To appear in Computer Methods in Biomechanics and Biomedical Engineering Vol. 00, No. 00, Month 20XX, 1-

## **GUIDE**

# Computer Methods in LAZY DOG Biomechanics and Biomedical Engineering

LATEX style guide for authors (Style 4 + CSE reference style)

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(v4.0 released February 2014)

This guide is for authors who are preparing papers for the Taylor & Francis journal Computer Methods in Biomechanics and Biomedical Engineering (gCMB) using the LATEX document preparation system and the class file gCMB2e.cls, which is available via the journal's homepage on the Taylor & Francis website. Authors planning to submit papers in LATEX are advised to use gCMB2e.cls as early as possible in the creation of their files.

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

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## 1. Introduction

In order to assist authors in the process of preparing a manuscript for Computer Methods in Biomechanics and Biomedical Engineering (gCMB), the journal's layout style has been implemented as a LATEX  $2_{\varepsilon}$  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 LATEX  $2_{\mathcal{E}}$  interface are explained in this guide. The guide alone is not intended as a substitute for an appropriate LATEX  $2_{\mathcal{E}}$  manual.

The gCMBguide.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{equation}, \begin{enumerate}).

Please note that the index following the abstract in this guide is provided for information only. An index is not required in submitted papers.

# 1.1 The gCMB document class

The gCMB class file preserves the standard LATEX  $2\varepsilon$  interface such that any document that can be produced using article.cls can also be produced using the gCMB 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, the page make-up would inevitably alter with the change of font. Moreover, the class file produces single-column format, which is preferred for peer review and will be converted to two-column format by the typesetter. This also reduces formatting problems during preparation of papers by authors due to long lines and equations spanning more than one column. Line endings would change anyway during preparation of proofs from two-column format manuscripts because typesetters' character sets differ slightly in size from those available on most PCs and laptops. Please therefore ignore details such as slightly long lines of text, page stretching, or figures falling out of synchronization with their citations in the text: these details will be dealt with by the typesetter. Similarly, it is unnecessary to spend time addressing warnings in the log file – if your .tex file compiles to produce a PDF file that correctly shows 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 \( \mathbb{L}T\_{EX} \) 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/gcmbauth.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' LATEX  $2_{\varepsilon}$  should be used in preference to proprietary systems such as TCILaTeX or Scientific WorkPlace; similarly, class files such as REVTeX4 that produce a document in the style of a different publisher and journal should not be used for preference.

Authors who wish to incorporate Encapsulated PostScript artwork directly in their articles can do so by using Tomas Rokicki's EPSF macros (which are supplied with the DVIPS PostScript driver). See Section 3.4, which also demonstrates how to treat landscape pages. Please remember to supply any additional figure macros you use with your article in the preamble before \begin{document}. Authors should not attempt to use implementation-specific \specials directly.

August 14, 2015

Ensure that any author-defined macros are gathered together in the source file, just before the \begin{document} command.

Please note that if serious problems are encountered with the coding of a paper (missing authordefined macros, for example), it may prove necessary to divert the paper to conventional typesetting, i.e. it will be re-keyed.

# 2. Using the gCMB class file

If the file gCMB2e.cls is not already in the appropriate system directory for LATEX  $2\varepsilon$  files, either arrange for it to be put there, or copy it to your working folder. In order to use the gCMB document class, replace the command \documentclass{article} at the beginning of your document with the command \documentclass{gCMB2e}.

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

- 10pt, 11pt, 12pt unavailable;
- oneside, twoside not necessary, oneside is the default;
- leqno and titlepage should not be used;
- twocolumn should not be used (see Section 1.1);
- 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 Footnotes to article titles and authors' names

On the title page, the **\thanks** control sequence may be used to produce a footnote to either the title or authors' names. Footnote symbols for this purpose should be used in the order:  $\dagger$  (coded as \dagger),  $\ddagger$  (\\dagger\\dagger),  $\S$  (\\S),  $\P$  (\\P),  $\|$  (\\I),  $\dagger$  (\\dagger\\dagger),  $\sharp$  (\\dagger\\dagger),  $\|$  (\\P\\P),  $\|$  (\\I).

Any \footnotes to the main text will automatically be assigned the superscript symbols 1, 2, 3, etc. by the class file.<sup>1</sup>

The title, author(s) and affiliation(s) should be followed by the \maketitle command. If preparing an anonymized version for peer review, \maketitle may follow directly after the title in order to shield the authors' identities from the reviewers.

# 3.2 Abstracts

At the beginning of your article, the title should be generated in the usual way using the \maketitle command. Immediately following the title you should include an abstract. The abstract should be enclosed within an abstract environment. For example, the titles for this guide were produced by the following source code:

\title{{\itshape Computer Methods in Biomechanics and Biomedical Engineering} \LaTeX\ style guide for authors (Style 4 + CSE reference style)}

\author{A.N. Author\$^{\rm a}\$\$^{\ast}\$\thanks{\$^\ast\$Corresponding author. Email: latex.helpdesk@tandf.co.uk \vspace{6pt}} and I.T.

<sup>&</sup>lt;sup>1</sup>If 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.

Consultant\$^{\rm b}\$\\vspace{6pt} \$^{a}\${\em{Taylor \& Francis,}
4 Park Square, Milton Park, Abingdon, UK}}; \$^{b}\${\em{Institut f\"{u}r Informatik, Albert-Ludwigs-Universit\"{a}t, Freiburg,
Germany}}\\received{v4.0 released February 2014} }

\maketitle

## \begin{abstract}

This guide is for authors who are preparing papers for the Taylor \& Francis journal {\em Computer Methods in Biomechanics and Biomedical Engineering} ({\it gCMB}\,) using the \LaTeX\ document preparation system and the class file {\tt gCMB2e.cls}, which is available via the journal's homepage on the Taylor \& Francis website. Authors planning to submit papers in \LaTeX\ are advised to use {\tt gCMB2e.cls} as early as possible in the creation of their files. \end{abstract}

#### 3.3 Lists

The gCMB 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.

Unnumbered lists are also provided using the enumerate environment. For example,

First unnumbered indented item without label.

Second unnumbered item.

Third unnumbered item.

was produced by:

## \begin{enumerate}

\item[] First unnumbered indented item without label.

\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}
```

## 3.4 Landscape pages

If a table or illustration is too wide to fit the standard measure, it must be turned, with its caption, through  $90^{\circ}$  anticlockwise. Landscape illustrations and/or tables can be produced using the **rotating** package, which is called by the gCMB class file. The following commands can be used to produce such pages.

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

# 4. Some guidelines for using standard features

The following notes are intended to help you achieve the best effects with the gCMB2e class file.

## 4.1 Sections

LATEX  $2\varepsilon$  provides five levels of section heading, all of which are defined in the gCMB2e class file:

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

Numbering is automatically generated for section, subsection, subsubsection and paragraph headings. If you need additional text styles in the headings, see the examples in Section ??.

```
(a) (b)
An A
ex-slightly
amshorter
ple sub-
of caption.
an
in-
di-
vid-
ual
fig-
ure
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, otherwise centred under the figure.

gCMBguide

# 4.2 Illustrations (figures)

The gCMB class file will cope with most positioning of your illustrations and you should not normally need to use the optional placement specifiers of the figure environment. See 'Instructions for Authors' in the journal's homepage 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 IATEX may include these at the appropriate locations in their PDF file). The original 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.

Figure captions should appear below the figure itself, therefore the **\caption** command should appear after the figure. For example, Figure ?? with caption and sub-captions is produced using the following commands:

```
\begin{figure}
\begin{center}
\begin{minipage}{130mm}
\subfigure[An example of an individual figure sub-caption.]{
\resizebox*{6cm}{!}{\includegraphics{senu_gr1.eps}}}\hspace{5pt}
\subfigure[A slightly shorter sub-caption.]{
\resizebox*{6cm}{!}{\includegraphics{senu_gr2.eps}}}
\caption{\label{fig2} 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, otherwise centred under the figure.}
\label{sample-figure}
\end{minipage}
\end{center}
\end{figure}
```

The control sequences \subfigure{} and \includegraphics{} require subfigure.sty and graphicx.sty. The former is called in the preamble of the gCMBguide.tex file (in order to allow your choice of alternative if preferred) and the latter by the gCMB2e class file; both are included with the LATEX style guide package for this journal for convenience.

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

Table 1. Radio-band beaming model parameters for FSRQs and BL Lacs.

Classa	$\gamma_1$	${\gamma_2}^{ m b}$	$\langle \gamma \rangle$	G	f	$\theta_c$
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°

<sup>&</sup>lt;sup>a</sup>This footnote shows what footnote symbols to use.

## 4.3 Tables

The gCMB 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 table caption appears above the body of the table in gCMB style, therefore the \table command should appear before the body of the table.

The tabular environment can be used as illustrated here to produce tables with 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.

Commands to redefine quantities such as \arraystretch should be omitted. For example, Table ?? is produced using the following commands. Note that \rm will produce a roman character in math mode. There are also \bf and \it, which produce bold face and text italic in math mode.

```
\begin{table}
\tbl{Radio-band beaming model parameters for {FSRQs and BL Lacs.}}
{\begin{tabular}{@{}lcccccc}\toprule
  Class$^{\rm a}$ & $\gamma _1$ & $\gamma _2$$^{\rm 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{$^{\rm a}$This footnote shows what footnote symbols to use.}
\tabnote{$^{\rm b}$This footnote shows the text turning over when
a long footnote is added.}
\label{symbols}
\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 qCMB class file.

# 4.4 Theorem-like environments

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:

 $<sup>^{\</sup>mathrm{b}}\mathrm{This}$  footnote shows the text turning over when a long footnote is added.

\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.) in your document 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 will be changed if necessary to match the style of the journal by the typesetter during preparation of your proofs.

# 4.5 Typesetting mathematics

## 4.5.1 Displayed mathematics

The gCMB class file will set displayed mathematics centred on the measure without equation numbers, provided that you use the IATEX  $2\varepsilon$  standard control sequences open (\[]) and close (\]) square brackets 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}})quad
 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 control sequences

\begin{subequations} \label{subeqnexample}
\begin{equation}

```
\varepsilon \rho w_{tt}(s,t)
=
        N[w_{s}(s,t),w_{st}(s,t)]_{s},
        \label{subeqnpart}
\end{equation}
\begin{equation}
        w_{tt}(1,t)+N[w_{s}(1,t),w_{st}(1,t)] = 0,
\end{equation}
\end{subequations}
```

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

# 4.5.2 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
```

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

# 4.5.3 Bold Greek

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

# 4.5.4 Upright lowercase Greek characters and the upright partial derivative sign

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

# ${\bf 4.6} \quad Acknowledgements$

This unnumbered section, e.g. \section\*{Acknowledgement(s)}, should be used for thanks, etc. and placed before any Notes or References sections.

# 4.7 Funding

This unnumbered section, e.g. \section\*{Funding}, should be used for grant details, etc. and placed before any Notes or References sections.

#### 4.8 Notes

This unnumbered section, e.g. \section\*{Note(s)}, may be placed before the References section.

## 4.9 Supplemental material

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

# 4.10 References

# 4.10.1 References cited in the text

References should be cited in the text in CSE name-year style, e.g. (Green 2002; Smith 2012), or '... see Smith (2012, p. 1)'. When several in-text references occur at the same point, distinguish works by the same author published in different years by placing the years after the author name in chronological sequence. For two or more works published by the same author in the same year, add an alphabetic designator to the year in both the in-text reference and the end reference. When the authors of two works published in the same year have identical surnames, include their initials in the in-text reference and separate the two in-text references by a semicolon and a space. If a work has two authors, give both names in the in-text reference. If a reference has three or more authors, give only the first author's name followed by 'et al.' and the year of publication. If the first author's names and the years of publication are identical for several references, include enough co-author names to eliminate ambiguity, e.g. '(Martinez, Fuentes, et al. 1990; Martinez, Fuentes, Ortiz, et al. 1990)'. 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 \cite{ev94} produces '?', and the keys {ber73,ed84,glov86} in the citation form \citep{ber73,ed84,glov86} produce '(???)'. The appropriate citation style for different situations can be obtained, for example, by \citet{Shak1978,Fell1981,Eri1984} for '???', or \citealt{Holl04} for '?'. Optional notes may be included at the beginning and end of a citation by the use of square brackets, e.g. \citep[see][p. 51]{Scho02} produces '(see ?, p. 51)'. Citation of the year alone may be produced by \citeyear{Marg2003}, i.e. '?', \citeauthor{hk97}, i.e. '?' or \citeyearpar{Lee2003}, i.e. '(?)'.

# 4.10.2 The list of references

References should be listed at the end of the main text in alphabetical order by author, then chronologically. The following list shows some references prepared in the style of the journal:

# References

Berk KN. 1973. Comparing subset regression procedures. Technometrics. 20:1–6.

Edwards DMF, McDonald IR. 1984. Positive bases in numerical optimization. Comput Optim Appl. 21:169–175.

Ericsson KA, Simon HA. 1984. Protocol analysis: verbal reports as data. Cambridge (MA): MIT Press.

Evans WA. 1994. Approaches to intelligent information retrieval. Inf Process Manag. 7:147–168.

Feller BA. 1981. Health characteristics of persons with chronic activity limitation, United States, 1979. Hyattsville (MD): National Center for Health Statistics (US). Report No.: VHS-SER10/137. Available from: NTIS, Springfield, VA; PB88-228622.

Glover F. 1986. Hilbert modular forms and the Galois representations associated to Hilbert–Blumenthal abelian varieties [dissertation]. Cambridge (MA): Harvard University.

Holland M. 2004. Guide to citing internet sources; [cited 2012 Nov 4]. Available from: http://www.bournemouth.ac.uk/library/using/guide\_to\_citing\_internet\_sourc.html.

Kern H. 1997. The resurgent Japanese economy and a Japan–United States free trade agreement. In: Lambert C, Holst G, editors. 4th International Conference on the Restructuring of the Economic and Political System in Japan and Europe; 1996 May 21–25; Milan, Italy. Singapore: World Scientific; p. 147–156.

Lee DJ, Bates D, Dromey C, Xu X, Antani S. 2003. An imaging system correlating lip shapes with tongue contact patterns for speech pathology research. In: Krol M, Mitra S, Lee DJ, editors. CMBS 2003. Proceedings of the 16th IEEE Symposium on Computer-Based Medical Systems; 2003 Jun 26–27; New York. Los Alamitos (CA): IEEE Computer Society; p. 307–313.

Margenstern M, Zhang J, Castillo O, Doberkat EE, editors. 2003. SCI 2003. Proceedings of the 7th World Multiconference on Systemics, Cybernetics and Informatics; 2003 Jul 27–30; Orlando, FL. Orlando (FL): International Institute of Informatics and Systematics.

Schott J, Priest J. 2002. Leading antenatal classes: a practical guide. 2nd ed. Boston (MA): Books for Midwives.

Shakelford RT. 1978. Surgery of the alimentary tract. Philadelphia (PA): W.B. Saunders. Chapter 2, Esophagoscopy; p. 29–40.

This was produced by typing:

\begin{thebibliography}{12}

\bibitem[Berk(1973)]{ber73}

Berk~KN. 1973. Comparing subset regression procedures. Technometrics. 20:1--6.

\bibitem[Edwards and McDonald(1984)]{ed84}

Edwards~DMF, McDonald~IR. 1984. Positive bases in numerical optimization. Comput Optim Appl. 21:169--175.

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

Ericsson~KA, Simon~HA. 1984. Protocol analysis: verbal reports as data. Cambridge (MA): MIT Press.

\bibitem[Evans(1994)]{ev94}

Evans~WA. 1994. Approaches to intelligent information retrieval. Inf Process Manag. 7:147--168.

\bibitem[Feller(1981)]{Fell1981}

Feller BA. 1981. Health characteristics of persons with chronic activity limitation, {U}nited {S}tates, 1979. Hyattsville (MD): National Center for Health Statistics ({US}). Report No.: VHS-SER10/137. Available from: NTIS, Springfield, VA; PB88-228622.

\bibitem[Glover(1986)]{glov86}

Glover  $^{\sim}$  F. 1986. Hilbert modular forms and the {G}alois representations associated to {H}ilbert--{B}lumenthal abelian varieties [dissertation].

Cambridge (MA): Harvard University.

\bibitem[Holland(2004)]{Holl04}

Holland M. 2004. Guide to citing internet sources; [cited 2012 Nov 4].

Available from

http://www.bournemouth.ac.uk/library/using/guide\\_to\\_citing\\_internet\\_sourc.html.

\bibitem[Kern(1997)]{hk97}

Kern~H. 1997. The resurgent {J}apanese economy and a {J}apan--{U}nited
{S}tates free trade agreement. In: Lambert~C, Holst~G, editors.
4th International Conference on the Restructuring of the Economic
and Political System in Japan and Europe; 1996 May 21--25; Milan, Italy.
Singapore: World Scientific; p. 147--156.

\bibitem[Lee et~al.(2003)]{Lee2003}

Lee DJ, Bates D, Dromey C, Xu X, Antani S. 2003. An imaging system correlating lip shapes with tongue contact patterns for speech pathology research. In: Krol M, Mitra S, Lee DJ, editors. CMBS 2003. Proceedings of the 16th IEEE Symposium on Computer-Based Medical Systems; 2003 Jun 26--27; New York. Los Alamitos (CA): IEEE Computer Society; p. 307--313.

\bibitem[Margenstern et~al.(2003)]{Marg2003}

Margenstern M, Zhang J, Castillo O, Doberkat EE, editors. 2003. SCI 2003. Proceedings of the 7th World Multiconference on Systemics, Cybernetics and Informatics; 2003 Jul 27--30; Orlando, FL. Orlando (FL): International Institute of Informatics and Systematics.

\bibitem[Schott and Priest(2002)]{Scho02}

Schott J, Priest J. 2002. Leading antenatal classes: a practical guide. 2nd ed. Boston (MA): Books for Midwives.

\bibitem[Shakelford(1978)]{Shak1978}

Shakelford RT. 1978. Surgery of the alimentary tract. Philadelphia (PA): W.B. Saunders. Chapter 2, Esophagoscopy; p. 29--40.

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, and 'key' is the tag that is to be used as an argument for the \cite{} commands in the text of the article. The Bibliography entry should be 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{gCMB}
\bibliography{gCMBguide}

where the list of references should appear, where gCMB.bst is the BibTEX style file for this journal and gCMBguide.bib is the database of bibliographic details for the references section included with the gCMB LATEX style guide package (to be replaced with the name of your own BibTEX database).

Table 2. gCMB macros.

\thanks{title-page footnote to article title or author} e.g. 'Corresponding author. E-mail: A.N.Author@uiowa.edu' for abstract on titlepage \bm{math and symbols} bold italic math and symbols \bi{text} bold italic text \sf{text or upright symbols in math mode} sans serif text or upright symbols in math mode

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.

Note that BibTeX itself may not formulate every in-text reference exactly as required by the journal's reference style, because this is too complicated a process. A solution would involve waiting until your text is otherwise in its final form and then running BibTeX one last time to generate a .bbl file whose contents can be pasted into a thebibliography environment in your .tex file, in place of the call for the bibliography style file and your BibTeX database. There the bibliography can be edited manually in accordance with the style. When LATeX is run again on the edited bibliography, it will output the references just as instructed. Alternatively this process may be left to the typesetter to complete, so long as all the necessary information is present in the list of references.

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

# 4.11 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.

# 4.12 gCMB macros

Table ?? gives a list of macros for use with gCMB. The list displays each macro's code and a description/demonstration of its function.

# 5. Example of a section heading including SMALL CAPS, *italic*, and bold Greek such as $\kappa$

The following code shows how to achieve this section head:

 $<sup>^2</sup>$ BibTeX includes an additional 'long' list of authors' names (after the date of publication) in some of the bibitems in the .bbl file, which it uses to build the list of references; you should not need to edit this.

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

# $6. \quad gCMB$ journal style

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

# 6.1 Hyphens, n-rules, m-rules and minus signs

- (i) Hyphens (one dash in T<sub>E</sub>X/L<sup>A</sup>T<sub>E</sub>X). *gCMB* 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<sup>-1</sup> feature, 100–200 μm observations).
- (ii) n-rules (two dashes in T<sub>E</sub>X/I<sup>Δ</sup>T<sub>E</sub>X). 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 m-rule (three dashes in T<sub>E</sub>X/L<sup>A</sup>T<sub>E</sub>X) has no specified use in gCMB.
- (iv) The minus sign (one dash in TEX/LATEX) is produced automatically in math mode by 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} \\ \noindent where $|-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 ?? above.

## 6.3 Maths fonts

Scalar variables should be mediumface italic (e.g. s for speed); vectors should be bold italic (e.g. v for 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  $\partial$ , 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.  $C_p$ ,  $T_{\text{eff}}$ ). Displayed equations should have end-of-line punctuation appropriate to the running text sentence of which they form a part.

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# 7. Troubleshooting

Authors may from time to time encounter problems with the preparation of their papers in IATEX. The appropriate action to take will depend on the nature of the problem – the following is intended to act 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, and you suspect that the problem lies with the macros, then please contact Taylor & Francis (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 at your site, allow TeX to substitute the font and specify which font you require in the 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 accidentally 'overridden' when the paper is typeset (see Section ??, 'Typesetting mathematics'). In cases where it is essential to create your own macros, these should be displayed in the preamble of the source file before \begin{document}.

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

# Paper titles:

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

is produced by

# Ion-ion correlations in H II regions

is produced by

\title{Ion--ion correlations in H\,{\sc ii} regions}

(ii) n-rules, m-rules, hyphens and minus signs (see Section ?? for correct usage). To create the correct symbols in the sentence

The high-resolution observations were made along a line at an angle of  $-15^{\circ}$  (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 (uppercase only). Normal calligraphic can be produced with \cal 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

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(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 gCMB class file.

# 9. Obtaining the gCMB2e class file

# 9.1 Via the Taylor & Francis website

This Guide for Authors and the gCMB2e.cls 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; amsfonts.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.