The Name of the Title is Hope

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Figure 1: Seattle Mariners at Spring Training, 2010.

ABSTRACT

A clear and well-documented \LaTeX{} document is presented as an article formatted for publication by ACM in a conference proceedings or journal publication. Based on the “acmart” document class, this article presents and explains many of the common variations, as well as many of the formatting elements an author may use in the preparation of the documentation of their work.

CCS CONCEPTS

- Computer systems organization → Embedded systems; Redundancy; Robotics; Networks → Network reliability.

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If you are new to publishing with ACM, this document is a valuable guide to the process of preparing your work for publication. If you have published with ACM before, this document provides insight and instruction into more recent changes to the article template.

Figure 1: Seattle Mariners at Spring Training, 2010.

KEYWORDS

datasets, neural networks, gaze detection, text tagging

ACM Reference Format:


1 INTRODUCTION

ACM’s consolidated article template, introduced in 2017, provides a consistent \LaTeX{} style for use across ACM publications, and incorporates accessibility and metadata-extraction functionality necessary for future Digital Library endeavors. Numerous ACM and SIG-specific \LaTeX{} templates have been examined, and their unique features incorporated into this single new template.

If you are new to publishing with ACM, this document is a valuable guide to the process of preparing your work for publication. If you have published with ACM before, this document provides insight and instruction into more recent changes to the article template.

Unpublished working draft. Not for distribution.
2 TEMPLATE OVERVIEW

As noted in the introduction, the “acmart” document class can be used to prepare many different kinds of documentation — a double-blind initial submission of a full-length technical paper, a two-page SIGGRAPH Emerging Technologies abstract, a “camera-ready” journal article, a SIGCHI Extended Abstract, and more — all by selecting the appropriate template style and template parameters.

This document will explain the major features of the document class. For further information, the BibTeX User’s Guide is available from https://www.acm.org/publications/proceedings-template.

2.1 Template Styles

The primary parameter given to the “acmart” document class is the template style which corresponds to the kind of publication or SIG publishing the work. This parameter is enclosed in square brackets and is a part of the documentclass command:

\documentclass[STYLE]{acmart}

Journals use one of three template styles. All but three ACM journals use the acmsmall template style:

\begin{itemize}
  \item acmsmall: The default journal template style.
  \item acmlarge: Used by JOCCH and TAP.
  \item acmtog: Used by TOG.
\end{itemize}

The majority of conference proceedings documentation will use the acmconf template style:

\begin{itemize}
  \item acmconf: The default proceedings template style.
  \item sigchi: Used for SIGCHI conference articles.
  \item sigchi-a: Used for SIGCHI "Extended Abstract" articles.
  \item sigplan: Used for SIGPLAN conference articles.
\end{itemize}

2.2 Template Parameters

In addition to specifying the template style to be used in formatting your work, there are a number of template parameters which modify some part of the applied template style. A complete list of these parameters can be found in the BIBTEX User’s Guide.

Frequently-used parameters, or combinations of parameters, include:

\begin{itemize}
  \item anonymous, review: Suitable for a "double-blind" conference submission. Anonymizes the work and includes line numbers. Use with the \texttt{\textbackslash acmSubmissionID} command to print the submission’s unique ID on each page of the work.
  \item authorversion: Produces a version of the work suitable for posting by the author.
  \item screen: Produces colored hyperlinks.
\end{itemize}

This document uses the following string as the first command in the source file:

\documentclass[STYLE, authordraft]{acmart}
7 RIGHTS INFORMATION

Authors of any work published by ACM will need to complete a rights form. Depending on the kind of work, and the rights management choice made by the author, this may be copyright transfer, permission, license, or an OA (open access) agreement.

Regardless of the rights management choice, the author will receive a copy of the completed rights form once it has been submitted. This form contains LaTeX commands that must be copied into the source document. When the document source is compiled, these commands and their parameters add formatted text to several areas of the final document:

- the “ACM Reference Format” text on the first page.
- the “rights management” text on the first page.
- the conference information in the page header(s).

Rights information is unique to the work; if you are preparing several works for an event, make sure to use the correct set of commands with each of the works.

The ACM Reference Format text is required for all articles over one page in length, and is optional for one-page articles (abstracts).

8 CCS CONCEPTS AND USER-DEFINED KEYWORDS

Two elements of the “acmart” document class provide powerful taxonomic tools for you to help readers find your work in an online search.

The ACM Computing Classification System — https://www.acm.org/publications/class-2012 — is a set of classifiers and concepts that describe the computing discipline. Authors can select entries from this classification system, via https://dl.acm.org/ccs/ccs.cfm, and generate the commands to be included in the \LaTeX\ source.

User-defined keywords are a comma-separated list of words and phrases of the authors’ choosing, providing a more flexible way of describing the research being presented.

CCS concepts and user-defined keywords are required for for all articles over two pages in length, and are optional for one- and two-page articles (or abstracts).

9 SECTIONING COMMANDS

Your work should use standard \LaTeX\ sectioning commands: section, subsection, subsubsection, and paragraph. They should be numbered; do not remove the numbering from the commands.

Simulating a sectioning command by setting the first word or words of a paragraph in boldface or italicized text is not allowed.

10 TABLES

The “acmart” document class includes the “booktabs” package — https://ctan.org/pkg/booktabs — for preparing high-quality tables.

Table captions are placed above the table. Because tables cannot be split across pages, the best placement for them is typically the top of the page nearest their initial cite. To ensure this proper “floating” placement of tables, use the environment \texttt{table} to enclose the table’s contents and the table caption. The contents of the table itself must go in the \texttt{tabular} environment, to be aligned properly in rows and columns, with the desired horizontal and vertical rules. Again, detailed instructions on \texttt{tabular} material are found in the \texttt{LaTeX\ User’s Guide}.

Immediately following this sentence is the point at which Table 1 is included in the input file; compare the placement of the table here with the table in the printed output of this document.

To set a wider table, which takes up the whole width of the page’s live area, use the environment \texttt{table*} to enclose the table’s contents and the table caption. As with a single-column table, this wide table will “float” to a location deemed more desirable. Immediately following this sentence is the point at which Table 2 is included in the input file; again, it is instructive to compare the placement of the table here with the table in the printed output of this document.

Table 1: Frequency of Special Characters

<table>
<thead>
<tr>
<th>Non-English or Math</th>
<th>Frequency</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\varnothing$</td>
<td>1 in 1,000</td>
<td>For Swedish names</td>
</tr>
<tr>
<td>$\pi$</td>
<td>1 in 5</td>
<td>Common in math</td>
</tr>
<tr>
<td>$$</td>
<td>4 in 5</td>
<td>Used in business</td>
</tr>
<tr>
<td>$\Psi^2_1$</td>
<td>1 in 40,000</td>
<td>Unexplained usage</td>
</tr>
</tbody>
</table>

11 MATH EQUATIONS

You may want to display math equations in three distinct styles: inline, numbered or non-numbered display. Each of the three are discussed in the next sections.

11.1 Inline (In-text) Equations

A formula that appears in the running text is called an inline or in-text formula. It is produced by the \texttt{math} environment, which can be invoked with the usual \texttt{$\begin{math} . . . \end{math}$} construction or with the short form $ . . . $. You can use any of the symbols and structures, from $\sigma$ to $\omega$, available in \LaTeX\ [23]; this section will simply show a few examples of in-text equations in context. Notice how this equation: $\lim_{n \to \infty} x = 0$, set here in in-line math style, looks slightly different when set in display style. (See next section).

$\lim_{n \to \infty} x = 0$ \hfill (1)

11.2 Display Equations

A numbered display equation—one set off by vertical space from the text and centered horizontally—is produced by the \texttt{equation} environment. An unnumbered display equation is produced by the \texttt{displaymath} environment.

Again, in either environment, you can use any of the symbols and structures available in \LaTeX\; this section will just give a couple of examples of display equations in context. First, consider the equation, shown as an inline equation above:

$\sum_{i=0}^{n} x + 1$

Notice how it is formatted somewhat differently in the \texttt{displaymath} environment. Now, we’ll enter an unnumbered equation:

$\sum_{i=0}^{n} x + 1$
and follow it with another numbered equation:
\[ \sum_{i=0}^{\infty} x_i = \int_{0}^{\pi+2} f \] (2)
just to demonstrate \LaTeX{}’s able handling of numbering.

12 FIGURES
The “figure” environment should be used for figures. One or more images can be placed within a figure. If your figure contains third-party material, you must clearly identify it as such, as shown in the example below.

![Figure 2: 1907 Franklin Model D roadster. Photograph by Harris & Ewing, Inc. [Public domain], via Wikimedia Commons. (https://goo.gl/VLCRBB).](image)

Your figures should contain a caption which describes the figure to the reader. Figure captions go below the figure. Your figures should also include a description suitable for screen readers, to assist the visually-challenged to better understand your work.

Figure captions are placed below the figure.

12.1 The “Teaser Figure”
A “teaser figure” is an image, or set of images in one figure, that are placed after all author and affiliation information, and before the body of the article, spanning the page. If you wish to have such a figure in your article, place the command immediately before the \maketitle command:
\begin{teaserfigure}
\includegraphics[width=\textwidth]{sampleteaser}
\Description{figure description}
\end{teaserfigure}

13 CITATIONS AND BIBLIOGRAPHIES
The use of \LaTeX{} for the preparation and formatting of one’s references is strongly recommended. Authors’ names should be complete — use full first names (“Donald E. Knuth”) not initials (“D. E. Knuth”) — and the salient identifying features of a reference should be included: title, year, volume, number, pages, article DOI, etc.

The bibliography is included in your source document with these two commands, placed just before the \end{document} command:
\begin{verbatim}
\bibliographystyle{ACM-Reference-Format}
\bibliography{bibfile}
\end{verbatim}

where “bibfile” is the name, without the “.bib” suffix, of the \LaTeX{} file.

Citations and references are numbered by default. A small number of ACM publications have citations and references formatted in the “author year” style; for these exceptions, please include this command in the preamble (before the command “\begin{document}”) of your \LaTeX{} source:
\begin{verbatim}
\citetitle{acmauthoryear}
\end{verbatim}

Some examples. A paginated journal article [2], an enumerated journal article [10], a reference to an entire issue [9], a monograph (whole book) [22], a monograph/whole book in a series (see 2a in spec. document) [16], a divisible-book such as an anthology or compilation [12] followed by the same example, however we only output the series if the volume number is given [13] (so Editor00a’s series should NOT be present since it has no vol. no.), a chapter in a divisible book [34], a chapter in a divisible book in a series [11], a multi-volume work as book [21], an article in a proceedings (of a conference, symposium, workshop for example) (paginated proceedings article) [3], a proceedings article with all possible elements [33], an example of an enumerated proceedings article [14], an informally published work [15], a couple of preprints [6, 7], a doctoral dissertation [8], a master’s thesis: [4], an online document / world wide web resource [1, 27, 35], a video game (Case 1) [26] and (Case 2) [25] and [24] and (Case 3) a patent [32], work accepted for publication [29], ‘YYYYb’-test for prolific author [30] and [31]. Other cites might contain ‘duplicate’ DOI and URLs (some SIAM articles) [20], Boris / Barbara Beeton: multi-volume works as books [18] and [17]. A couple of citations with DOIs: [19, 20]. Online citations: [35–37]. Artifacts: [28] and [5].
14 ACKNOWLEDGMENTS

Identification of funding sources and other support, and thanks to individuals and groups that assisted in the research and the preparation of the work should be included in an acknowledgment section, which is placed just before the reference section in your document.

This section has a special environment:
\begin{acks}
\end{acks}

so that the information contained therein can be more easily collected during the article metadata extraction phase, and to ensure consistency in the spelling of the section heading.

Authors should not prepare this section as a numbered or unnumbered section; please use the “acks” environment.

15 APPENDICES

If your work needs an appendix, add it before the “\end{document}” command at the conclusion of your source document.

Start the appendix with the “\appendix” command:
\appendix

and note that in the appendix, sections are lettered, not numbered.

This document has two appendices, demonstrating the section and subsection identification method.

16 SIGCHI EXTENDED ABSTRACTS

The “sigchi-a” template style (available only in \LaTeX and not in Word) produces a landscape-orientation formatted article, with a wide left margin. Three environments are available for use with the “sigchi-a” template style, and produce formatted output in the margin:

- \sidebar: Place formatted text in the margin.
- \marginfigure: Place a figure in the margin.
- \margintable: Place a table in the margin.

ACKNOWLEDGMENTS

To Robert, for the bagels and explaining CMYK and color spaces.

REFERENCES


A RESEARCH METHODS

A.1 Part One


A.2 Part Two


B ONLINE RESOURCES


Nam interdum magna at lectus dignissim, ac dignissim lorem rhoncus. Maecenas eu arcu ac neque placerat aliquam. Nunc pulvinar massa et mattis lacinia.