

Research Paper

Cite this article: Erhart C, Lutz S, Mutschler MA, Scharf PA, Walter T, Mantz H, Weigel R (2019). Compact polarimetry for automotive applications. International Journal of Microwave and Wireless Technologies 1–7. <https://xxxx/xx.xxxx/00000000>

Received: xx xxxx xxxx

Revised: xx xxxx xxxx

Accepted: xx xxxx xxxx

Key words:

keyword entry 1, keyword entry 2, keyword entry 3

JEL classification:

Q11; Q12; D81; M31

MSC Codes:

Q14; Q18; D21

Abbreviations:

BDHS: Bangladesh Demographic and HealthSurvey, IDA: Fe-deficiency anaemia, IFA: Fe-folic acid, MNP: multiple micronutrient powder, VAD: vitamin A deficiency

Author for correspondence:

First author, Email: xxxx@xxxx.xxx.xx

How to use the CUP Standard Large (CSL) \LaTeX class file

First author¹, Second author², Third author², Fourth author², Fifth author² and Seventh author²

¹First author address and ²Second author address

Abstract

This sample is a guideline for preparing technical papers using \LaTeX for **CUP Standard Large (CSL)** manuscript submission. It contains the documentation for CSL \LaTeX class file, which implements the layout of the manuscript for CSL journals. This sample file uses a class file named `CSL.cls` where the authors should use during their manuscript preparation.

Introduction

This latex class file (`CSL.cls`) is available for authors to prepare the manuscript for their own publishers. It is assumed that the authors are familiar with either plain \TeX , \LaTeX , $\mathcal{A}\mathcal{M}\mathcal{S}\text{-}\text{\TeX}$ or a standard latex set-up, hence only the essential points are described in this document. For more details please see the *\LaTeX User's Guide* or *The not so short introduction to $\text{\LaTeX} 2_{\epsilon}$* (which is available online).

Installation

The `CSL.cls` must be copied into a directory where `tex` looks for an input files. The other files should be kept as a reference during the preparation of the manuscript. Please use pre-defined commands for title, authors, address, abstract, keywords, body etc. as shown in Box 1.

How to start using `CSL.cls`

Before you type anything that actually appears in the paper you need to include a `\documentclass{CSL}` command at the very beginning and the two commands that have to be a part of any latex document, `\begin{document}` at the starting and the `\end{document}` at the end of the paper. The main structure of the document should be as follows:

In order to start the second page in two column mode, please use the command `\Fpagebreak` at end of the first page text. If the above command is not given then it will throw error message during compilation.

! LaTeX Error: Please insert `\Fpagebreak` tag at the end of first page.

Preamble part

Please define the author macros, definitions and other packages in the preamble part.

Paper Title

The paper title is declared like: `\title{...}` in the standard \LaTeX manner. Line breaks `\\` may be used to equalize the length of the title lines.

Author Names

The name and associated information is declared with the `\author` command. For more details about author information see Box 1.

Box 1: Structure of a document.

```

\documentclass{CSL}

\jname{International Journal of Microwave and Wireless Technologies}
% Please include respective journal name here

\begin{document}

\supertitle{}%Insert Article type here

\title[Recto Running Head]{How to use the CUP Standard Large (CSL) \LaTeX\ class file}

\author[verso running head]{First author$^{\sim}{1}$, Second author$^{\sim}{2}$,
Third author$^{\sim}{2}$, Fourth author$^{\sim}{2}$, Fifth author$^{\sim}{2}$
and Seventh author$^{\sim}{2}$}

\corres{\name{First author} \email{xxxx@xxxx.xxx.xx}}

\address{\auadd{1}{First author address} and \auadd{2}{Second author address}}

\begin{abstract}
Insert abstract text here
\end{abstract}

\selfcitation{Cite this article here}

\received{Received dates here}

\revised{Revised dates here}

\accepted{Accepted dates here}

\keywords{Insert key words here}

\JELclassification{Insert JEL classifications}

\MSCcodes{MSC Codes here}

\Abbreviations{Insert Abbreviations here}

\maketitle

\section{....}
...
\subsection{....}
....
\subsubsection{....}
...
\paragraph{....}
....

\end{document}

```

Abstract & Keywords

The abstract is generally the first part of a paper. The abstract text is placed within the abstract environment.

Keywords should be inserted immediately after the abstract text with grouping as shown below.

```
\begin{abstract}
Abstract text here
\end{abstract}

\keywords{Keyword text here}
```

Body part

Sections

The coding for section is `\section{text}`. This will generate section number automatically. Use the starred form `\section*{text}` of the command to suppress the automatic numbering. If you want to make cross references to the section levels use the `\label` and `\ref` command. You can have sections up to five levels.

The sectioning commands are `\section`, `\subsection`, `\subsubsection`, `\paragraph` and `\subparagraph`.

Shaded Box

To get the Shaded box, please use the command.

```
\begin{boxtext}
Sample box text sample box text sample box text sample box text
sample box text sample box text sample box text sample box text sample box text sample box
\end{boxtext}
```

Output:

Sample box text sample box text sample box text sample box
text sample box text sample box text sample box text sample box
text sample box text sample box text sample box text sample box
text sample box text sample box text sample box text sample box
text sample box text sample box text sample box text sample box
text sample box text sample box text.

Figures and tables

Use the default L^AT_EX coding for figures and tables. Figure and table environments should be inserted after the citations. The figures & tables numberings will generate automatically. For example:

The coding for figure is:

```
\begin{figure}
\includegraphics{sample.eps}
\caption{Insert figure caption\label{fig1}}
\end{figure}
```

The coding for table is shown below, please use the command `\rowcolor{Theadcolor}` to get the table head in shaded format.

```
\begin{table}[!t]
\tablecolsep4pt
\processtable{Insert table caption here\label{tab1}}
{\begin{tabular*}{\textwidth}{@{\extracolsep{\fill}}l l l l@{}}\hline
\rowcolor{Theadcolor}Column head 1 & Column head 2 & Column head 3 & Column head 4\\\hline
Table body & Table body & Table body & Table body\\
Table body & Table body & Table body & Table body\\
Table body & Table body & Table body & Table body\\
Table body & Table body & Table body & Table body\\
Table body & Table body & Table body & Table body\\}
```

```

\hline
\end{tabular*}}{\begin{tablenotes}
\item note 1
\item note 2
\end{tablenotes}}
\end{table}

```

Table 1. Insert table caption here

| Column head 1 | Column head 2 | Column head 3 | Column head 4 |
|---------------|---------------|---------------|---------------|
| Table body | Table body | Table body | Table body |
| Table body | Table body | Table body | Table body |
| Table body | Table body | Table body | Table body |
| Table body | Table body | Table body | Table body |
| Table body | Table body | Table body | Table body |

note 1
note 2

As always with \LaTeX , the `\label` must be after the `\caption`, and inside the figure or table environment. The citations for figures and tables inside text can be generate automatically by using the command `\ref{key}`.

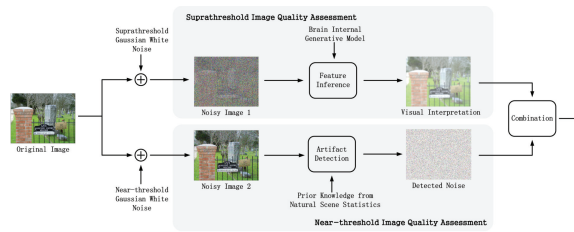


Fig. 1. Insert figure caption here

Equations

Equations are used in the same way as described in the \LaTeX manual. The equation numbers will be generated automatically. For the below coding, in parentheses flush right.

```

\begin{equation}\label{eq1}
\int^{\sim{r_2}}_0 F(r,\varphi){\rm d}r,{\rm d}\varphi = [\sigma r_2/(2\mu_0)]
\end{equation}

```

```

\begin{equation*}\label{eq1}
\int^{\infty}_0 \exp(-\lambda|z_j-z_i|)
\lambda^{-1}J_1(\lambda r_2)J_0(\lambda r_i \lambda d\lambda)
\end{equation*}

```

the desired output is:

$$\int_0^\infty \exp(-\lambda|z_j - z_i|)\lambda^{-1}J_1(\lambda r_2)J_0(\lambda r_i \lambda d\lambda) \quad (1)$$

$$\int_0^\infty \exp(-\lambda|z_j - z_i|)\lambda^{-1}J_1(\lambda r_2)J_0(\lambda r_i \lambda d\lambda)$$

This is one of the simplest equation of Latex. There are various complex equations which can be achieved by using the following Latex commands which belongs to `amsmath.sty`:

- a) `\begin{align}...\end{align}`,
- b) `\begin{eqnarray}...\end{eqnarray}`,
- c) `\begin{multline}...\end{multline}`,
- d) `\begin{matrix}...\end{matrix}`,
- e) `\begin{cases}...\end{cases}`,
- f) `\begin{array}{ll}...\end{array}`
- g) `\begin{subequations}...\end{subequations}` etc.,

Quotes and displayed text

Quotes are indented from the left and right margins. There are various types of quotes, short quote, long quote and display poetry.

The coding for short quote is `\begin{quote}...\end{quote}`.

This is a short quotation. It consists of a single paragraph of text. See how it is formatted.

The coding for long quote is

`\begin{quotation}...\end{quotation}`.

This is a longer quotation. It consists of two paragraphs of text, neither of which are particularly interesting.

This is the second paragraph of the quotation. It is just as dull as the first paragraph.

Listings

Another frequently displayed structure is a list. There are various types of list numbered, itemized and bulleted list. The following is an example of bulleted list.

```
\begin{itemize}
\item Bulleted list 1
\item Bulleted list 2
\item Bulleted list 3
\end{itemize}
```

The following is an example of an numbered list.

```
\begin{enumerate}
\item Numbered list 1
\item Numbered list 2
\item Numbered list 3
\end{enumerate}
```

The following is an example of description list.

```
\begin{description}
\item Description list 1
\item Description list 2
\item Description list 3
\end{description}
```

Enunciations: Theorem etc.

These environments have to be defined with the help of L^AT_EX's `\newtheorem` command, and also with the *AMS-L^AT_EX* package for theorems which is already with the class file. For example `\newtheorem{theorem}{Theorem}`. Pre-defined theorem styles can be used in your chapter to differentiate the theorem-like environments.

Input:

```
\begin{theorem}
This is body matter for this environment
\end{theorem}
```

Output:

Theorem 1. *This is body matter for this environment*

Similarly, we can define for lemma, corollary, proposition, definition etc.

Cross-references

There are often cross-references to figures, tables and special segments of text. L^AT_EX provides the following commands for cross referencing

`\label{marker}` and `\ref{marker}`

where “marker” is an identifier chosen by the user. L^AT_EX replaces `\ref` by the number of the section, subsection, figure, table, or theorem after which the corresponding `\label` command was issued.

Citations

For bibliography the natbib package has been defined in the template with the options `\usepackage[authoryear]{natbib}` and `\usepackage[numbered]{natbib}`.

By default, CSL.cls produce author year references. If you want numbered reference style then please use the option "numbered" in the optional of document class command. For example: `\documentclass[numbered]{CSL}`

For more details about natbib.sty can be found at <http://ctan.org/tex-archive/macros/latex/contrib/natbib/>

Acknowledgements. Acknowledgements and other unnumbered sections can be achieved by using the below command:

`\ack[Acknowledgement title]{Acknowledgment text}`

Back Matter**References**

The reference entries can be L^AT_EX free text bibliographies or from a BIB_TE_X database. BIB_TE_X is an adjunct to L^AT_EX that aids in the preparation of bibliographies. BIB_TE_X allows authors to build up a database or collection of bibliography entries that may be used for many manuscripts. They also save us the trouble of having to specify formatting. More details can be found in the *BIB_TE_X Guide*. For L^AT_EX reference entries use the `\begin{thebibliography}... \end{thebibliography}` environment to make references in your paper.

`\begin{thebibliography}{}{}`

`\bibitem[Frey \textit{et al.}(2003)]{Chen2001}`
`\textbf{Frey BS, Benz M and Stutzer A} (2003) Introducing procedural utility: not only what,`
`but also how matters. \textit{Journal of Institutional and Theoretical Economics} \textbf{60},`
`377--401.`

`\bibitem[Fullenkamp and Chami(2002)]{Chen1995}`
`\textbf{Fullenkamp R and Chami C} (2002) Trust and efficiency. \textit{Journal of Banking`
`and Finance} \textbf{26}(9), 1785--1809.`

`\bibitem[Gradstein and Justman(2002)]{Ahn1983}`
`\textbf{Gradstein M and Justman M} (2002) Education, social cohesion, and economic growth.`
`\textit{American Economic Review} \textbf{92}(4), 1192--1204.`

`\end{thebibliography}`

Formatting

Always use L^AT_EX macros rather than the lower-level T_EX macros, e.g., `\it`, `\bf` and `\tt`. The L^AT_EX macros offer much improved features. The following table summarizes the font selection commands in L^AT_EX.

LaTeX text formatting commands

| | | | |
|----------------------|------------|--------------------------|----------------|
| <code>\textit</code> | Italics | <code>\textsf</code> | Sans Serif |
| <code>\textbf</code> | Boldface | <code>\textsc</code> | Small Caps |
| <code>\texttt</code> | Typewriter | <code>\textmd</code> | Medium Series |
| <code>\textrm</code> | Roman | <code>\textnormal</code> | Normal Series |
| <code>\textsl</code> | Slanted | <code>\textup</code> | Upright Series |

LaTeX math formatting commands

| | | | |
|-----------------------|-----------------|--------------------------|---|
| <code>\mathit</code> | Math Italics | <code>\mathfrak</code> | Fraktur |
| <code>\mathbf</code> | Math Boldface | <code>\mathbb</code> | Blackboard Bold |
| <code>\mathtt</code> | Math Typewriter | <code>\mathnormal</code> | Math Normal |
| <code>\mathsf</code> | Math Sans Serif | <code>\boldsymbol</code> | Bold math for Greek letters and other symbols |
| <code>\mathcal</code> | Calligraphic | | |

Macro packages

The commonly used packages which can be used frequently are:

| | | |
|-----------------------|-----------------------|------------------------|
| <code>amsmath</code> | <code>graphicx</code> | <code>rotating</code> |
| <code>amssymb</code> | <code>endnotes</code> | <code>subfigure</code> |
| <code>amsfonts</code> | <code>setspace</code> | <code>array</code> |
| <code>xspace</code> | <code>latexsym</code> | <code>url</code> |
| <code>amscd</code> | <code>multicol</code> | <code>algorithm</code> |

Additionally, you can use other packages and these should be loaded using the `\usepackage` command in the preamble.

References

- Adade CM, de Castro SL and Soares MJ (2007) Ultrastructural localization of *Trypanosoma cruzi* lysosomes by aryl sulphatase cytochemistry. *Micron* **38**, 252–256.
- Bayer-Santos E, Aguilar-Bonavides C, Rodrigues SP, Cordero EM, Marques AF, Varela-Ramirez A, Choi H, Yoshida N, da Silveira JF and Almeida IC (2013) Proteomic analysis of *Trypanosoma cruzi* secretome: characterization of two populations of extracellular vesicles and soluble pro-teins. *Journal of Proteome Research* **12**, 883–897.

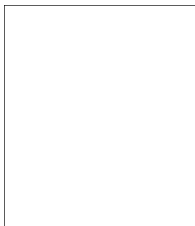
Appendix

The `\appendix` command signals that all following sections are appendices, and therefore the headings will be set as appendix headings.

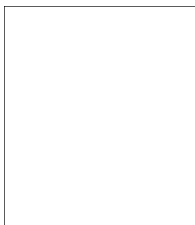
Note: All the figures, tables, equations, enunciations will be automatically numbered as A1, A2, etc. in the appendix part.

Author Biography

Please use the coding `\aubio{autho_rphoto.eps}{text...}` to get the author biography details.



First A. Author received a degree in physics from the University of A in 1998 and received his Ph.D. degree in communication engineering in 2002. He now holds a research chair at the B institute. His main research interests are design and optimization of high power microwave power amplifiers.



Second B. Author received her Diploma in 1997 from the University of C and received her Ph.D. at the D University in 2001. She became a full university professor in 2009. She is currently serving as chair of the E project and is active in the study of Si power electronics.