INSTRUCTIONS FOR TYPESETTING MANUSCRIPT USING LaTeX

First Author[*] and Second Author[†,‡]

[*]*University Department, University Name, Address*
City, State ZIP/Zone, Country,
fauthor_id@domain_name

[‡]*Group, Company, Address*
City, State ZIP/Zone, Country
sauthor_id@domain_name

ABSTRACT

The abstract should summarize the context, content and conclusions of the paper. It should not contain any references or displayed equations. Typeset the abstract in 8 pt Times Roman with baselineskip of 10 pt, making an indentation of .65in on the left and right margins.

Keywords: A list of 3–5 keywords are to be supplied.

THE MAIN TEXT

Contributions are to be in English. Authors are encouraged to have their contribution checked for grammar. American spelling should be used. Abbreviations are allowed but should be spelt out in full when first used. Integers ten and below are to be spelt out. Italicize foreign language phrases (e.g., Latin, French).

For the title, try not to use more than three lines. Typeset the title in 14 pt Times Roman, uppercase and boldface. Typeset author names in 12 pt Times Roman. Use the footnote to indicate the present or permanent address of the author. Affiliations are typeset in 11 pt Times italics. State completely without abbreviations the affiliation and mailing address, including country.

The text is to be typeset in 10 pt Times Roman, single-spaced with baselineskip of 13 pt. Text area is 6.9 in across and 9.3 in deep (including running title). Final pagination and insertion of running titles will be done by the publisher.

SECTION HEADINGS

Section headings should be typeset in boldface, with all the letters capitalized.

Subheadings

Subheadings should be typeset in boldface, with the first letter of the first word capitalized.

Sub-subheadings

Typeset in italics and capitalize the first letter of the first word only.

Numbering and spacing

Sections, subsections and sub-subsections are all unnumbered. Unnumbered sections can be obtained by using `\section*`, `\subsection*` and `\subsubsection*` commands. Use double spacing before major and subheadings, and single spacing after sub-subheadings.

LISTS OF ITEMS

Lists are broadly classified into four major categories that can randomly be used as desired by the author:

(a) Numbered list.

[‡]Corresponding author: Prof. Second Author, University Department, University Name, Address, City, State ZIP/Zone, Country. Tel.: +000-0-0000000, ext 000; Fax: +000-0-0000000; E-mail: sauthor_id@domain_name.

(b) Lettered list.
(c) Unnumbered list.
(d) Bulleted list.

Numbered and lettered list

The `\begin{arabiclist}[]` command is used for the arabic number list (arabic numbers appearing within parenthesis), e.g., (1), (2), etc.

The `\begin{romanlist}[]` command is used for the roman number list (roman numbers appearing within parenthesis), e.g., (i), (ii), etc.

The `\begin{Romanlist}[]` command is used for the cap roman number list (cap roman numbers appearing within parenthesis), e.g., (I), (II), etc.

The `\begin{alphlist}[]` command is used for the alphabetic list (alphabets appearing within parenthesis), e.g., (a), (b), etc.

The `\begin{Alphlist}[]` command is used for the cap alphabetic list (cap alphabets appearing within parenthesis), e.g., (A), (B), etc.

Note: For all the above mentioned lists (with the exception of alphabetic list), it is obligatory to enter the last entry's number in the list within the square bracket, to enable unit alignment.

Bulleted and unnumbered list

The `\begin{itemlist}` command is used for the bulleted list.

The `\begin{unnumlist}` command is used for creating the unnumbered list with the turnovers hangindent by 1 pica.

Lists may be laid out with each item marked by a dot:

- item one
- item two.

Items may also be numbered with lowercase Arabic numerals:

(1) item one
(2) item two

   (i) lists within lists can be numbered with lower-case Roman letters
   (ii) second item.

FOOTNOTES

Footnotes should be numbered sequentially in superscript lowercase Roman letters.[a]

MATHEMATICAL FORMULAE

Inline: For in-line formulae use `\( ... \)` or `$ ... $`. Avoid built-up constructions, for example fractions and matrices, in in-line formulae. Fractions in inline can be typed with a solidus, e.g., `x+y/z=0`.

Display: Displayed equations should be numbered consecutively in the paper, with the number set flush right and enclosed in parentheses. For numbered display formulae, use the displaymath environment:

   `\begin{equation} ... \end{equation}`.

For unnumbered display formulae, use `\[ ... \]`. For numbered displayed, one-line formulae always use the equation environment. Do not use `$$ ... $$`. For example, the input for

$$\mu(n,t) = \frac{\sum\limits_{i=1}^{\infty} 1(d_i < t, N(d_i) = n)}{\int\limits_{\sigma=0}^{t} 1(N(\sigma) = n)d\sigma} \tag{1}$$

is:

```
\begin{equation}
\mu(n, t) = \frac{\sum\limits^\infty_{i=1}1
(d_i < t, N(d_i) = n)}
{\int\limits^t_{\sigma=0}1
(N(\sigma)=n)d\sigma}
\label{eq1}
\end{equation}
```

For displayed multi-line formulae, use the `eqnarray` environment. For example,

```
\begin{eqnarray}
\zeta\mapsto\hat{\zeta}&=&a\zeta+b\eta\,,\\
\eta\mapsto\hat{\eta}&=&c\zeta+d\eta\,.
\label{eq2n3}
\end{eqnarray}
```

produces:

$$\zeta \mapsto \hat{\zeta} = a\zeta + b\eta\,, \tag{2}$$
$$\eta \mapsto \hat{\eta} = c\zeta + d\eta\,. \tag{3}$$

LaTeX does not break long equations to make them fit within the margins as it does with normal text. It

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[a]Footnotes should be typeset in 9 pt Times Roman at the bottom of the page.

is therefore up to you to format the equation appropriately (if they overrun the margin.) This typically requires some creative use of an eqnarray to get elements shifted to a new line and to align nicely, e.g.,

$$(1 + x)^n = 1 + nx + \frac{n\,(n-1)}{2!}x^2$$
$$+ \frac{n\,(n-1)\,(n-2)}{3!}x^3$$
$$+ \frac{n\,(n-1)\,(n-2)\,(n-3)}{4!}x^4$$
$$+ \ldots n\text{th}. \tag{4}$$

Superscripts and subscripts that are words or abbreviations, as in π_{low}, should be typed as roman letters; this is done as \(\pi_{\mathrm{low}} \) instead of π_{low} done with \(\pi_{low} \)

For geometric functions, e.g., exp, sin, cos, tan, etc., please use the macros \sin, \cos, \tan. These macros give proper spacing in mathematical formulae.

It is also possible to use the $\mathcal{AMS}$-LaTeX package, which can be obtained from the $\mathcal{AMS}$ and various TeX archives.

Equations should be referred to in abbreviated form, e.g., "Eq. (1)" or "(2)". In multiple-line equations, the number should be given on the last line.

Displayed equations are to be centered on the page width. Standard English letters like x are to appear as x (italicized) in the text if they are used as mathematical symbols. Punctuation marks are used at the end of equations as if they appeared directly in the text.

THEOREMS AND DEFINITIONS

LaTeX provides \newtheorem to create new theorem environments. The WSPC document styles contain a set of pre-defined environments for theorems, definitions, proofs, remarks, etc., e.g.,

```
\begin{theorem}[Longo, 1998]
For a given $Q$-system...
\[
N = \{x \in N; T x = \gamma (x) T, T x^* =
\gamma (x^*) T\}\,,
\]
and $E_\Xi (\cdot) = T^* \gamma (\cdot) T$
gives a conditional expectation onto $N$
\end{theorem}
```

generates

Theorem 1 (Longo, 1998). *For a given Q-system...*

$$N = \{x \in N; Tx = \gamma(x)T, Tx^* = \gamma(x^*)T\}\,,$$

and $E_\Xi(\cdot) = T^*\gamma(\cdot)T$ gives a conditional expectation onto N

and

```
\begin{theorem}
We have $\# H^2 (M \supset N) < \infty$ ...
\end{theorem}
```

produces

Theorem 2. *We have $\#H^2(M \supset N) < \infty$ for an inclusion $M \supset N$ of factors of finite index.*

To add a new theorem-type environments to an article, use

```
\newtheorem{example}{Example}[section]
```

```
\let\Examplefont\upshape
\def\Exampleheadfont{\bfseries}
```

FLOATS

Tables

Put tables and figures in text using the table and figure environments, and position them near the first reference of the table or figure in the text. Please avoid long captions in figures and tables.

Input:

```
\begin{tablehere}
\tbl{... table caption ...}
{\begin{tabular}{@{}lcccr@{}}
\toprule
ID & $m$ & $R^2$ & $x_2$ & Times (s)\\
\colrule
11 & 100 & 3135 & 1138 & $<98$\\
...
15 & 100 & 3135 & 1138 & $<102$\\
\botrule
\end{tabular}}
\label{tbl1}
\end{tablehere}
```

Output:

Table 1   ... table caption ...

ID	m	R^2	x_2	Times (s)
11	100	3135	1138	< 98
12	100	3135	1138	< 99
13	100	3135	1138	< 100
14	100	3135	1138	< 101
15	100	3135	1138	< 102

By using `\tbl` command in table environment, long captions will be justified to the table width while the short or single line captions are centered. `\tbl{table caption}{tabullar environment}`.

For most tables, the horizontal rules are obtained by:

toprule   one rule at the top
colrule   one rule separating column heads from data cells
botrule   one bottom rule
Hline   one thick rule at the top and bottom of the tables with multiple column heads

To avoid the rules sticking out at either end of the table, add `@{}` before the first and after the last descriptors, e.g., @llll@. Please avoid vertical rules in tables. But if you think the vertical rule is a must, you can use the standard LaTeX `tabular` environment.

Tables should have a uniform style throughout the contribution. It does not matter how you place the inner lines of the table, but we would prefer the border lines to be of the style as shown in our sample tables. For the inner lines of the table, it looks better if they are kept to a minimum.

If tables need to extend over to a second page, the continuation of the table should be preceded by a caption, e.g., "Table 1 (*Continued*)".

Figures

A figure is obtained with the following commands

```
\begin{figurehere}
\centerline{\psfig{file=bmef1.eps,
                        width=3.2cm}}
\caption{...caption here...} \label{fig1}
\end{figurehere}
```
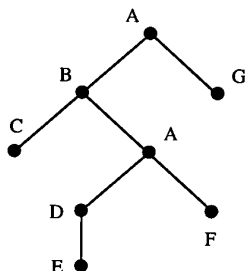

Fig. 1   ... caption here ...

Figures are to be inserted in the text nearest their first reference. Original Indian ink drawings of glossy prints are preferred. Please send one set of originals with copies. If the publisher is required to reduce the figures, ensure that the figures (including lettering and numbers) are large enough to be clearly seen after reduction.

Figures are to be sequentially numbered with Arabic numerals. The caption must be placed below the figure. For those figures with multiple parts which appear on different pages, it is best to place the full caption below the first part, and have e.g., "Fig. 1 (*Continued*)" below the last part.

Previously published material must be accompanied by written permission from the author and publisher.

The preferred graphics formats are TIF and Encapsulated PostScript (EPS) for any type of image. Our TeX installation requires EPS, but we can easily convert TIF to EPS. Many other formats, e.g., PICT (Macintosh), WMF (Windows) and various proprietary formats, are not suitable. Even if we can read such files, there is no guarantee that they will look the same on our systems as on yours.

Adjust the scaling of the figure until it is correctly positioned, and remove the declarations of the lines and any anomalous spacing.

We recommend the use of single column-wide tables and figures wherever possible. Tables and figures spanning two columns can be typeset with the following environments:

- `table*` and
- `figure*`.

Example:

Table:

```
\begin{table*}
\tbl{Comparison of ...}
{\begin{tabular}{@{}cccc@{}} \toprule
Piston mass & Analytical ...\\ \colrule
1.0... \\
0.001... \\ \botrule
\end{tabular}}
\begin{tabnote}
$^{\text a}$ Sample table footnote.\\
\end{tabnote} \label{tbl2}
\end{table*}
```
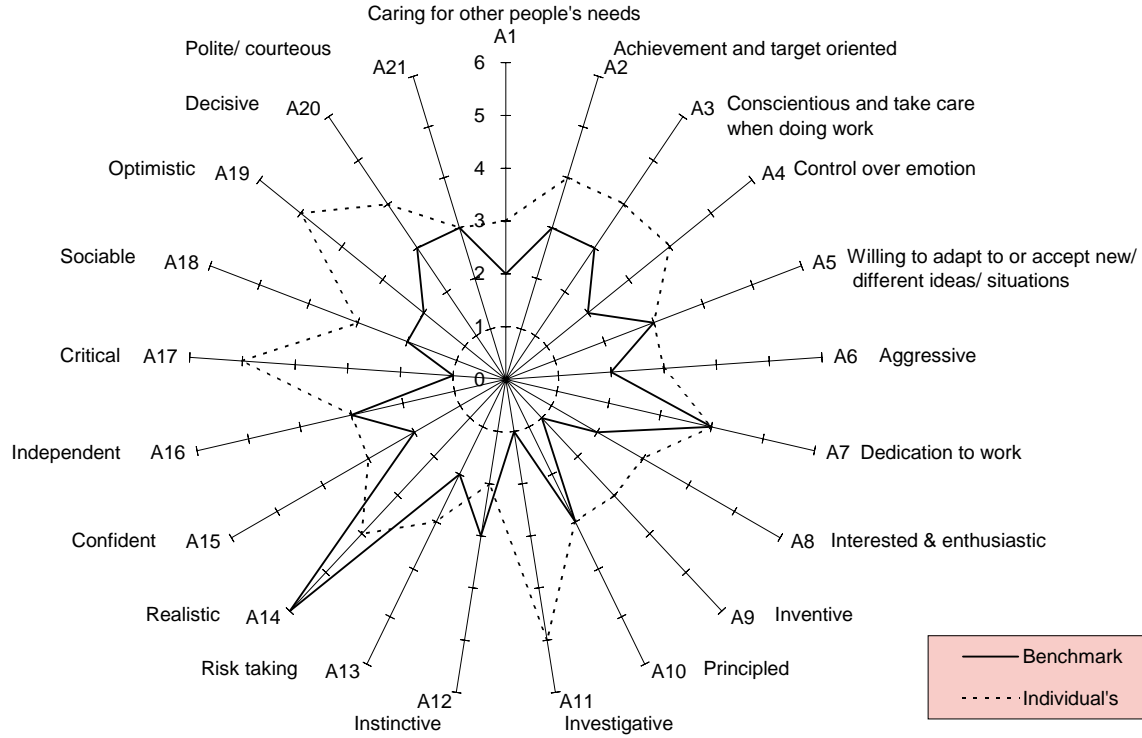
Figure:

```
\begin{figure*}
\begin{center}
\psfig{file=bmef2.eps,width=6in}
\end{center}
\caption{The bifurcating response ...}
\label{fig2}
\end{figure*}
```

Table 2   Comparison of acoustic for frequencies for piston–cylinder problem.

Piston mass	Analytical frequency (Rad/s)	TRIA6-S_1 model (Rad/s)	% Error[a]
1.0	281.0	280.81	0.07
0.1	876.0	875.74	0.03
0.01	2441.0	2441.0	0.0
0.001	4130.0	4129.3	0.16

Note: [a] Sample table footnote.

Fig. 2   The bifurcating response curves of system $\alpha = 0.5$, $\beta = 1.8$, $\delta = 0.2$, $\gamma = 0$: (a) $\mu = -1.3$ and (b) $\mu = 0.3$.

Very large figures and tables should be placed on a separate page by themselves. Landscape tables and figures can be typeset with the following environments:

- `sidewaystable` and
- `sidewaysfigure`.

Example:

```
\begin{sidewaystable*}
\tbl{Positive values of ...}
{\begin{tabular}{@{}cccccccccc@{}}
...
\end{tabular}}
\label{tbl3}
\end{sidewaystable*}
```

CITATIONS

We have used `\bibitem` to produce the bibliography. Citations in the text use the labels defined in the bibitem declaration, e.g., the first paper by Golub[1] is cited using the command `\cite{shi92}`. Bibitem labels should be unique.

For multiple citations, do not use `\cite{1}`, `\cite{2}`, but use `\cite{1,2}` instead.

When the reference forms part of the sentence, it should not be typed in superscripts, e.g.,

- "One can show from Ref. 2 that ...",

- "See Refs. 3 and 4 for more details."

This is done using the LaTeX command: "Ref.~`\refcite{name}`".

Table 3   Positive values of X_0 by eliminating Q_0 from Eqs. (15) and (16) for different values of the parameters f_0, λ_0 and α_0 in various dimension.

			Positive roots (X_0)							
f_0	λ_0	α_0	4D	5D	6D	7D	8D	10D	12D	16D
−0.033	0.034	0.1	6.75507, 1.14476	4.32936, 1.16321	3.15991, 1.1879	2.44524, 1.22434	1.92883, 1.29065	0.669541, 0.415056	—	—
−0.1	0.333	0.2	3.15662, 1.24003	1.72737, 1.48602	—	—	—	—	—	—
−0.301	0.302	0.001	2.07773, 1.65625	—	—	—	—	—	—	—
−0.5	0.51	0.001	—	—	—	—	—	—	—	—
0.1	0.1	2	1.667, 0.806578	1.1946 0.858211	—	—	—	—	—	—
0.1	0.1	10	0.463679	0.465426	0.466489	0.466499	0.464947	0.45438	0.429651	0.35278
0.1	1	0.2	—	—	—	—	—	—	—	—
0.1	5	5	—	—	—	—	—	—	—	—
1	0.001	2	0.996033, 0.414324	0.968869, 0.41436	0.91379, 0.414412	0.848544, 0.414489	0.783787, 0.414605	0.669541, 0.415056	0.577489, 0.416214	—
	0.001	0.2	0.316014, 0.275327	0.309739, 0.275856	—	—	—	—	—	—
	0.1	5	0.089435	0.089441	0.089435	0.089409	0.08935	0.089061	0.088347	0.084352
	1	3	0.128192	0.128966	0.19718, 0.41436	0.169063, 0.414412	0.142103, 0.414489	—	—	—

NOTE ADDED

A note can be added before Acknowledgments.

ACKNOWLEDGMENTS

This part should come before References. Funding information may also be included here.

APPENDICES

Appendices should be used only when absolutely necessary. They should come immediately before References. If there is more than one appendix, number them alphabetically. Number displayed equations occurring in the appendix as (A.1), (A.2), etc.:

$$\mu(n,t) = \frac{\sum\limits_{i=1}^{\infty} 1(d_i < t, N(d_i) = n)}{\int\limits_{\sigma=0}^{t} 1(N(\sigma) = n)d\sigma} \ . \qquad (A.1)$$

REFERENCES

Article titles should be stated in full but standard abbreviations should be used for journal names. Typeset reference in 9 pt Times Roman, single spaced with baselineskip of 11 pt.

Examples

Journal reference:

Shieh MJ, Wong JM ,Wang CY, Basic principle and clinical application of bipolar electrosurgical polypectomy snare, *Biomed Eng Appl Basis Comm* **4**:123, 1992.

Kolenbramder KD, Dykstra CE, Lisy JM, Torsional vibrational modes of (HF)3: IR-IR double resonance spectroscopy and electrical interaction theory, *J Chem Phys* **88**:5995, 1988.

Book reference:

Bajpai PK, in Zhang X, Ikada Y (eds.) *Biomedical materials research in the Far East (I)*, Kobunshi Kankokai Inc, Kyoto, Japan, pp. 41–42, 1994.

Boger DL, Weinreb SN, *Hetero Diels-Alder Methodology in Organic Synthesis*, Academic Press, San Diego, 1987.

REFERENCES

1. Shieh MJ, Wong JM ,Wang CY, Basic principle and clinical application of bipolar electrosurgical polypectomy snare, *Biomed Eng Appl Basis Comm* **4**:123, 1992.
2. Kolenbramder KD, Dykstra CE, Lisy JM, Torsional vibrational modes of (HF)3: IR-IR double resonance spectroscopy and electrical interaction theory, *J Chem Phys* **88**:5995, 1988.
3. Bajpai PK, in Zhang X, Ikada Y (eds.) *Biomedical materials research in the Far East (I)*, Kobunshi Kankokai Inc, Kyoto, Japan, pp. 41–42, 1994.
4. Boger DL, Weinreb SN, *Hetero Diels-Alder Methodology in Organic Synthesis*, Academic Press, San Diego, 1987.