Paper Template for INTERSPEECH

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Abstract

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The maximum number of pages is 5. The 5th page may be used exclusively for references. The references should begin on an earlier page immediately after the Acknowledgements section, and continue onto the 5th page. If no space is available on an earlier page, then the references may begin on the 5th page.

Index terms should be included as shown below.

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

# Introduction

This template can be found on the conference website. Templates are provided for Microsoft Word®, and LaTeX. However, we highly recommend using LaTeX when preparing your submission. Information for full paper submission is available on the conference website.

# Page layout and style

Authors should observe the following rules for page layout. A highly recommended way to meet these requirements is to use a given template (Microsoft Word® or LaTeX) and check details against the corresponding example PDF file.

## Basic layout features

* Proceedings will be printed in DIN A4 format. Authors must submit their papers in DIN A4 format.
* Two columns are used except for the title section and for large figures that may need a full page width.
* Left and right margin are 20 mm each.
* Column width is 80 mm.
* Spacing between columns is 10 mm.
* Top margin is 25 mm (except for the first page which is 30 mm to the title top).
* Bottom margin is 35 mm.
* Text height (without headers and footers) is maximum 235 mm.
* Headers and footers must be left empty.
* Check indentations and spacings by comparing to this example file (in PDF).

### Headings

Section headings are centered in boldface with the first word capitalized and the rest of the heading in lower case. Sub- headings appear like major headings, except they start at the left margin in the column. Sub-sub-headings appear like sub-headings, except they are in italics and not boldface. See the examples in this file. No more than 3 levels of headings should be used.

## Text font

Times or Times Roman font is used for the main text. Font size in the main text must be 9 points, and in the References section 8 points. Other font types may be used if needed for special purposes. It is VERY IMPORTANT that while making the final PDF file, you embed all used fonts!

LaTeX users: users should use Adobe Type 1 fonts such as Times or Times Roman. These are used automatically by the INTERSPEECH\_v2.sty style file. Authors must not use Type 3 (bitmap) fonts.

## Figures

All figures must be centered on the column (or page, if the figure spans both columns). Figure captions should follow each figure and have the format given in Figure 1.

Figures should be preferably line drawings. If they contain gray levels or colors, they should be checked to print well on a high-quality non-color laser printer.

Graphics (i. e., illustrations, figures) must not use stipple fill patterns because they will not reproduce properly in Adobe PDF. Please use only SOLID FILL COLORS.

Figures which span 2 columns (i. e., occupy full page width) must be placed at the top or bottom of the page.

## Tables

An example of a table is shown in Table 1. The caption text must be above the table.

Table 1: *This is an example of a table.*

|  |  |
| --- | --- |
| Ratio | Decibels |
| 1/1 | 0 |
| 2/1 | ≈ 6 |
| 3.16 | 10 |
| 1/10 | 20 |
| 10/1 | -20 |
| 100/1 | 40 |
| 1000/1 | 60 |

Figure 1: *Schematic diagram of speech production.*

## Equations

Equations should be placed on separate lines and numbered. Examples of equations are given below. Particularly,

 (1)

where  is a special warping function

 (2)

A residue theorem states that

 (3)

Applying (3) to (1), it is quite straightforward to see that

 (4)

Finally we have proven the secret theorem of all speech sciences. No more math is needed to show how useful the result is!

## Information for Word users only

For ease of formatting, please use the styles listed in Table 2. The styles are defined in this template file and are shown in the order in which they would be used when writing a paper.

When the heading styles in Table 2 are used, section numbers are no longer required to be typed in because they will be automatically numbered by Word. Similarly, reference items will be automatically numbered by Word when the “Reference” style is used.

Table 2: *Main predefined styles in Word.*

|  |  |
| --- | --- |
| Style Name | Entities in a Paper |
| Title | Title |
| Author | Author name |
| Affiliation | Author affiliation |
| Email | Email address |
| AbstractHeading | Abstract section heading |
| Body Text | First paragraph in abstract |
| Body Text Next | Following paragraphs in abstract |
| Index | Index terms |
| 1. Heading 1 | 1st level section heading |
| 1.1 Heading 2 | 2nd level section heading |
| 1.1.1 Heading 3 | 3rd level section heading |
| Body Text | First paragraph in section |
| Body Text Next | Following paragraphs in section |
| Figure Caption | Figure caption |
| Table Caption | Table caption |
| Equation | Equations |
| • List Bullet | Bulleted lists |
| [1] Reference | References |

If your Word document contains equations, you must not save your Word document from “.docx” to “.doc” because when doing so, Word will convert all equations to images of unacceptably low resolution.

## Hyperlinks

For technical reasons, the proceedings editor will strip all active links from the papers during processing. Hyperlinks can be included in your paper, if written in full, e. g. “http://www.foo.com/index.html”. The link text must be all black. Please make sure that they present no problems in printing to paper.

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Your multimedia files must be submitted in a single ZIP file for each separate paper. Within the ZIP file you can use folders and filenames to help organize the multimedia files. In the ZIP file you should include a TEXT or HTML index file which describes the purpose and significance of each multimedia file. From within the manuscript, refer to a multimedia illustration by its filename. Use short file names without blanks for clarity.

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Users of the proceedings who wish to access your multimedia files will click the link to the ZIP file which will then be opened by the operating system of their computer. Access to the contents of the ZIP file will be governed entirely by the operating system of the user's computer.

## Page Numbering

Page numbers will be added later to the document electro­nically. *Don't make any footers or headers*!

## References

The reference format is the standard IEEE one. References should be numbered in order of appearance, for example [1], [2], [3, pp. 417–422], and [4].

## Abstract

The total length of the abstract is limited to 200 words. The abstract included in your paper and the one you enter during web-based submission must be identical. Avoid non-ASCII characters or symbols as they may not display correctly in the abstract book.

## Author affiliation

Please list country names as part of the affiliation for each country.

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# Discussion

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# Conclusions

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# Acknowledgements

The ISCA Board would like to thank the organizing committees of the past INTERSPEECH conferences for their help and for kindly providing the template files.

# References

1. S. B. Davis and P. Mermelstein, “Comparison of parametric representation for monosyllabic word recognition in con­ti­nuous­ly spoken sentences,” *IEEE Transactions on Acoustics, Speech and Signal Processing*, vol. 28, no. 4, pp. 357–366, 1980.
2. L. R. Rabiner, “A tutorial on hidden Markov models and selec­ted applications in speech recognition,” *Proceedings of the IEEE*, vol. 77, no. 2, pp. 257–286, 1989.
3. T. Hastie, R. Tibshirani, and J. Friedman, *The Elements of Statis­tical Learning – Data Mining, Inference, and Prediction*. New York: Springer, 2009.
4. F. Lastname1, F. Lastname2, and F. Lastname3, “Title of your INTERSPEECH 2017 publication,” in *INTERSPEECH 2017 – 18th Annual Conference of the International Speech Communication Association, August 20*–*24, Stockholm, Sweden, Proceedings*, 2017, pp. 100–104