

EXTENDED ABSTRACT TEMPLATE

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Mamoru Tanahashi^{1*}, Yongchan Kim², Sumanta Acharya³, Koji Fukagata⁴

¹ Department of Mechanical Engineering, Tokyo Institute of Technology, Japan

² School of Mechanical Engineering, Korea University, Republic of Korea

³ The Mechanical, Materials, and Aerospace Engineering Department, Illinois Institute of Technology, USA

⁴ Department of Mechanical Engineering, Keio University, Japan

ABSTRACT

This guide has been prepared for authors of extended abstract to be presented at The Third Pacific Rim Thermal Engineering Conference (PRTEC2024), December 15-19, 2024, Honolulu, Hawaii, USA. Authors are requested to follow these guidelines to achieve uniformity in the presentation of the proceedings. The main format of the extended abstract is as follows. Text: Times New Roman (or equivalent), 11 pt, left and right justified. Headings: Times New Roman, all capitals, 12 pt, centered. Page size A4 (210 × 297 mm); 20 mm borders all round; paper title starts at 40 mm from the top of the page except for the first page. Convert the manuscript to a single PDF file and submit it to the Online Submission System (<https://www.jsme.or.jp/ted/PRTEC2024/>) by the electrical format. The abstract should summarize the key findings in your study and should be in a single paragraph no more than 250 words. It should give an account of the most relevant contributions of the paper. It is also important to briefly indicate the goal, the methods, the results, and the conclusions. Avoid abbreviations, diagrams, and references. It must be self-contained and understandable without reference to the text.

KEYWORDS: Times New Roman, 10 pt, Convection, Computational methods, Heat exchanger, Cooling turbine blade, Film cooling, High temperature

1. INTRODUCTION (Details for Submitting Extended Abstract)

The Extended abstract must be formatted using this template and submitted by **August 15, 2024** for review. **The final version of the Extended Abstract must be submitted by September 30, 2024** for inclusion in the proceedings. The final version of the extended abstract that does not conform to the correct format will not be included in the proceedings. There will be no opportunity to alter it after the submission of the final version.

It is assumed that the corresponding author will make a presentation at the conference. Each accepted extended abstract must have at least one paid regular or student registration by **October 15, 2024** to ensure that their presentation is included in the Conference Program.

2. LENGTH AND LAYOUT

The extended abstract should be in **2 - 5 pages** in A4 size (210 × 297 mm) including tables, figures and references. The extended abstract may include color figures. The file size should not exceed 4 Mbytes after conversion to a PDF file.

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Title: The title should appear 40 mm below the top edge of the page. It should be brief, clear and descriptive. Use Times New Roman 14 pt. all bold capital letters (except if formulae or symbols appear in the title), centered on the width of the typing area. Authors' names should be in lower-case letters in bold and the affiliations should be in no bold.

ABSTRACT: A brief abstract (100 - 250 words) should appear beneath the affiliation of the author(s). It should give an account of the most relevant contributions of your study. It is also important to indicate briefly the goal, the methods, the results, and conclusions. Avoid abbreviations, diagrams, and references. It must be complete and understandable without reference to the text. Leave a blank line between the Author's affiliation and the Abstract. Leave a blank line between the abstract and keywords.

KEYWORDS: Keywords can be selected to describe the feature of the extended abstract. Leave two blank lines between keywords and the first major heading.

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3. HEADINGS AND EQUATIONS

If your extended abstract is divided into **sections** and **subsections**, please use the format adopted here, in which the first-level headings are in 12 pt bold capitals, centered. Put two blank lines before the heading and a blank line after the heading.

3.1 Second-Level Headings The second-level headings should be in 12 pt bold lower case (initial capital), left aligned.

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Equations should be typed in position with an appropriate space above and below to distinguish them from the text. Use common fonts like Times New Roman in your math equations. Do not insert equations in a non-editable picture format. All equations should be numbered, e.g.,

$$\dot{r}(\alpha) = \lambda \tag{1}$$

and

$$k_{ij} = \theta_1 \exp\left(-\frac{1}{2} \sum_{d=1}^D \frac{(x_i - x_j)^2}{\lambda_d^2}\right). \tag{2}$$

An equation is a part of the text: do not isolate the equation. Put relevant punctuations. The Equation number should be flush right with a line space above and below the equation. Align equal signs when equations are stacked with no intervening words.

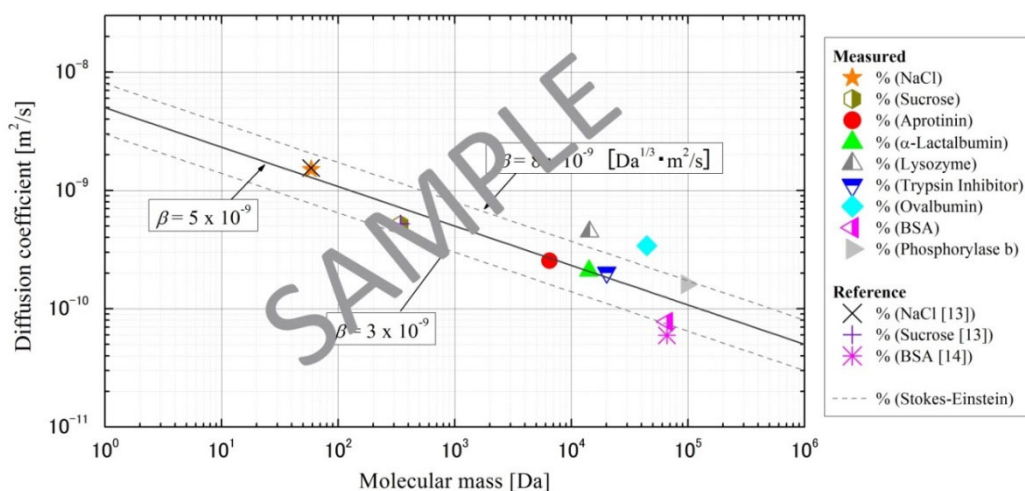


Fig. 1 One-line figure caption is centered under the figure. Make a space above the figure caption.

Subscripts and superscripts should clearly be typed, and the manuscript should be reviewed carefully to ensure there is no ambiguity in presentation. Numbers and letters that are intended to be subscripts or superscripts should not be aligned with the rest of the text.

All data should be reported in SI units. Decimals should always be shown by periods and not by commas or centered dots.

4. FIGURES AND TABLES

4.1 Figures Care should be taken to ensure that figures are contained within the typing area. All original drawings should be prepared. As a general rule, lettering (i.e., font type and size) in the figures should be comparable to that in the text. Color and black/white photographs are allowed in digital format with sufficient resolution to permit high-quality reproduction, and imported into the manuscript. Use or insert .jpg, .tiff, .gif, or similar program files for illustrations. Do not use PowerPoint or graphic constructions as they provide poor quality illustrations.

Figures should be numbered consecutively, and they are referred as, *e.g.*, Fig. 1, with a single letter space between the word “Fig.” and the Arabic numeral, but do not abbreviate it if it appears at the beginning of a sentence; namely, not “Fig. 1 shows ...” but “Figure 1 shows ...” at the beginning of a sentence.

Place figures centered on the width of the text page, either at the top or bottom of the page as close as possible to their first mentioning text. Figure captions should appear **below** the respective figure. Type the word “Fig.” and its number followed by two-letter space. Then, type the caption single spaced, with an initial capital for the first word and for proper nouns only. Provide relevant spacing around the figure.

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Table 1 The table caption is above the table. Captions that are two or more lines are flushed left, one line space above and below the caption.

Case	Diameter, d_B (mm)	f (Hz)	We	St
1	0.5	731	117	0.15
2	0.5	1799	620	0.16
3	1.3	198	124	0.17

Place tables centered on the width of the text page, either at the top or bottom of the page as close as possible to their first mentioning text. Table captions should appear **above** the respective table. Each table should have at least a two-line space both above the table and between the table and the start of the following text.

The first letter of the word “Table” should be capitalized, followed by the table number and period, then the caption with the first letter of main words capitalized, all centered above the table as shown below. Use horizontal rules above and below. Tables are in Times New Roman, 11 pt: one-line heading, centered; two- or more-line heading flush left. The table caption is placed above the table, with one line space above and below the caption. Type size of the body of the table depends on the size of the table, adjust type size accordingly.

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Authors from non-English speaking countries are requested to find persons who are competent in English and familiar with the scientific language and can edit their manuscripts before submission. Reviewers may not be relied on to make corrections of English expression, spelling, etc. As there is no editing stage for publication-ready manuscripts, it is the responsibility of authors to ensure that the presentation of their extended abstracts reaches the same high level as that of the work they describe.

6. CONCLUSIONS

Paper Size and Length: A4 (210 × 297 mm) and 2-5 pages.

Margins: 20 mm margins all round as in the Full Paper Template.

Line Spacing: Single-spaced with one blank line between paragraphs. No paragraph indentation.

Justification: Full justification.

Page Numbering: Pages should be numbered.

Figures and tables: Figures and tables should be placed at the top or bottom of the page on which they are first mentioned if possible, on the next page if not. Do not gather them at the end of the extended abstract.

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ACKNOWLEDGMENTS

Acknowledgments should be placed immediately following CONCLUSIONS, if necessary.

NOMENCLATURE

The editors of the major heat transfer journals have adopted a common list of symbols. The symbol list can be found in *Journal of Heat Transfer*, **121**, 770-773 (1999). All authors should use these symbols for the extended abstract submitted for this conference. **The symbols defined in this common list need not be included in the nomenclature list**; only symbols unique to the extended abstract should be listed here. A short nomenclature defining unusual or non-standard symbols should be placed immediately above the REFERENCES. **SI Units** must be used.

Be	dimensionless variable	(-)	$\phi(\Omega)$	function
\hat{C}	second variable	(s ²)	ζ	dimensionless variable (-)
Q_A	third variable	(kJ)	Ω	fifth variable (s ⁻¹)
w_x	fourth variable	(m ² /s)		

REFERENCES

Reference list at the end of the article should be numbered consecutively in the order they are mentioned, using Arabic numerals in square brackets [4] and formatted according to the following samples. Incorrectly formatted reference lists will be returned to the author for correction before acceptance. References should be in Times New Roman, 9 pt, justified copy, first line flush left, remaining lines indented (see, Reference list exemplified below).

- [1] Author, A. A., Author, B. B., and Author, C. C., "Title of article," *Title of Journal*, **12 (Volume)**, 231-251 (**Pages**) (2009). **(Year) Journal Paper Having Conventional Page Numbers← This note means that this is an example of a journal paper. The same applies to the following lines. Please remove all these red bold-face texts in your manuscript.**
- [2] Author, A. A., Author, B. B., and Author, C. C., "Title of article" *Title of Journal*, **34**, 123456 (2014). **Journal Paper with an Article Number**
- [3] Author, A. A. and Author, B. B., "Title of article," *Title of Journal*. doi: abcd/fghij/12345. **Journal Paper Published Online with DOI**
- [4] Author, A. A. and Author, B. B., "Title of article," *Title of Journal*, **56**. Retrieved month day, year, from <http://www.someaddress.com/full/url/>, (Date of publication). **Other Online Scholarly Journal Article**
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- [12] Author, A. A. and Author, B. B. Title of article. In Title of book or larger document (chapter or section number). Retrieved month day, year, from <http://www.someaddress.com/full/url/>, (Date of publication). **Chapter or Section of a Web Document**