Output, Employment, Wages and Prices in the UK." In *Computing Tools for Modeling, Optimization and Simulation: Interfaces in Computer Science and Operations Research*, edited by Manuel Laguna and José Luis Gonzáles-Velarde. 2nd ed., 1–24. Boston, MA: Cambridge University Press.

This was produced by typing:

\begin{thebibliography}{99}

\bibitem[Agutter(1995)]{Agu95}

Agutter, A.~J. 1995. 'The Linguistic Significance of Current {B}ritish Slang.' Unpublished doctoral dissertation, Edinburgh University, UK.

\bibitem[Barlow(1991)]{Bar91}

Barlow, D.~H. 1991. ''Diagnoses, Dimensions, and {DSM-IV} [Special issue].'' \emph{Journal of Abnormal Psychology} 100 (3).

\bibitem[Ericsson and Simon(1984)]{Eri1984}

Ericsson, K. Anders, and Herbert A. Simon. 1984. \emph{Protocol Analysis: Verbal Reports as Data}. Cambridge, MA: MIT Press.

\bibitem[Evans(1994)]{ev94}

Evans, W.~A. 1994. 'Approaches to Intelligent Information Retrieval.'' \emph{Information Processing and Management} 7 (2): 147--168.

\bibitem[Glover(1986)]{glov86}

Glover, Fred. 1986. \emph{Hilbert Modular Forms and the {G}alois Representations Associated to {H}ilbert--{B}lumenthal Abelian Varieties}. Ph.D. thesis, Harvard University, Cambridge, MA.

\bibitem[Glover, Smith, and Ribeiro(1951)]{GloRib51} Glover, Fred, Raymond Smith, and C.~C. Ribeiro, eds. 1951. \emph{Lessons of the {B}ritish War Economy}. Vol.~5. 2nd ed. Westport, CT: Greenwood Press.

\bibitem[Holland(2004)]{Holl04}

Holland, M. 2004. ''Guide to Citing Internet Sources.'' Accessed November 4, 2012.

http://www.bournemouth.ac.uk/library/using/guide_to_citing_internet_sourc.html.

\bibitem[Kern(1997)]{hk97}

Kern, Hudson. 1997. 'The Resurgent {J}apanese Economy and a {J}apan--{U}nited {S}tates Free Trade Agreement.' In \emph{4th International Conference on the Restructuring of the Economic and Political System in {J}apan and {E}urope}, edited by C.~Lambert

and G.~Holst. Milan, Italy, 21--25 May 1996, 147--156. Singapore: World Scientific.

\bibitem[Mazzeo(1991)]{Maz91}

Mazzeo, J. 1991. \emph{Comparability of Computer and Paper-and-Pencil Scores} (College Board Rep. No. 91). Princeton, NJ: Educational Testing Service.

\bibitem[Miller(1993)]{Mil93}

Miller, M.~E. 1993. \emph{The Interactive Tester (Version 4.0) [Computer software]}. Westminster, CA: Psytek Services.

\bibitem[Misner(1973)]{cwm73}

Misner, Charles~W. 1973. ''Efficient Algorithms for Layer Assignment Problems.'' In \emph{Gravitation in a Collapsing {U}niverse}, Vol.~5 of \emph{Einstein's Legacy}, edited by Ignatius Gottlob. 2nd ed., 63--83. San Francisco, CA: Freeman.

\bibitem[Pierce et~al.(1976)]{PeaEtAl76}

Pierce, Ian F., Fred Glover, A. T. Ogilvy, and A. R. S. Clements. 1976. ''A Model of Output, Employment, Wages and Prices in the {UK}.''
In \emph{Computing Tools for Modeling, Optimization and Simulation:
Interfaces in Computer Science and Operations Research}, edited by
Manuel Laguna and Jos\'{e} Luis Gonz\'{a}les-Velarde. 2nd ed., 1--24.
Boston, MA: Cambridge University Press.

\end{thebibliography}

Each entry takes the form:

\bibitem[authors' names(date of publication)]{key}
Bibliography entry

where 'authors' names' is the list of names to appear where the bibitem is cited in the text, 'key' is the tag to be used as an argument for the \cite{} commands in the text of the article and 'Bibliography entry' is the material that is to appear in the list of references, suitably formatted.

Instead of typing the bibliography by hand, you may prefer to create the list of references using a BibTeX database. Include the lines

\bibliographystyle{tPRS}
\bibliography{tPRSguide}

where the list of references should appear, where tPRS.bst is the name of the BibTEX style file for this journal and tPRSguide.bib is the database of bibliographic details for the references section included with the tPRS LATEX style guide package (to be replaced with the name of your own BibTEX database). The LATEX source file of your paper will extract from your .bib file only those references that are cited in that paper and list them in the References section of it.

Please include a copy of your .bib file and/or the final generated .bbl file among your source files if your .tex file does not contain a reference list in a thebibliography environment.

4.13 Appendices

Any appendices should be placed after the list of references, beginning with the command \appendices followed by the command \section for each appendix title, e.g.

\appendices

\section{This is the title of the first appendix}
\section{This is the title of the second appendix}

produces:

Appendix A. This is the title of the first appendix

Appendix B. This is the title of the second appendix

Subsections, equations, figures, tables, etc. within appendices will then be automatically numbered as appropriate.

5. Example of a section heading including SMALL CAPS, italic, and bold Greek such as κ

The following code shows how to achieve this section heading:

```
\section{Example of a section heading including
{\fontencoding{T1}\scshape{small caps}}, \textit{italic},
and bold Greek such as ${\bm\kappa}$}\label{headings}
```

6. tPRS journal style

The notes given here relate to common style errors found in manuscripts, but are *not* intended to be exhaustive.

6.1 Hyphens, en rules, em rules and minus signs

- (i) Hyphens (one dash in T_EX/L⁴T_EX). *tPRS* uses hyphens for compound adjectives (e.g. low-density gas, least-squares fit, two-component model) but not for complex units or ranges, which could become cumbersome (e.g. 15 km s⁻¹ feature, 100–200 μm observations).
- (ii) en rules (two dashes in TEX/LATEX). These are used (a) to denote a range (e.g. 1.6–2.2 μm);
 (b) to denote the joining of two words of equal standing (e.g. Kolmogorov–Smirnov test, Herbig–Haro object);
 (c) with spaces, as an alternative to parentheses (e.g. 'the results assuming no temperature gradient are indicative of . . . ').
- (iii) The em rule (three dashes in T_FX/L^AT_FX) has no specified use in tPRS.
- (iv) The minus sign is produced automatically in math mode by the use of a single dash, e.g.

$$y_i \in \{-1, 1\} \quad \forall i \in V, \tag{4}$$

where $|-V| = A^2 + B^2$ is produced by

 $\begin{equation} $y_{i} \in {-1, 1 } \quad i \in V, end{equation} $ \oindent where <math>|-V|=A^2+B^2$

6.2 References

It is important to use the correct reference style, details of which can be found in Section 4.12.

6.3Maths fonts

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Scalar variables should be mediumface italic (e.g. s for speed); vectors should be bold italic (e.g. vfor velocity); matrices should be bold roman (upright) (e.g. A), and tensors should be bold upright sans serif (e.g. L). Differential d, partial differential ϑ , complex i, exponential e, superscript T for 'transpose', sin, cos, tan, log, etc., should all be roman. Openface, or 'blackboard', fonts can be used, for example, for the integers \mathbb{Z} and the reals \mathbb{R} . Sub/superscripts that are physical variables should be italic, while those that are labels should be roman (e.g. C_p , T_{eff}).

7. Troubleshooting

Authors may from time to time encounter problems with the preparation of a paper using LATEX. The appropriate action to take will depend on the nature of the problem – the following is intended as a guide.

- (i) If the problem is with LATEX itself, rather than with the actual macros, please refer to an appropriate handbook for initial advice. If the solution cannot be found, or if you suspect that the problem lies with the macros, then please contact Taylor & Francis for assistance (latex.helpdesk@tandf.co.uk).
- (ii) Problems with page make-up (e.g. large spaces between paragraphs, above headings, or below figures; figures/tables appearing out of order): please do not attempt to remedy these using 'hard' page make-up commands – the typesetter will deal with such problems. (You may, if you wish, draw attention to particular problems when submitting the final version of your paper.)
- (iii) If a required font is not available on your system, allow T_FX to substitute the font and specify which font is required in a covering letter accompanying your file(s).

8. Fixes for coding problems

This guide has been designed to minimize the need for user-defined macros to create special symbols. Authors are urged, wherever possible, to use the following coding rather than to create their own. This will minimize the danger of author-defined macros being inadvertently 'overridden' when the paper is typeset. In cases where it is necessary to create your own macros, these should be displayed in the preamble of your .tex file before \begin{document}.

(i) Fonts in paper titles and section headings. The following are examples of styles that sometimes prove difficult to code.

Generalized Flory theory at $\delta > 50^{\circ}$

```
is produced by
\title{Generalized Flory theory at
        ${\bm\delta > {\bf 50}^\circ}$}
```

Ion–ion correlations in H II regions

```
is produced by
\section{Ion--ion correlations in H\,{\sc ii} regions}
```

(ii) en rules, em rules, hyphens and minus signs (see Section 6.1 for correct usage). To create the correct symbols in the sentence

The high-resolution observations were made along a line at an angle of -15° (East from North) from the axis of the jet – which runs North–South

you would use the following code:

The high-resolution observations were made along a line at an angle of \$-15^\circ\$ (East from North) from the axis of the jet -- which runs North--South

- (iii) Fonts in superscripts and subscripts. Subscripts and superscripts will automatically come out in the correct font and size in a math environment (e.g. enclosed by '\$' delimiters in running text or within $\[\ldots\]$ or the 'equation' environment for displayed equations). You can create the output k_x by typing ${\rm k_x}\$. If the subscripts or superscripts need to be other than italic, they should be coded individually see (vi) below.
- (iv) Calligraphic letters (\mathcal{UPPER} \mathcal{CASE} \mathcal{ONLY}). Normal calligraphic can be produced with \mathcal as usual (in math mode).
- (v) Automatic scaling of brackets. The codes \left and \right should be used to scale brackets automatically to fit the equation being set. For example, to get

$$v = x \left(\frac{N+2}{N}\right)$$

use the code

(vi) Roman font in equations. It is often necessary to make some symbols roman in an equation (e.g. units, non-variable subscripts). For example, to get

$$\sigma \simeq (r/13 \ h^{-1} \ {\rm Mpc})^{-0.9}, \qquad \omega = \frac{N - N_{\rm s}}{N_{\rm R}}$$

use the code

\[\sigma \simeq (r/13~h^{-1}~{\rm Mpc})^{-0.9}, \qquad \omega = \frac{N-N_{\rm s}}{N_{\rm R}} \]

The SIunits package of macros for typesetting units is also compatible with the tPRS class file.

9. Obtaining the tPRS2e class file

9.1 Via the Taylor & Francis website

This Guide for Authors and the tPRS2e class file may be obtained via the Instructions for Authors on the Taylor & Francis homepage for the journal.

Please note that the class file calls up the following open-source LATEX packages, which will, for convenience, unpack with the downloaded Guide for Authors and class file: amsbsy.sty; ams-

fonts.sty; amsmath.sty; amssymb.sty; epsfig.sty; graphicx.sty; natbib.sty; rotating.sty. The Guide for Authors calls for subfigure.sty, which is also supplied for convenience.

9.2 Via e-mail

This Guide for Authors, the class file and the associated open-source LATEX packages are also available by e-mail. Requests should be addressed to latex.helpdesk@tandf.co.uk clearly stating for which journal you require the Guide for Authors and/or class file.