

8th Multiphase Flows Journey São Carlos – SP, Brazil March 31st to April 04th, 2025



(1)

INSTRUCTIONS FOR FORMATTING THE EXTENDED ABSTRACTS (TIMES NEW ROMAN, BOLD, 12 PT, CAPITAL LETTERS)

(Single blank line, 12pt)

First Author's Name^{1*}, Second Author's Name¹, Third Author's Name² (Times New Roman, bold,

11pt)

*E-mail ¹First Affiliation ²Second Affiliation (Times New Roman, 10pt) (Single blank line, 10pt)

ABSTRACT

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This is the template for submitting an *extended abstract* to the 8th Multiphase Flows Journey, to be held in São Carlos-SP. The participant is kindly requested to submit the extended abstract with a maximum of 3 pages.

Authors' affiliations in the title text-block should be indicated by numbers, and the corresponding author marked with a star. The main text has to be written in English, typed in A4 sized pages, font Times New Roman, 10pt, justified alignment. All margins have to be set to 20 mm.

Mathematical equations must be indented by 5 mm from the left margin and are referred to as "Equation (1)" in the beginning of a sentence or "Eq. (1)" in the middle of a phrase. Mathematical symbols must be typed in *italic*, and symbols must be defined immediately before or after they appear or can be put in an optional Nomenclature section. Blank lines must be included before and after each equation. Equation (1) defines the conduction thermal resistance of a plane wall (R_{cond}) in terms of its thickness (L), cross-sectional area (A), and thermal conductivity (k), and stands as an example:

$$R_{cond} = \frac{L}{kA}$$
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Figures and tables are welcome in the extended abstract, given that they are adequately referred through the text. If they are mentioned in the beginning of a sentence, they should be cited as "Figure 1" or "Table 1", while the short version "Fig. 1" or "Tab. 1" shall be used when such reference is made in the middle of a sentence. Figure caption must come just below the figure, while table caption must be above the table. Blank lines are left immediately before and after each figure or table. Letters and numbers in the figures should be comparable to the text size, to ensure they are readable, as seen in Fig 1.



Fig. 1 Time variation of contact angle on neat and nanoparticles-coated surfaces. (Single blank line, 10pt)

Headings for second and third pages should be edited to show abbreviated authors names in a single line and the abstract title on the second line. If the title is too long to fit in a single line, it should be abbreviated for the headings. References are indicated by numbering [1-4], when the text refers to the work, or by First Author's last name and corresponding number, if the authors are cited, like in the work of Moreira et al. [1]. The references should be listed at the end of the extended abstract, with corresponding information of author(s), title, book title or journal title abbreviation, volume number, page-page, and year.

A nomenclature section is optional, with symbols, description, and units typed in size 8pt. An acknowledgments section can also be added in the last part of the extended abstract.

F. Author, S. Author, T. Author (To be edited accordingly) Title

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NOMENCLATURE

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ACross-sectional area, m²kThermal conductivity, Wm⁻¹K⁻¹

- *L* Wall thickness, m
- *R_{cond}* Conduction thermal resistance, K/W

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ACKNOWLEDGEMENTS (Single blank line, 10pt) This section is optional.

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REFERENCES

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- [1] Moreira, T. A., Moreira, D. C., & Ribatski, G. (2018). Nanofluids for heat transfer applications: a review. *Journal* of the Brazilian Society of Mechanical Sciences and Engineering, 40(6), 303.
- [2] Tibiriçá, C. B., Rocha, D. M., Sueth Jr, I. L. S., Bochio, G., Shimizu, G. K. K., Barbosa, M. C., & dos Santos Ferreira, S. (2017). A complete set of simple and optimized correlations for microchannel flow boiling and two-phase flow applications. *Applied Thermal Engineering*, 126, 774-795.
- [3] Oliveira, A. V. S., Avrit, A., & Gradeck, M. (2022). Thermocouple response time estimation and temperature signal correction for an accurate heat flux calculation in inverse heat conduction problems. *International journal of heat and mass transfer*, *185*, 122398.
- [4] Gardenghi, Á. R., Lacerda, J. F., Tibiriçá, C. B., & Cabezas-Gomez, L. (2021). Numerical and experimental study of the transient behavior of a domestic vapor compression refrigeration system–Influence of refrigerant charge and ambient temperature. *Applied Thermal Engineering*, 190, 116728.

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