Article template for submissions to the Reliable Engineering Computing Workshop

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Abstract

Paper size is A4. Please do not put in page numbers. Please follow the template closely and don't make any adjustment to it. Please submit both the source and PDF files. The paper should not be shorter than 6 pages. Authors of papers to proceedings have to type these in a form suitable for direct photographic reproduction by the publisher. In order to ensure uniform style throughout the volume, all the papers have to be prepared strictly according to this template and following the instructions below. Please submit your paper as **one zipped folder** onto our submission page accessible from our call page http://rec2018.uk/index.php?uri=call. Please note that proceedings will be published in the Digital Repository of the University of Liverpool. All the conference papers will be freely available online.

Keywords: Keyword 1, Keyword 2, Template, LaTeX

1 Introduction

This is the template for articles submitted to the Reliable Computing International Workshop. Using the included BibTeX template one can cite articles [1], arXiv preprints [2], books [3], and conference proceedings [4]. It is preferred to insert citations before punctuation [1, 2]. Sections, figures, and tables are referred to by the usual \ref{...} command (as seen in Section 1).

Use the equation environment

```
\begin{equation}\label{eq:law2}
  \vec{F} = m \vec{a}.
\end{equation}
```

to display equations

$$\mathbf{F} = m\mathbf{a} + \nu\boldsymbol{\sigma}. \tag{1}$$

The `bm` package allows the use of bold face Greek letters: \bm\sigma. Equations are referred in text by the command \eqref{eq:law2} as we do here (1). Longer equations may use the align environment

```
\begin{align}
\vec{F} & = \vec{F}_1 + \vec{F}_2  + \vec{F}_3 \nonumber\\
        &\quad + \vec{F}_4 + \vec{F}_5  + \vec{F}_6 \nonumber\\
        &\qquad + \vec{F}_7 + \vec{F}_8 + \vec{F}_9.
\end{align}
```

to get

$$\begin{aligned}
\mathbf{F} &= \mathbf{F}_1 + \mathbf{F}_2 + \mathbf{F}_3 \\
&\quad + \mathbf{F}_4 + \mathbf{F}_5 + \mathbf{F}_6 \\
&\qquad + \mathbf{F}_7 + \mathbf{F}_8 + \mathbf{F}_9.
\end{aligned} \tag{2}$$

A sentence-ending space should be larger than the space between words within a sentence. You sometimes have to type special commands in conjunction with punctuation characters to get this right, as in the following sentence. Gnats, gnus, etc. all begin with G. You should check the spaces after periods when reading your output to make sure you haven't forgotten any special cases. Generating an ellipsis ... with the right spacing around the periods requires a special command.
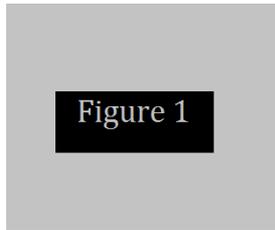
Figure 1: This is an example of a single column-wide figure. Figure captions are preferably self-contained and in vector format (versus raster format).

$\mathrm{T}_{\mathrm{E}}\mathrm{X}$ interprets some common characters as commands, so you must type special commands to generate them. These characters include the following: $ & % # { and }. In printing, text is emphasized by using an *italic* type style.

A long segment of text can also be emphasized in this way. Text within such a segment given additional emphasis with Roman *type. Italic type loses its ability to emphasize and become simply distracting when used excessively.*

It is sometimes necessary to prevent $\mathrm{T}_{\mathrm{E}}\mathrm{X}$ from breaking a line where it might otherwise do so. This may be at a space, as between the "Mr." and "Jones" in "Mr. Jones", or within a word—especially when the word is a symbol like *itemnum* that makes little sense when hyphenated across lines.

$\mathrm{T}_{\mathrm{E}}\mathrm{X}$ is good at typesetting mathematical formulas like $x - 3y = 7$ or $a_1 > x^{2n}/y^{2n} > x'$. Remember that a letter like x is a formula when it denotes a mathematical symbol, and should be treated as one.

2 Figures and tables

Figures are inserted into the document by the environment

```
\begin{figure}[tb]
  \centering
  \includegraphics[width = 0.3\linewidth]{figure1.pdf}
  \caption{...}\label{fig:plot1}
\end{figure}
```

shows how to insert Figure 1. The option [tb] tells the compiler to place the figure at the top (first priority) or bottom (second priority) of the page. The figure can be scaled using the [width=...] option. Usually the width is specified as a fraction, (say 0.3) of \linewidth. This template can use *.pdf, *.png, *.jpg figures.

2.1 Subfigures

To save space, multiple subfigures may also be inserted as subfloats within a single figure environment, as in Figure 2. Here is the code:

```
\begin{figure}[tbp]
  \centering
  \subfloat{\makebox[0.4\textwidth]{\includegraphics{a.pdf}\label{fig:fa}}}
  \quad % or other spacing between figures
  \subfloat{\makebox[0.4\textwidth]{\includegraphics{b.jpg}\label{fig:fb}}}
  \caption{Multiple images can be inserted inline.}\label{fig:plots}
\end{figure}
```

Table 1: This is an example of a single column table. Captions are preferably self-contained and placed above the table. Columns may be left-, center-, decimal marker-, or right-aligned.

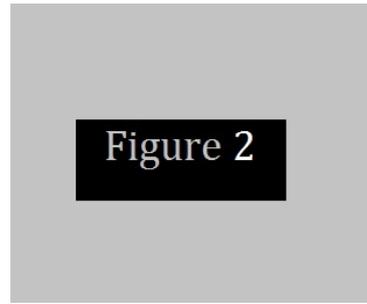| Example	Count 1	Count 2	Total
A	2.345	5.435	16.78(3)
B	3.0	12.0	43.2(5)

(a) Optional subcaption of this subfigure.

Figure 2: Multiple images can be inserted inline.

2.2 Tables

In the sample Table 1 the environment

```
\begin{table}
\centering
\caption{...}
 \begin{tabular}{l c d{2.3} r}
   \toprule
   ... & ... & ... & ... \\
   \midrule
   ... & ... & ... & ... \\
   \bottomrule
 \end{tabular}
\end{table}
```

constructs a four-column table with the first column left-aligned, second column centered, third column aligned on the decimal point with 2 integer digits and 3 decimal places, and the fourth column right-aligned. Ampersands `&` separate columns while double backslashes `\\` start a new row.

3 Using BibTeX for the References

The included BibTeX file "`biblio.bib`" contains several sample entries. BibTeX formatted citations are easily downloadable from search engines. Please use standard journal abbreviations. As much as possible, do include the `DOI={10.XXXX/XXXX}`, entry so that references are automatically hyperlinked (**do not include** the leading `http:\\dx.doi.org\`).

For a journal article, the recommended fields to be filled in are

```
@article{articlekey,
title={...},
author={Full Surname Sr., First N. and ...},
journal={J. Abbrev.},
volume={33},
pages={555},
year={2016},
doi={10.1000/num.1000}
}
```

Each author is separated by the word `and`. Suffixes are attached to the author last name.

4 Conclusions

Here is the Conclusions or Summary section.

Acknowledgments

Here are the acknowledgments. Note the asterisk `\section*{Acknowledgments}` that signifies that this section is unnumbered.

References

[1] A. B. Surname, F. N. Twoword Surname, I. M. Suffix III, and X. V. Fourth, Title of journal article in sentence case with capitalized Proper nouns like Hall effect, *J. Abbrev.* **33**, 555 (2016), Please, do not forget the DOI.

[2] A. Hyphenated-Lastname and X. J. Lastname Jr., Title of eprint or arXiv paper, arXiv:1601.00000 (2016).

[3] B. V. Lastname and F. Last, *Title of Book* (Publisher Name Inc., City Address, 2007).

[4] F. N. Lastname, in *Proceedings of the 10th Conference of Organization* (Conference Venue, Country, 2016), SPP–2015–XXX.