

CS&SE@SW 2022 Authors' Instructions: Preparation of Camera-Ready Contributions to SCITEPRESS Proceedings

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Keywords: The paper must have at least one keyword. The text must be without the use of bold or italic font style. For more than one keyword, please use a comma as a separator. Keywords must be titlecased.

Abstract: The abstract should summarize the contents of the paper and should contain at least 70 and at most 200 words. The text must be set to 9-point font size.

1 ON THE L^AT_EX

You can freely use any L^AT_EX compatible typesetting system (e.g., TeXStudio + TexLive is a good choice for any operating systems), but if you don't to be involved into the L^AT_EX system administration, we propose to use a cloud based L^AT_EX editors like Overleaf (www.overleaf.com). After registering at www.overleaf.com, you can start your paper revision with this template using 'New Project' – 'Upload Project' menu (figure 1).

The next step is to select the template archive (figure 2).

^a <https://orcid.org/0000-0001-8318-3794>

^b <https://orcid.org/0000-0002-1261-1170>

^c <https://orcid.org/0000-0001-7569-1721>

^d <https://orcid.org/0000-0003-0789-0272>

^e <https://orcid.org/0000-0002-8090-9569>

^f <https://orcid.org/0000-0002-8911-5677>

To get a camera-ready version of your paper in PDF, you can click to 'Download PDF' icon or use 'Menu' to download both L^AT_EX source files (ZIP) and camera-ready version (PDF) (figure 3).

The most-often recommended tutorial is the '(Not So) Short Guide to L^AT_EX2 ϵ ' (<https://www.ctan.org/tex-archive/info/lshort/>).

2 ON THE TEMPLATE

SCITEPRESS proceedings article template provides a consistent L^AT_EX style for use across SCITEPRESS publications, and incorporates accessibility and metadata-extraction functionality. If you are new to publishing with SCITEPRESS, this document is a valuable guide to the process of preparing your work for publication.

The template is composed by a set of 9 files, in the

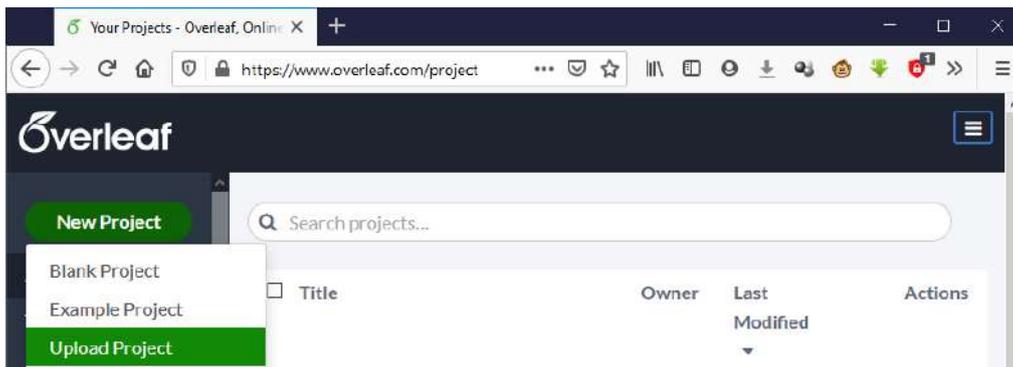


Figure 1: How to upload your project to Overleaf.

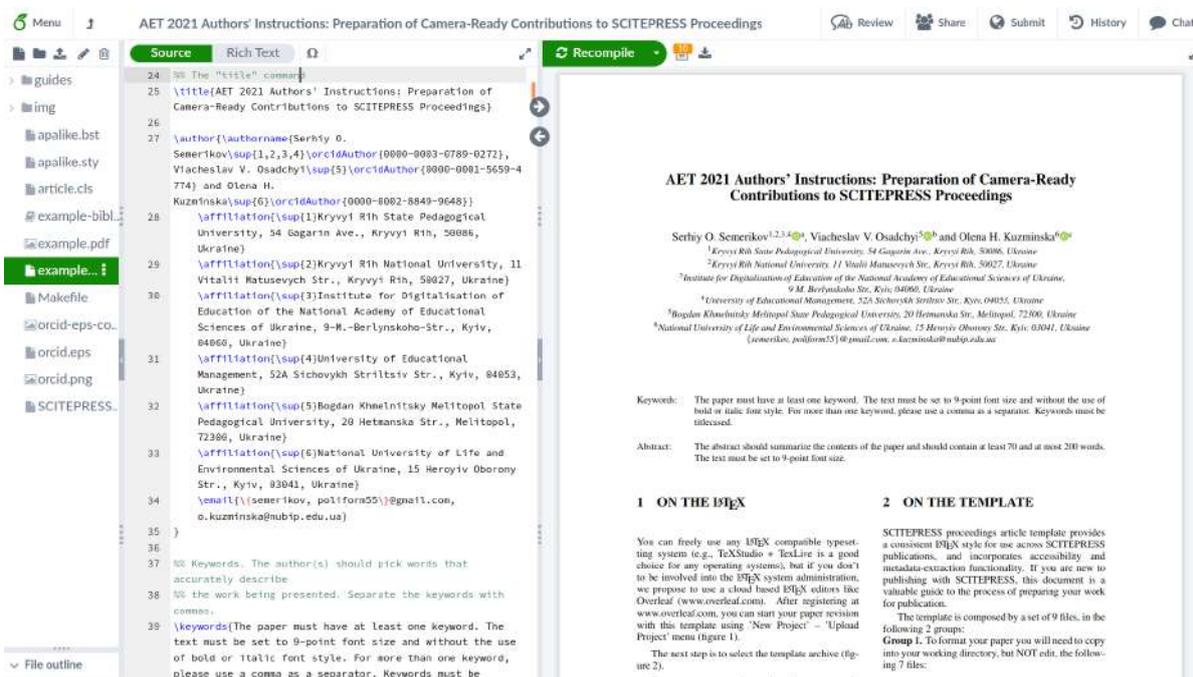


Figure 2: Overleaf, online LaTeX editor.



Figure 3: How to download your project from Overleaf.

following 2 groups:

Group 1. To format your paper you will need to copy into your working directory, but NOT edit, the following 7 files:

- apalike.bst
- apalike.sty
- article.cls
- SCITEPRESS.sty

- orcid.eps
- orcid.png
- orcid-eps-converted-to.pdf

Group 2. Additionally, you may wish to copy and edit the following 2 example files:

- example.tex
- example-bibliography.bib

3 FIRST SECTION

This section must be in one column.

3.1 Title and Subtitle

Use the command `\title` and follow the given structure in “example.tex”. The title and subtitle must be with initial letters capitalized (titlecased). The separation between the title and subtitle is done by adding a colon “:” just before the subtitle beginning. In the title or subtitle, prepositions like “is”, “or”, “then”, etc. should not be capitalized unless they are the first word of the title or subtitle. No formulas or special characters of any form or language are allowed in the title or subtitle.

3.2 Authors and Affiliations

Each author must be defined separately for accurate metadata identification. Multiple authors may share one affiliation. Authors’ names should not be abbreviated; use full first names wherever possible. Include authors’ ORCIDs and e-mail addresses whenever possible.

The author names and affiliations could be formatted in two ways:

1. Group the authors per affiliation.
2. Use an explicit mark to indicate the affiliations.

Author block example shown in figure 4.

3.2.1 Keywords

Use the command `\keywords` and follow the given structure:

```
\keywords{Keyword1,  
Keyword 2,  
Last Keyword.}
```

Each paper must have at least one keyword. If more than one is specified, please use a comma as a separator. Keywords must be titlecased. The sentence must end with a period.

3.2.2 Abstract

Use the command `\abstract` and follow the given structure:

```
\abstract{  
This is an abstract.  
}
```

Each paper must have an abstract up to 200 words. The sentence must end with a period.

At the end of first section add a set of commands:

```
\onecolumn  
\maketitle  
\normalsize  
\setcounter{footnote}{0}  
\vfill
```

4 SECOND SECTION

This section must be in two columns.

Section, subsection and sub-subsection first paragraph should not have the first line indent.

To remove the paragraph indentation (only necessary for the sections), use the command `\noindent` before the paragraph first word.

4.1 Sectioning Commands

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

4.1.1 Section Titles

The heading of a section title must be with initial letters capitalized (titlecased):

```
\section{\uppercase{Second Section}}
```

4.1.2 Subsection and Sub-Subsection Titles

The heading of a subsection and sub-subsection title should be with initial letters capitalized (titlecased).

Preposition words like “is”, “or”, “then”, etc. should not be capitalized unless they are the first word of the subsection title.

```
\subsection{Subsection Title}  
\subsubsection{Sub-Subsection Title}
```

4.2 Tables

Tables should be numbered sequentially throughout the text and referred to in the text by number (table 1, etc. **rather than** tab. 1). Each table should be a float and be positioned within the text at the most convenient place near to where it is first mentioned in the text. It should have an explanatory caption which should be as concise as possible.

Table captions are placed *above* the table. The final sentence of a caption should end with a period.

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

```

\author{\authorname{First Author Name\sup{1}\orcidAuthor{0000-0000-0000-0000},
                Second Author Name\sup{1}\orcidAuthor{0000-0000-0000-0000}
                and
                Third Author Name\sup{2}\orcidAuthor{0000-0000-0000-0000}}
\affiliation{\sup{1}Institute of Problem Solving, XYZ University, My Street, MyTown,
                MyCountry}
\affiliation{\sup{2}Department of Computing, Main University, MySecondTown, MyCountry}
\email{\{f\_author, s\_author\}@ips.xyz.edu, t\_author@dc.mu.edu}
}

```

Figure 4: Author block example.

“floating” placement of tables, use the environment `table` to enclose the table’s contents and the table caption. The contents of the table itself must go in the `tabular` environment, to be aligned properly in rows and columns, with the desired horizontal and vertical rules.

Immediately following this sentence is the point at which table 3 is included in the input file; compare the placement of the table here with the table in the printed output of this document.

Tables must appear inside the designated margins or they may span the two columns. Tables in two columns must be positioned at the top or bottom of the page within the given margins. To span a table in two columns please add an asterisk (*) to the table `\begin` and `\end` command:

```

\begin{table*}

\end{table*}

```

Tables should be centered and should always have a caption positioned above it. The font size to use is 9-point. No bold or italic font style should be used.

Table 1: This caption has one line so it is centered.

Example column 1	Example column 2
Example text 1	Example text 2

Table 2: This caption has more than one line so it has to be justified.

Example column 1	Example column 2
Example text 1	Example text 2

You can find a lot of examples at *Overleaf documentation on tables* (<https://www.overleaf.com/learn/latex/Tables>).

4.3 Algorithms and Listings

Algorithms and listings captions should have font size 9-point, no bold or italic font style should be used and the final sentence of a caption should end with a pe-

riod. Captions with one line should be centered and if it has more than one line it should be set to justified.

4.3.1 Program Code

Program listing or program commands in text should be set in typewriter form such as Courier New using `small` and `verbatim` environments.

Example of a computer program in C:

```

#include <stdio.h>

int main(int argc, char *argv[])
{
    int i;

    for(i=0; i<argc; i++)
        printf("argv[%d] = %s\n", i, *(argv+i));
}

```

The text must be aligned to the left.

4.4 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.

Equations may be numbered sequentially throughout the text (i.e., (1), (2), (3), ...) or numbered by section (i.e., (1.1), (1.2), (2.1), ...) depending on the author’s personal preference. In articles with several appendices equation numbering by section is useful in the appendices even when sequential numbering has been used throughout the main body of the text: for example, A.1, A.2 and so forth. When referring to an equation in the text, always put the equation number in brackets – e.g. ‘as in equation (2)’ or ‘as in equation (2.1)’ – and always spell out the word ‘equation’ in full, e.g. ‘if equation (5) is factorized’; do not use abbreviations such as ‘eqn.’ or ‘eq.’.

4.4.1 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 `math`

Table 3: Frequency of special characters.

Non-English or Math	Frequency	Comments
∅	1 in 1,000	For Swedish names
π	1 in 5	Common in math
\$	4 in 5	Used in business
Ψ ₁ ²	1 in 40,000	Unexplained usage

environment, which can be invoked with the usual `\begin ... \end` construction or with the short form `$... $`. You can use any of the symbols and structures, from α to ω ; this section will simply show a few examples of in-text equations in context. Notice how this equation: $\lim_{n \rightarrow \infty} \frac{1}{n} = 0$, set here in in-line math style, looks slightly different when set in display style. (See next subsection).

4.4.2 Display Equations

A numbered display equation – one set off by vertical space from the text and centered horizontally – is produced by the `equation` environment. An unnumbered display equation is produced by the `displaymath` environment (or `equation*` with `amsmath` package).

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:

```
\begin{equation}
\lim_{n \rightarrow \infty} \frac{1}{n} = 0.
\end{equation}
```

$$\lim_{n \rightarrow \infty} \frac{1}{n} = 0. \quad (1)$$

Notice how it is formatted somewhat differently in the `displaymath` environment. Now, we'll enter an unnumbered equation:

```
\begin{displaymath}
S_n = \sum_{i=1}^n x_i,
\end{displaymath}
```

$$S_n = \sum_{i=1}^n x_i,$$

and follow it with another numbered equation:

```
\begin{equation}\label{lim}
\lim_{x \rightarrow 0} (1 + x)^{1/x} = e
\end{equation}
```

$$\lim_{x \rightarrow 0} (1 + x)^{1/x} = e \quad (2)$$

just to demonstrate \LaTeX 's able handling of numbering.

Usually, equations should be centred and should be numbered with the number on the right-hand

side. (You can find an additional examples of alignment at *Overleaf documentation on aligning equations with amsmath* (https://www.overleaf.com/learn/latex/Aligning_equations_with_amsmath)).

Using `\label{equation}` you can refer to corresponding equation (e.g., equation (2)) by number.

4.5 Figures

Figures must be included in the source code of an article at the appropriate place in the text not grouped together at the end.

Figures should be centered and should always have a caption (see figure 7). Figure captions go below the figure. No bold or italic font style should be used in figure caption. The final sentence of a caption should end with a period.

As much lettering as possible should be removed from the figure itself and included in the caption. If a figure has parts, these should be labelled (a), (b), (c), etc.

Place the figure as close as possible after the point where it is first referenced in the text. If there are a large number of figures it might be necessary to place some before their text citation. Figures should never appear within or after the reference list.

Place two figures side-by-side if they will fit comfortably like this as it saves space. At times it may be convenient to put two figures side by side or the caption at the side of a figure. To put figures side by side, within a figure environment, put each figure and its caption into a minipage with an appropriate width (e.g. `3in` or `18pc` if the figures are of equal size) and then separate the figures slightly by adding some horizontal space between the two minipages (e.g. `\hspace{.2in}` or `\hspace{1.5pc}`). To get the caption at the side of the figure add the small horizontal space after the `\includegraphics` command and then put the `\caption` within a minipage of the appropriate width aligned bottom, i.e. `\begin{minipage}[b]{3in}` etc.

The “figure” environment should be used for figures. One or more images can be placed within a figure.

Figures in two columns must be positioned at the top or bottom of the page within the given margins.

To span a figure in two columns please add an asterisk (*) to the figure `\begin` and `\end` command.

For figures with fixed position in text use syntax of figure 7:

```
\begin{figure}[h]
\centering
\includegraphics[width=0.75\linewidth]
{img/example-franklin}
\caption{1907 Franklin Model D roadster.}
\label{fig-0}
\end{figure}
```

If a figure has parts these should be labelled as (a), (b), (c) etc on the actual figure. Parts should not have separate captions (see figure 8).

```
\begin{figure}[t]
\begin{center}
\begin{minipage}[b]{0.47\columnwidth}
\includegraphics[width=1\columnwidth]
{img/name.eps}
\begin{center}(a)\end{center}
\end{minipage}
\hspace{0.04\columnwidth}
\begin{minipage}[b]{0.47\columnwidth}
\includegraphics[width=1\columnwidth]
{img/name.eps}
\begin{center}(b)\end{center}
\end{minipage}
\end{center}
\caption{\label{fig5}A caption of figure
of two parts, (a) and (b).}
\end{figure}
```

4.5.1 Colour Illustrations and Resolution

Please produce your figures electronically, and integrate them into your document and zip file.

You are free to use colour illustrations.

Check that in line drawings, lines are not interrupted and have a constant width. Grids and details within the figures must be clearly readable and may not be written one on top of the other.

Figure resolution should be at least 300 dpi (we prefer 600 dpi).

Don't use the lossy compressed images (e.g., JPEG).

5 CITATIONS AND BIBLIOGRAPHIES

References and citations should follow the APA (Author, date) System Convention. Besides that, all refer-

ences should be cited in the text. No numbers with or without brackets should be used to list the references.

References should be cited in the text by placing sequential numbers in brackets using `\cite` (for example, (Semerikov et al., 2000), (Kiv and Soloviev, 1979; Morkun et al., 2018; Editor, 2007)), (Spirin, 2005; Osadcha and Osadchyi, 2020; Vakaliuk et al., 2021)). A complete reference should provide enough information to locate the article. The terms *loc. cit.* and *ibid.* should not be used.

Unpublished conferences and reports should generally not be included in the reference list and articles in the course of publication should be entered only if the journal of publication is known.

A thesis submitted for a higher degree may be included in the reference list if it has not been superseded by a published paper and is available through a library; sufficient information should be given for it to be traced readily.

5.1 Formatting Reference Lists

The use of Bib_TE_X for the preparation and formatting of one's references is **mandatory**.

The bibliography is included in your source document with this command, placed just before the `\end{document}` command:

```
\bibliographystyle{apalike}
{\small
\bibliography{bibfile}
}
```

where "bibfile" is the name, without the ".bib" suffix, of the Bib_TE_X file.

5.2 Bibliographic Data Fields

5.2.1 References to Printed Journal Articles

A normal reference to a journal article is constructed as follows:

```
@article{Osadchyi2017133,
author={Osadchyi, V. and Osadcha, K. and
Eremeev, V.},
title={The model of the intelligence
system for the analysis of
qualifications frameworks of
{European} countries},
journal={{International} Journal of
Computing}},
year={2017},
volume={16},
number={3},
pages={133-142},
note={\url
{https://doi.org/10.47839/ijc.16.3.896}}
}
```



Figure 5: Figure caption for first of two sided figures.

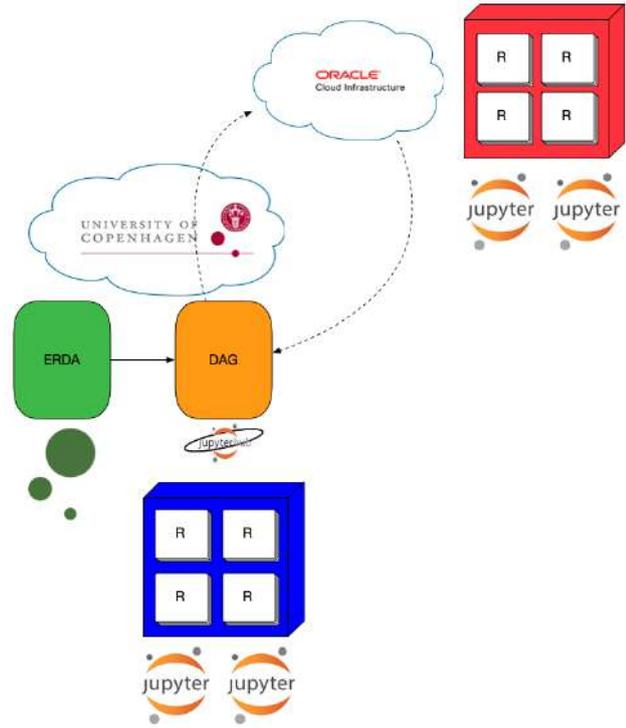


Figure 6: Figure caption for second of two sided figures.



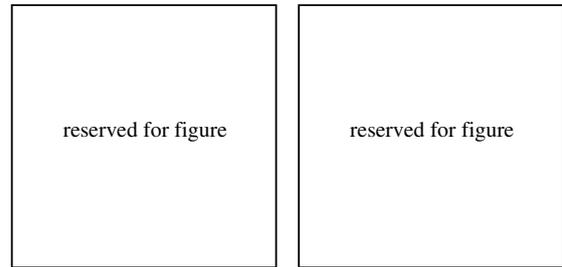
Figure 7: 1907 Franklin Model D roadster.

5.2.2 References to Books, Conference Proceedings and Reports

References to books, proceedings and reports are similar to journal references:

- Complete book

```
@book{Morkun,
  author = {Vladimir Morkun and
    Serhiy Semerikov and
    Svitlana Hryshchenko},
  title = {Methods of Using Geoinformation
```



(a)

(b)

Figure 8: A caption of figure of two parts, (a) and (b).

```
Technologies in Mining
Engineers' Training},
year = {2018},
publisher = {Cambridge Scholars
Publishing},
address = {Newcastle upon Tyne},
note={\url{https://tinyurl.com/ye27sf7d}}
}
```

- Book in series

```
@book{Dirac:1958,
  author = {P. A. M. Dirac},
  title = {The Principles
of Quantum Mechanics},
series = {The International Series
of Monographs on Physics},
number = {27},
```



Figure 9: Mrs. F. S. Bliven in auto (circa 1908).

```

edition = {4},
publisher = {Clarendon Press},
address = {Oxford},
year = {1967}
}

```

- **Book chapter or some part of book**

```

@inbook{Humboldt:chl,
publisher = {Cambridge University Press},
year = {1999},
title = {{On Language: On the
Diversity of Human Language
Construction and its
Influence on the Mental
Development of the Human
Species}},
series={{Cambridge Texts in the
History of Philosophy}},
author = {Wilhelm {Von Humboldt}},
editor={Michael Losonsky},
chapter={1},
pages={11-22},
}

```

(You can also cite any part of book using
`\cite[pp.~110--113]{Dirac:1958}` or
`\cite[chapter 4, pp.~98--105]{Dirac:1958}`).

- **Authored chapter**

```

@Incollection{Shramko2016,
author="Shramko, Yaroslav",
editor="Bimb{\`o}, Katalin",

```

```

title={{Truth, Falsehood, Information
and Beyond: The American Plan
Generalized}},
bookTitle={{J. Michael Dunn on
Information Based Logics}},

```

```

year="2016",
publisher="Springer International
Publishing",
address="Cham",
pages="191--212",
isbn="978-3-319-29300-4",
note={\url
"https://doi.org/10.1007/978-3-319-29300-4_11"},
}

```

- **Article in conference proceedings**

```

@incollection{Tkachuk2021,
author="Tkachuk, Viktoriia and
Yechkalo, Yuliia and
Semerikov, Serhiy and
Kislova, Maria and
Hladyr, Yana",
editor="Bollin, Andreas and Ermolayev,
Vadim and Mayr, Heinrich C. and
Nikitchenko, Mykola and
Spivakovsky, Aleksander and
Tkachuk, Mykola and Yakovyna,
Vitaliy and Zholtkevych, Grygoriy",
title="{Using Mobile ICT for Online
Learning During COVID-19 Lockdown}",
note={\url
"https://doi.org/10.1007/978-3-030-77592-6_3}},
}

```

```

booktitle="Information and Communication
          Technologies in Education,
          Research, and Industrial
          Applications",
year="2021",
publisher="Springer
          International Publishing",
address="Cham",
pages="46--67",
isbn="978-3-030-77592-6"
}
or @conference or @inproceedings.

```

5.2.3 A Case of Non-Latin Sources

When non-Latin alphabet publication cited, the title of the publication (e.g., book or article) in the original language need to be both transliterated and translated in English. Other bibliographic components (including authors, publisher, address and journal name) are transliterated only (Semerikov et al., 2000):

```

@article{IA2000,
  author = {Semerikov, S. O. and Soloviov, V. M.
            and Teplytskyi, I. O.},
  year=2000,
  title={Instrumentalne zabezpechennia kursu
         kompiuternoho modeliuвання
         [{I}nstrumental support of the
         course of computer modeling]},
  journal= {Kompiuter u shkoli i simi},
  number=4,
  pages={28-31},
  note={\url{https://lib.iitta.gov.ua/704129/}}
}

```

5.2.4 The ‘apalike’ Bibliography Style in the Web Epoch

The ‘apalike’ bibliography style has been around more or less unchanged since 1988. Back then, web pages didn’t exist yet – at least not as items that might be cited in bibliographies. The entry type @misc thus doesn’t recognize, and hence blissfully ignores, fields named url, doi, etc.

A workaround involves encase the URL string in the note (howpublished) field in a \url{...} wrapper.

Separately, you should also encase the contents of the author and title fields in pairs of curly braces. This prevents BibTeX from misinterpreting the author as a person and lowercasing the words in the title field:

```

@misc{ANCS_CS-SSH,
  author={{Academy of Cognitive
            and Natural Sciences}},
  title={{ACNS Conference Series:
         Social Sciences and Humanities}},
  year={2022},
  note={\url{https://acnsci.org/cs-ssh/}},
}

```

DOI persistent links should be indicated the same way:

```

note={\url
      {https://doi.org/10.55056/cs-ssh/1/01001}}
}

```

Article numbers should be indicated as pages.

Complete list of entry types which allowed by ‘apalike’ bibliography style:

```

article
book
booklet
inbook
incollection
inproceedings (conference)
manual
mastersthesis
misc
phdthesis
proceedings
techreport
unpublished

```

Complete list of entries which allowed by ‘apalike’ bibliography style:

```

address
author
booktitle
chapter
edition
editor
howpublished
institution
journal
key
note
number
organization
pages
publisher
school
series
title
type
volume
year

```

Any other entry types and entries will be ignored.

5.3 Best Practices: Export Citations into a BibTeX File

A good way to make your bibliography is to exclude manual creation bibliography items whenever it possible. We strongly recommend to use the “Cite” (export) facilities to BibTeX which available in the most

of OJS installations (figure 10a), ACM Digital Library (figure 10b), Scopus (figure 10c), IEEE Xplore (figure 10d), ScienceDirect (figure 10e), Web of Science (figure 10f) etc.

5.4 Some Examples

A paginated journal article (Kiv and Soloviev, 1979), an enumerated journal article (Kavetsky et al., 2021; Semerikov et al., 2021a), a monograph (whole book) (Morkun et al., 2018), a monograph/whole book in a series (Harel, 1979), a divisible-book such as an anthology or compilation (Editor, 2007) followed by the same example, however we only output the series if the volume number is given (Editor, 2008) (so series should not be present since it has no volume number), a chapter in a divisible book (Spector, 1990), a chapter in a divisible book in a series (Douglass et al., 1998), a multi-volume work as book (Knuth, 1997), an article in a proceedings (of a conference, symposium, workshop for example) (paginated proceedings article) (Andler, 1979; Makhachashvili and Semenist, 2021), a proceedings article with all possible elements (Smith, 2010), an informally published work (Harel, 1978), a doctoral dissertation (Clarkson, 1985), a master's thesis: (Anisi, 2003), an online document / world wide web resource (Thornburg, 2001; Ablamowicz and Fauser, 2007; PokerEdge.Com, 2006), a video game (Case 1) (Obama, 2008) and (Case 2) (Novak, 2003) and (Lee, 2005) and (Case 3) a patent (Scientist, 2009), work accepted for publication (Rous, 2023). Multi-volume works as books (Hörmander, 1985b) and (Hörmander, 1985a). A couple of citations with DOIs: (IEEE, 2004; Kirschmer and Voight, 2010). Online citations: (TUG, 2017; Thornburg, 2001; R Core Team, 2019; Anzaroot and McCallum, 2013).

A lot of citations with `\cite:` (Shramko and Rossman, 2002; Zhaldak, 1964; Kiv et al., 1995; Shramko and Wansing, 2012; Descartes, 2014; Plato, 2004; Teplytskyi, 2000; Zhaldak, 2021; Shramko, 1999; Osadchyi et al., 2017; Puu and Sushko, 2006; Russell, 1947; Koryakova and Epimakhov, 2007; Semerikov et al., 2021b; Trius et al., 2004; Konoplya, 2002; Morkun et al., 2014; Vlasenko et al., 2021; Sapsin and Soloviev, 2009; Kalitkin and Kuz'mina, 1975; Haveman and Gualtieri, 2016; Kerley, 2003; Rutberg et al., 2004; Sutherland, 1968; Von Humboldt, 1999; Shramko, 2016; Dirac, 1967; Tkachuk et al., 2021; Goncharov et al., 1966).

ACKNOWLEDGEMENTS

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 acknowledgement section, which is placed just before the reference section without numbering.

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2019 for making the long-awaited
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  year={2006},
  volume={53},
  number={2},
  pages={304-313},
  doi={10.1109/TED.2005.862236}}
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Abstract: Physical mechanisms of V/sub t/ shift in NROM (micro FLASH) memory transistors microFLASH memory is the trademark of Tower Semiconductor Ltd. microFLASH is based on the NROM technology. NROM is the trademark of Saifun Semiconductor Ltd. after cycling are considered. Computer simulation is combined with analytical description of kinetics of "fast" V/sub t/ shift after cycling. The distinguishing feature of the developed model is its consistency with the positions of trapped charges obtained from charge pumping measurements and account for Coulomb correlation effects in the dynamics of injected charges in ONO. Accumulation of residual electrons and holes in the injection region and electrons trapped far from the drain is

(d)

Decision Making: Algorithms and Abilities

Nadia Kabachi¹, Arnold Kiv^{2,3}

¹ IESIEA-Recherche, France
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THE CLOUD TECHNOLOGIES OF LEARNING: ORIGIN

By: Markov, OI (Markov, Oksana N.)¹, Semerikov, SO (Semerikov, Serhiy O.)², Struk, AV (Struk, Andrii M.)³

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Abstract:
 The research goal is to investigate the evolution of the concept of utility computing in the works of foreign researchers in the years 1959-1965. First the A. O. Maier's results and expanded overview of the D. F. Parkhill's results on the concept of computer (information) utility were introduced in the domestic scientific circulation. Functionally identity of the computer utility and cloud computing concepts was proved, as well as refined the primary sources of cloud service models. There was proposed the interpretation of the "cloud technologies of learning" concept. Consistency of the development of cloud technologies over the past 55 years and their relationship with the development of ICT in general was concluded. The research results make it possible to determine the prospects of the development of cloud computing in general and cloud technologies of learning in particular.

Keywords:
 Author Keywords: computer utility; utility computing; cloud computing; cloud technologies of learning

(f)

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APPENDIX

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