LaTeX

Part I

2024-2025

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Markup Languages

Markup Languages
HTML

- HyperText Markup Language (HTML)
- Standard Markup Language for creating web pages and web applications
- Semantic Elements (tags) : div, ul, h1, h2, p, a, …

```html
<html>
  <head>
    <title>Example Page</title>
  </head>
  <body>
    <h1>Welcome to my website</h1>
    <p>This is a paragraph of text.</p>
    <a href="https://www.example.com">Visit Example</a>
  </body>
</html>
```

Markup Languages
XML

- eXtensible Markup Language (XML)
- XML is a versatile markup language used for defining custom data formats.
- Commonly used in data interchange between different systems and for configuration files.

```xml
<person>
  <name>John Doe</name>
  <age>30</age>
  <email>john@example.com</email>
</person>
```

Markup Languages
LaTeX

- Typesetting system often used for creating documents with complex formatting, such as academic papers, theses, books, etc.

- Uses markup commands to define document structure and formatting

```
1  \documentclass{article}
2  \begin{document}
3  \section{Introduction}
4  This is a \emph{LaTeX} document.
5  \end{document}
```

LaTeX Document

LaTeX Document Structure

Overview

Includes commands that set the overall document settings and configurations

- Metadata (title, author, date, …)
- Document's structure, layout, and any custom formatting you want to apply
- Document class
- Packages to extend LaTeX's functionality

LaTeX Document Structure

Creating a blank project

```latex
\documentclass{article}
\usepackage{graphicx} % Required for inserting images

\title{Title}
\author{Nasser-Eddine Monir }
\date{September 2023}

\begin{document}

\maketitle

\section{Introduction}

\end{document}
```

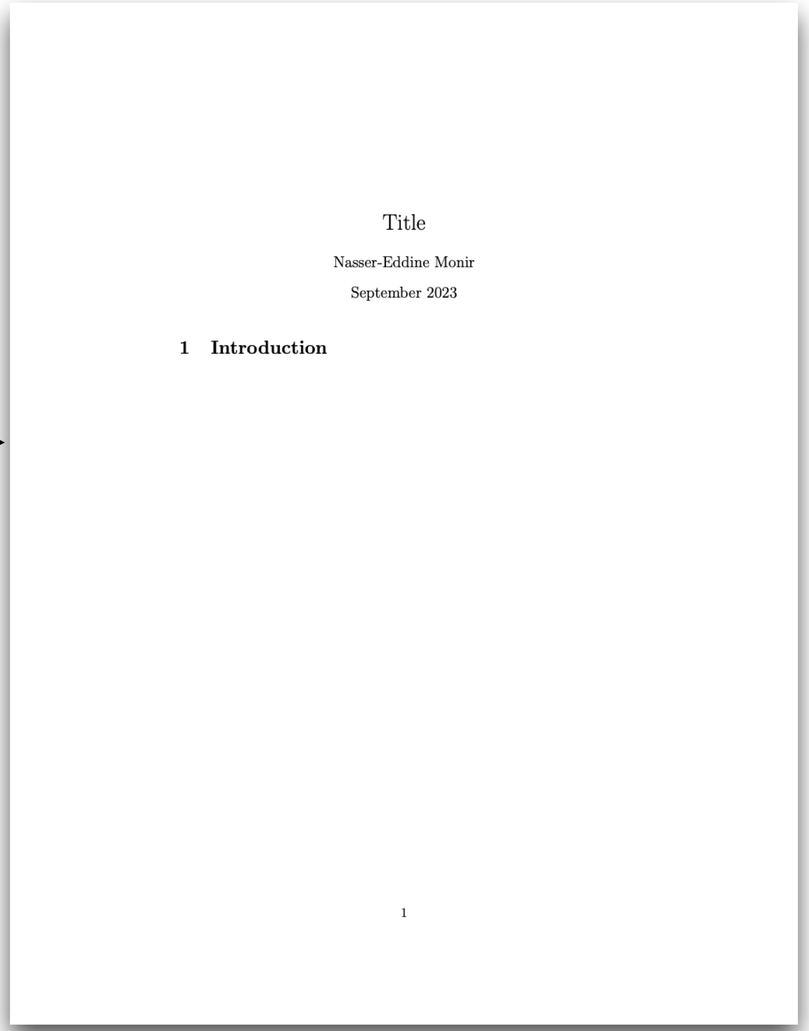
Preamble

Document

LaTeX Document Structure

Creating a blank project

```latex
\documentclass{article}
\usepackage{graphicx} % Required for inserting images

\title{Title}
\author{Nasser-Eddine Monir }
\date{September 2023}

\begin{document}

\maketitle

\section{Introduction}

\end{document}
```

Document Classes

Definition & Examples

- How to specify the document class ?

```
\documentclass{<type>}
```

- Types :
  - Article `\documentclass{article}`
  - Report `\documentclass{report}`
  - Book `\documentclass{book}`
  - Etc.

Packages

How to include a package ?

```
\usepackage{<package-name>} % optional : comment explaining the purpose the package
```

Packages
Examples

```
\usepackage{<package-name>} % optional : comment explaining the purpose the package
```

```
\usepackage{graphicx} % Required for inserting images
\usepackage{geometry} % Used for customizing page layout
\usepackage{fancyhdr} % Used for customizing headers and footers
\usepackage{tikz}     % Used for creating graphics and diagrams
```

Text formatting styles

Examples

Document

```
This is \textbf{bold text}.
This is \textit{italic text}.
This is \textsc{small caps text}.
This is \texttt{typewriter text}.
This is \underline{underlined text}.
This is some \emph{emphasized text in normal text}.
```

Display

This is **bold text**.
This is *italic text*.
This is SMALL CAPS TEXT.
This is `typewriter text`.
This is underlined text.
This is some *emphasized text in normal text*.

Lists

Description

Document

```
\begin{description}
  \item[Linux] An open-source Unix-like operating system kernel.
  \item[Ubuntu] A popular Linux distribution based on Debian.
  \item[GNOME] A desktop environment for Unix-like operating systems.
\end{description}
```

Display

Linux An open-source Unix-like operating system kernel.

Ubuntu A popular Linux distribution based on Debian.

GNOME A desktop environment for Unix-like operating systems.

Lists

Itemize

Document

```
\begin{itemize}
  \item Item 1
  \item Item 2
  \item Item 3
\end{itemize}
```

Display

- Item 1
- Item 2
- Item 3

Lists

Enumerate

Document

```
\begin{enumerate}
  \item First item
  \item Second item
  \begin{enumerate}
    \item Subitem 1
    \item Subitem 2
  \end{enumerate}
  \item Third item
\end{enumerate}
```

Display

1. First item
2. Second item
   (a) Subitem 1
   (b) Subitem 2
3. Third item

Mathematical Formulas

Inline Formula

Document

```
The equation $c^2 = a^2 + b^2$ is an inline formula.
```

Display

The equation $c^2 = a^2 + b^2$ is an inline formula.

Mathematical Formulas

Display Formula

Document

```
\begin{equation}
E = mc^2 \label{eq:einstein}
\end{equation}

As shown in Equation \ref{eq:einstein}, energy is equal to mass times
the speed of light squared.
```

Display

$$E = mc^2 \tag{1}$$

As shown in Equation 1, energy is equal to mass times the speed of light squared.

Tables

Performance Comparison Table

Preamble

```
\usepackage{multirow}
\usepackage{booktabs}
```

Document

```
\begin{table}[ht]
\centering
\begin{tabular}{lccc}
\toprule
\textbf{Model} & \textbf{SNR (dB)} & \textbf{SAR (dB)} & \textbf{SDR (dB)} \\
\midrule
Model A & 15.2 & 12.5 & 18.3 \\
Model B & 16.5 & 13.7 & 19.1 \\
Model C & 14.8 & 12.2 & 17.9 \\
\bottomrule
\end{tabular}
\caption{Performance Comparison of Speech Enhancement Models}
\label{tab:model-comparison}
\end{table}
```

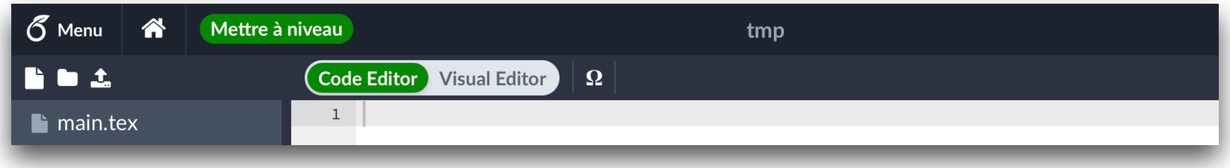
Display

Model	**SNR (dB)**	**SAR (dB)**	**SDR (dB)**
Model A	15.2	12.5	18.3
Model B	16.5	13.7	19.1
Model C	14.8	12.2	17.9

Table 1: Performance Comparison of Speech Enhancement Models

Images

Step 1 : Import the image



Images

Step 2 : Include the image to the document

Document

```
\begin{figure}[ht]
  \centering
  \includegraphics[width=0.6\textwidth]{Overleaf_Logo.png}
  \caption{An example image.}
  \label{fig:example}
\end{figure}
```

Display

Figure 1: An example image.

References

BibTeX Entry Examples

@article :

- Required fields: author, title, journal, year.
- Optional fields: volume, number, pages, month, note.

@book :

- Required fields: author or editor, title, publisher, year.
- Optional fields: volume or number, series, address, edition, month.

@thesis :

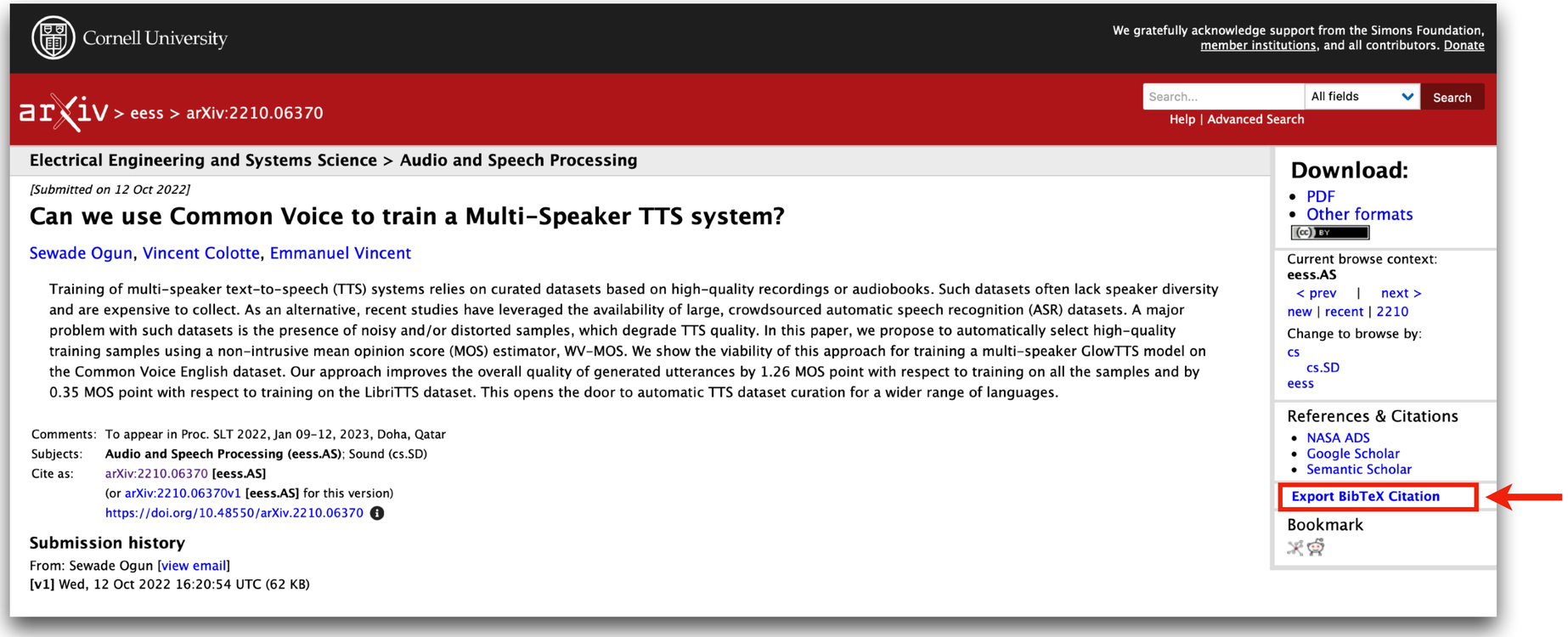
- Required fields: author, title, school, year.
- Optional fields: type, address, month, note.

@misc :

- Required fields: author, title, howpublished, year.
- Optional fields: month, note.

References

Download a BibTeX entry



References

Citation & Reference Section

references.bib

```
@misc{ogun2022use,
      title={Can we use Common Voice to train a Multi-Speaker TTS system?},
      author={Sewade Ogun and Vincent Colotte and Emmanuel Vincent},
      year={2022},
      eprint={2210.06370},
      archivePrefix={arXiv},
      primaryClass={eess.AS}
}
```

main.tex | Document

```
In their recent paper, Ogun et al. proposed a method for training a Multi-Speaker TTS system
using Common Voice \cite{ogun2022use}.

\bibliographystyle{plain}
\bibliography{references}
```

Display

In their recent paper, Ogun et al. proposed a method for training a Multi-Speaker TTS system using Common Voice [1].

References

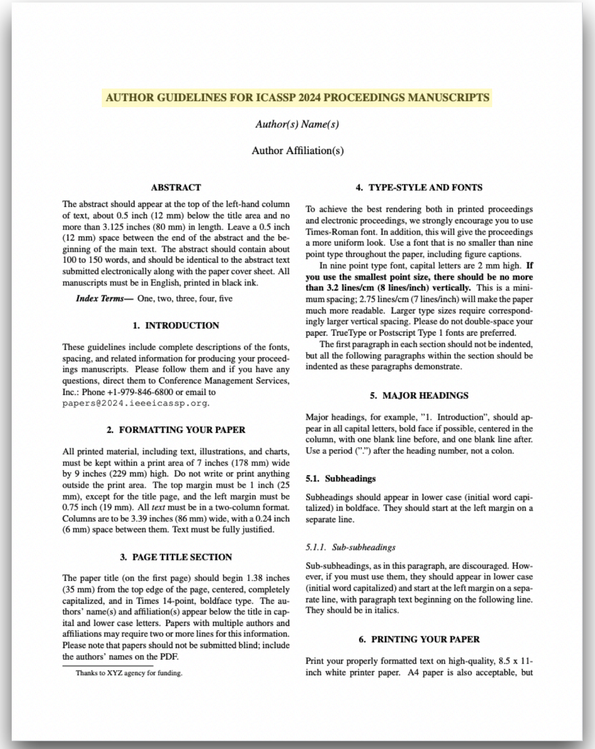
[1] Sewade Ogun, Vincent Colotte, and Emmanuel Vincent. Can we use common voice to train a multi-speaker tts system?, 2022.

Scientific Papers

Guidelines

Examples

ICASSP2024



AUTHOR GUIDELINES FOR ICASSP 2024 PROCEEDINGS MANUSCRIPTS

Author(s) Name(s)

Author Affiliation(s)

ABSTRACT

The abstract should appear at the top of the left-hand column of text, about 0.5 inch (12 mm) below the title area and no more than 3.125 inches (80 mm) in length. Leave a 0.5 inch (12 mm) space between the end of the abstract and the beginning of the main text. The abstract should contain about 100 to 150 words, and should be identical to the abstract text submitted electronically along with the paper cover sheet. All manuscripts must be in English, printed in black ink.

***Index Terms*—** One, two, three, four, five

1. INTRODUCTION

These guidelines include complete descriptions of the fonts, spacing, and related information for producing your proceedings manuscripts. Please follow them and if you have any questions, direct them to Conference Management Services, Inc.: Phone +1-979-846-6800 or email to papers@2024.ieeeicassp.org.

2. FORMATTING YOUR PAPER

All printed material, including text, illustrations, and charts, must be kept within a print area of 7 inches (178 mm) wide by 9 inches (229 mm) high. Do not write or print anything outside the print area. The top margin must be 1 inch (25 mm), except for the title page, and the left margin must be 0.75 inch (19 mm). All *text* must be in a two-column format. Columns are to be 3.39 inches (86 mm) wide, with a 0.24 inch (6 mm) space between them. Text must be fully justified.

3. PAGE TITLE SECTION

The paper title (on the first page) should begin 1.38 inches (35 mm) from the top edge of the page, centered, completely capitalized, and in Times 14-point, boldface type. The authors' name(s) and affiliation(s) appear below the title in capital and lower case letters. Papers with multiple authors and affiliations may require two or more lines for this information. Please note that papers should not be submitted blind; include the authors' names on the PDF.

Thanks to XYZ agency for funding.

4. TYPE-STYLE AND FONTS

To achieve the best rendering both in printed proceedings and electronic proceedings, we strongly encourage you to use Times-Roman font. In addition, this will give the proceedings a more uniform look. Use a font that is no smaller than nine point type throughout the paper, including figure captions.

In nine point type font, capital letters are 2 mm high. **If you use the smallest point size, there should be no more than 3.2 lines/cm (8 lines/inch) vertically.** This is a minimum spacing; 2.75 lines/cm (7 lines/inch) will make the paper much more readable. Larger type sizes require correspondingly larger vertical spacing. Please do not double-space your paper. TrueType or Postscript Type 1 fonts are preferred.

The first paragraph in each section should not be indented, but all the following paragraphs within the section should be indented as these paragraphs demonstrate.

5. MAJOR HEADINGS

Major headings, for example, "1. Introduction", should appear in all capital letters, bold face if possible, centered in the column, with one blank line before, and one blank line after. Use a period (".") after the heading number, not a colon.

5.1. Subheadings

Subheadings should appear in lower case (initial word capitalized) in boldface. They should start at the left margin on a separate line.

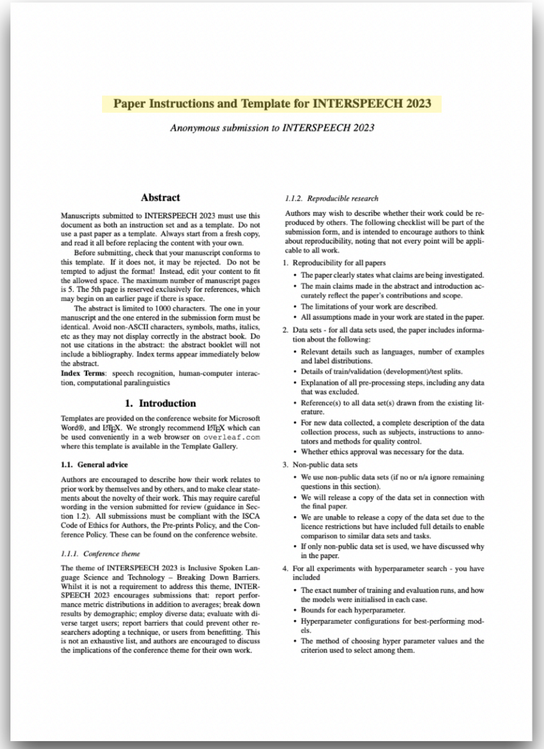
5.1.1. Sub-subheadings

Sub-subheadings, as in this paragraph, are discouraged. However, if you must use them, they should appear in lower case (initial word capitalized) and start at the left margin on a separate line, with paragraph text beginning on the following line. They should be in italics.

6. PRINTING YOUR PAPER

Print your properly formatted text on high-quality, 8.5 x 11-inch white printer paper. A4 paper is also acceptable, but

Interspeech2024



Paper Instructions and Template for INTERSPEECH 2023

Anonymous submission to INTERSPEECH 2023

Abstract

Manuscripts submitted to INTERSPEECH 2023 must use this document as both an instruction set and as a template. Do not use a past paper as a template. Always start from a fresh copy, and read it all before replacing the content with your own.

Before submitting, check that your manuscript conforms to this template. If it does not, it may be rejected. Do not be tempted to adjust the format! Instead, edit your content to fit the allowed space. The maximum number of manuscript pages is 5. The 5th page is reserved exclusively for references, which may begin on an earlier page if there is space.

The abstract is limited to 1000 characters. The one in your manuscript and the one entered in the submission form must be identical. Avoid non-ASCII characters, symbols, maths, italics, etc as they may not display correctly in the abstract book. Do not use citations in the abstract: the abstract booklet will not include a bibliography. Index terms appear immediately below the abstract.

Index Terms: speech recognition, human-computer interaction, computational paralinguistics

1. Introduction

Templates are provided on the conference website for Microsoft Word®, and LaTeX. We strongly recommend LaTeX which can be used conveniently in a web browser on overleaf.com where this template is available in the Template Gallery.

1.1. General advice

Authors are encouraged to describe how their work relates to prior work by themselves and by others, and to make clear statements about the novelty of their work. This may require careful wording in the version submitted for review (guidance in Section 1.2). All submissions must be compliant with the ISCA Code of Ethics for Authors, the Pre-prints Policy, and the Conference Policy. These can be found on the conference website.

1.1.1. Conference theme

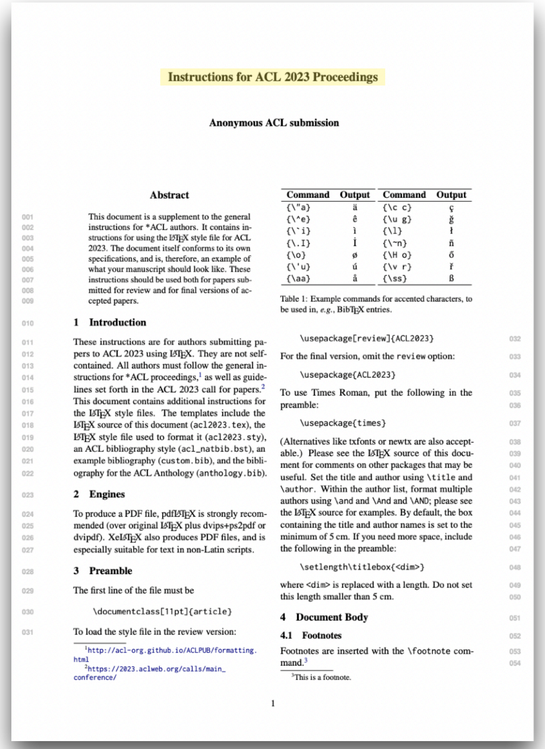
The theme of INTERSPEECH 2023 is Inclusive Spoken Language Science and Technology – Breaking Down Barriers. Whilst it is not a requirement to address this theme, INTERSPEECH 2023 encourages submissions that: report performance metric distributions in addition to averages; break down results by demographic; employ diverse data; evaluate with diverse target users; report barriers that could prevent other researchers adopting a technique, or users from benefiting. This is not an exhaustive list, and authors are encouraged to discuss the implications of the conference theme for their own work.

1.1.2. Reproducible research

Authors may wish to describe whether their work could be reproduced by others. The following checklist will be part of the submission form, and is intended to encourage authors to think about reproducibility, noting that not every point will be applicable to all work.

1. Reproducibility for all papers
   - The paper clearly states what claims are being investigated.
   - The main claims made in the abstract and introduction accurately reflect the paper's contributions and scope.
   - The limitations of your work are described.
   - All assumptions made in your work are stated in the paper.
2. Data sets – for all data sets used, the paper includes information about the following:
   - Relevant details such as languages, number of examples and label distributions.
   - Details of train/validation (development)/test splits.
   - Explanation of all pre-processing steps, including any data that was excluded.
   - Reference(s) to all data set(s) drawn from the existing literature.
   - For new data collected, a complete description of the data collection process, such as subjects, instructions to annotators and methods for quality control.
   - Whether ethics approval was necessary for the data.
3. Non-public data sets
   - We use non-public data sets (if no or n/a ignore remaining questions in this section).
   - We will release a copy of the data set in connection with the final paper.
   - We are unable to release a copy of the data set due to the licence restrictions but have included full details to enable comparison to similar data sets and tasks.
   - If only non-public data set is used, we have discussed why in the paper.
4. For all experiments with hyperparameter search - you have included
   - The exact number of training and evaluation runs, and how the models were initialised in each case.
   - Bounds for each hyperparameter.
   - Hyperparameter configurations for best-performing models.
   - The method of choosing hyper parameter values and the criterion used to select among them.

ACL2024



Instructions for ACL 2023 Proceedings

Anonymous ACL submission

Abstract

This document is a supplement to the general instructions for *ACL authors. It contains instructions for using the LaTeX style file for ACL 2023. The document itself conforms to its own specifications, and is, therefore, an example of what your manuscript should look like. These instructions should be used both for papers submitted for review and for final versions of accepted papers.

1 Introduction

These instructions are for authors submitting papers to ACL 2023 using LaTeX. They are not self-contained. All authors must follow the general instructions for *ACL proceedings,[1] as well as guidelines set forth in the ACL 2023 call for papers.[2] This document contains additional instructions for the LaTeX style files. The templates include the LaTeX source of this document (acl2023.tex), the LaTeX style file used to format it (acl2023.sty), an ACL bibliography style (acl_natbib.bst), an example bibliography (custom.bib), and the bibliography for the ACL Anthology (anthology.bib).

2 Engines

To produce a PDF file, pdfLaTeX is strongly recommended (over original LaTeX plus dvips+ps2pdf or dvipdf). XeLaTeX also produces PDF files, and is especially suitable for text in non-Latin scripts.

3 Preamble

The first line of the file must be

```
\documentclass[11pt]{article}
```

To load the style file in the review version:

[1] http://acl-org.github.io/ACLPUB/formatting.html

[2] https://2023.aclweb.org/calls/main_conference/

Command	Output	Command	Output
{\"a}	ä	{\c c}	ç
{\^e}	ê	{\u g}	ğ
{\`i}	ì	{\l}	ł
{\.I}	İ	{\~n}	ñ
{\o}	ø	{\H o}	ő
{\'u}	ú	{\v r}	ř
{\aa}	å	{\ss}	ß

Table 1: Example commands for accented characters, to be used in, *e.g.*, BibTeX entries.

```
\usepackage[review]{ACL2023}
```

For the final version, omit the review option:

```
\usepackage{ACL2023}
```

To use Times Roman, put the following in the preamble:

```
\usepackage{times}
```

(Alternatives like txfonts or newtx are also acceptable.) Please see the LaTeX source of this document for comments on other packages that may be useful. Set the title and author using \title and \author. Within the author list, format multiple authors using \and and \And and \AND; please see the LaTeX source for examples. By default, the box containing the title and author names is set to the minimum of 5 cm. If you need more space, include the following in the preamble:

```
\setlength\titlebox{<dim>}
```

where <dim> is replaced with a length. Do not set this length smaller than 5 cm.

4 Document Body

4.1 Footnotes

Footnotes are inserted with the \footnote command.[3]

[3] This is a footnote.

1

UNIVERSITÉ DE LORRAINE

Institut des sciences du Digital Management & Cognition

COMPOSANTE DE L'UNIVERSITÉ DE LORRAINE