An Example of the 2019 IEEE Aerospace Conference Paper Format Using a LATEX Environment

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Abstract— This paper serves as an example for the use of the LATEX class file for the 2019 Aerospace Conference. The LATEX class file for the 2019 conference has been modified from that of prior year conferences in order to fix minor bugs and to conform to new formatting requirements. Within the class file there are some customized commands that are illustrated in this paper. They are: tableofcontents, acknowledgments, thebiography. There are also comments sprinkled throughout the tex file to illustrate the usage of the class file. If you have difficulties or errors using this class file, please contact me at the e-mail address in the author's information slot. Some of the content below is filler designed to show you how a properly formatted paper should look. Read the official "Author's Instructions for the 2019 IEEE Aerospace Conference" to find the full description of the paper formatting requirements.

TABLE OF CONTENTS

1. Introduction	1
2. PAPER ORGANIZATION	1
3. MANUSCRIPT STYLE	2
4. PAPER SUBMISSION	2
5. Presentation at the Conference	
6. BEST PAPER AWARD AND PUBLICATION	3
7. SUMMARY	
APPENDICES	
A. More Information	
B. YET MORE INFORMATION	
ACKNOWLEDGMENTS	
REFERENCES	
BIOGRAPHY	
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1. Introduction

The annual IEEE Aerospace Conference is a venue for engineers and scientists to present their work to one another. Please submit a paper only if you or a coauthor are committed to attend and present it personally.

An IEEE Aerospace Conference paper is comprised of standard parts described in Section 2 of this paper. Section 3 briefly describes the manuscript style and Section 4 the submission deadlines and procedures. Section 5 discusses presentation of papers at the conference. The Best Paper Award and paper publication are described in Section 6. Section 7 provides a summary.

Proper formatting of your paper as specified in this document

contributes to the successful production of these documents. All papers are also published in PDF format on the *IEEE Xplore* web-based system, shortly after the conference concludes.

A double-column format is required, although figures, tables, and equations may be full-page width. Specifications are listed for typeface, type size, headings, column separation, margins, and other style parameters.

Where this document is silent on a formatting question, it is because it is not important or is the writer's option. When in doubt make a choice that makes your document most readable. English is the official language of the conference, and the official page size is 8.5 x 11 inches—do not use A4 paper size.

2. PAPER ORGANIZATION

IEEE papers consist of a minimum of nine parts.

Title

The title should indicate the subject of the paper as briefly as possible. The maximum length, including spaces, is 100 characters.

Author(s)

Names of all authors, their affiliations, postal addresses, phone numbers, and e-mail addresses should follow the title, centered on the full width of the page. Do not include titles or degrees except for military rank. Multiple authors may be listed two or three across and as deep as needed. Large numbers of authors should be grouped by address.

Abstract

An abstract of 250 to 500 words should concisely describe the work being reported, its methodology, principal results and significance.

Table of Contents

Major headings and their page numbers are listed in the Table of Contents.

Introduction

The introduction provides background information, such as previous work, and describes how the paper is organized.

Body

The body describes the work in detail and discusses its application. The body should be organized into logical sec-

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tions with headings and subheadings and be illustrated with figures and tables. Subsidiary information can be relegated to footnotes.

Conclusions

Conclusions should clearly state principal results of the work, its significance, limitations, advantages, and applications. Recommendations for further work are also encouraged.

References

List and number all bibliographical references at the end of the paper.

Biography

Provide a short biography for each author, which can include title, fields of expertise, work experience, education, and relevant personal information. Also include a 1.25 inch wide x 1.5 inch high headshot (at 300 dpi) of each author.

Additions

Add appendices and acknowledgments, if appropriate.

3. MANUSCRIPT STYLE

Paper Length

The paper may be 6 to 20 pages in length.

Copyright Notice

A copyright notice must be placed as a footnote on the first page of the paper. Do not number this footnote. Choose an appropriate alternative from the list of four below:

- (1) For papers in which all authors are employed by the US government, the notice is: U.S. Government work not protected by U.S. copyright
- (2) For papers in which all authors are employees of a Crown Government (UK, Canada, Australia), the notice is: 978-1-5386-6854-2/19/\$31.00 © 2019 Crown
- (3) For papers in which all authors are employed by the European Union, the copyright notice is: 978-1-5386-6854-2/19/\$31.00 © 2019 European Union

(4) For all other papers the notice is: 978-1-5386-6854-2/19\$31.00 © 2019 IEEE

Paper, Margins, and Spacing

Format your electronic submission to 8.5 x 11 inch page size in double-column format with 0.75 inch margins on each side, top and bottom. There should be 0.25 inch between columns, which are justified both right and left.

Lines of text should be single-spaced, except for double spacing before headings and space-and-a-half after.

Headers and Footers

No headers are permitted. Utilize footers only for page numbers, which are centered at the bottom of each page.

Headings

Major Headings—Centered in the column with a double space before and space-and-a-half after.

Table 1. Summary of Due Dates

Event	Due Date
Abstracts Due	July 1, 2018
Review Paper Deadline	October 19, 2018
Revised papers Due	January 7, 2019
IEEE Copyright Form Due	January 7, 2019

Subheadings—Italicized and placed flush on the left-hand margin on a separate line. Use a double space before and space-and-a-half after.

Subsubheadings—Italicized, followed by an em dash and run in at the beginning of the paragraph. This paragraph has a correctly formatted subsubheading.

Other Elements

Equations— Equations should be centered in the column. When numbering an equation, enclose the number in parentheses placed flush with the right-hand margin of the column, as shown in the sample equations that follow.

$$\mathbf{F} = m\mathbf{a} \tag{1}$$

$$e = mc^2 (2)$$

Mathematical derivations and proofs should be developed in appendices.

Figures—Place figures as close to the text reference as possible. Center figure titles directly below the figure, as shown in Figure 1.

Figures should be sized for easy reading. No lettering in a figure should be smaller than 10 points. Scan photographs at a 300-dpi resolution and embed them in the paper. High-resolution images should be reduced to 300 dpi at the size they will be printed.

Tables—Place tables as close to the text reference as possible. Use the full width of the page for legibility, if required. Center table titles directly **above** the table.

Footnotes—All footnotes² following the IEEE copyright notice are numbered consecutively.

4. PAPER SUBMISSION

Submission due dates and deadlines are given in Table 1.

Abstract

An abstract of 250 to 500 words describing the planned content of the paper must be submitted electronically at the conference website.

Review Paper

The paper submitted for review must be a complete, fully formatted, and proofread manuscript, ready for publication. NO paper submitted for review after the deadline will be reviewed or admitted to the conference.

²This is an example of a footnote.

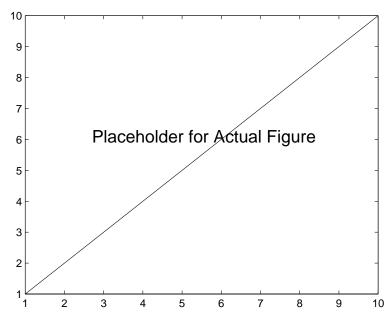


Figure 1. Here is an example of a figure that spans both columns.

Final Paper

Following receipt of review comments, make appropriate revisions to the paper and submit a final version for publication.

IEEE copyright Form

An IEEE Copyright Release Form for each paper, signed by the author or author's employer, is due with the final paper.

Copyright forms are available at the conference website and can be submitted electronically at the IEEE site linked for this purpose or by mail to the address provided on the website.

ITAR Compliance

International Traffic in Arms Regulation (ITAR) controls the export and import of defense articles and defense services as detailed in the U.S. Munitions List.

Authors who are U.S. nationals (including green card holders), work for a U.S.-based organization regardless of where they are physically located, or work at a U.S. location of a non-U.S.-based organization, must ensure that ITAR compliance has been obtained for any and all papers submitted to IEEE for publication.

Organizational Approval

Authors are expected to obtain any needed clearances for their work to be freely published by the IEEE. Submission of your paper implies that it has received the proper clearances from your company, affiliation, or organization.

Submission to the www.aeroconf.org website

Before Submitting your abstract or paper:

- 1) Scan your document with a current anti-virus product. (If a virus is detected, your file will be deleted)
- 2) Remove passwords or other protection from your file that would prevent it from being opened.

3) Submit a PDF version of your abstract of paper via the website.

5. PRESENTATION AT THE CONFERENCE

Prepare a presentation to be delivered at the conference, using Microsoft PowerPoint or similar software, that summarizes the major concepts of your paper.

Allotted Time

Time allotted for presentations is 18 minutes, with an additional 5 minutes for questions. The time limit will be strictly enforced.

Projection

A projector and screen will be set up in each meeting room. Bring your slide set on a laptop to plug in to the projector. Also bring a copy of your presentation on a USB drive, in case your session chair chooses to consolidate all the presentations on a single laptop before the session starts.

Presentation

Tips on giving the presentation will be sent to registered authors in advance of the conference.

Special Displays

Displays of hardware or software an author believes to be of wide interest to conference attendees may be set up with permission of the Technical Program Committee and by special arrangement with the Conference Manager.

6. BEST PAPER AWARD AND PUBLICATION

Best Paper Award

A Best Paper Award is given each year for excellence in technical innovation and exposition in the written paper. The selection is conducted prior to the conference and the award

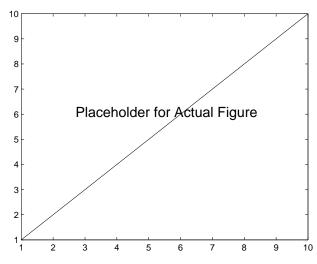


Figure 2. A single column figure.

is presented at the Conference.

Publication

Papers presented at the IEEE Aerospace Conference are published in two forms:

- 1) On an online database accessible by registrants
- 2) In the official Conference Proceedings on the web-based *IEEE Xplore* System following the conference

7. SUMMARY

This Author's Instructions document serves as a template for papers prepared for the 2019 IEEE Aerospace Conference. All paper submissions are accomplished online, through the IEEE Aerospace Conference website at www.aeroconf.org.

APPENDICES

A. More Information

This is the first appendix.

Comments

If you have only one appendix, use the "appendix" keyword.

More Comments

Use section and subsection keywords as usual.

B. YET MORE INFORMATION

This is the second appendix.

ACKNOWLEDGMENTS

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BIOGRAPHY



Erica Deionno received her B.S. and M.S. degrees in chemistry from UCLA in 1998 and a Ph.D. in chemistry in 2006. She is currently a research scientist at The Aerospace Corporation. Her current research activities include radiation testing and modeling of emerging resistive RAM technologies and modeling space solar cell degradation.



Jane Smith received her B.S. degree in Electrical Engineering in 1985 and a Ph.D. in Aerospacel Engineering from the Massachusettes Institute of Technology in 1990. She is currently a professor of Aerospace Engineering at the University of Nowhere. Her interests include secure communications and space exploration.