UNCERTAINTIES 2016 - Template for Paper Publication in the Proceedings (Helvetica 16pt)

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Abstract: This document works as a template and provides the basic instructions of your manuscript preparation for the UNCERTAINTIES using LaTeX. Please, send any questions related to the manuscript format to suporte@swge.com.br.

Keywords: keyword1, keyword2, up to 5

NOMENCLATURE

A = total frontal area of the air flow, area, m2
b = pin height, m
D = pin diameter, diameter, m
f = friction factor in the pinned annulus, friction factor, dimensionless
H = annular opening, m

Greek Symbols
ΔP = pressure drop, Pa
ΔT = mean temperature difference, K

α = angle between two adjacent pins in the same cross-section, deg
η = pin efficiency, pinned region efficiency, dimensionless

Subscripts
a = relative to air
e = relative to exit
f = relative to pin fin
I = relative to inlet
K = relative to wall thermal resistance

L = relative to the number of transversal rows or to longitudinal pitch
1 = relative to the internal diameter of the internal tube
2 = relative to the external diameter of the internal tube
3 = relative to the internal diameter of the external tube

INTRODUCTION

This introduction contains the basic information for authors concerning the manuscript format. The proceedings of UNCERTAINTIES 2016 will be published electronically, in Portable Document Format (PDF), therefore, the papers must be formatted strictly according to these instructions to insure quality and standardization of the conference proceedings. The present file can be used as a template for MS Word users. To do so, use the 'Save as command to save this file with your paper ID name, e.g., "DIN-2015-0001.doc". Please update the Title and Authors headings by double-clicking the heading fields. Please also update the Title and Author fields under the file properties window. Consider a Short Title (up to 90 characters) for the Title field to keep headings length to a single line.

As basic hints, try to keep as much as possible the format presented here. Avoid the use of empty lines. There are styles dedicated to tables, figures and equations, which will be explained in more detail in the next sections.

Text content and layout

The manuscripts should be written in English. Pages should NOT be numbered. The page is formatted as DIN A4 with 2cm for the margins (except 1st page top margin of 3cm). The Headings are different for the first page, and after for even and odd pages. The first page heading should be like it is here, while the other headings are active fields that read data from the file properties, which is the reason why they need to be updated. The Paper Title, Authors' data and Abstract have specific formatting. The Authors names with contacts should be grouped and numbered to avoid repetition of institution addresses.

The Abstract should consist of a single paragraph describing the objectives, the methodology and the main conclusions of the paper in a maximum of 300 words. It should contain neither formulae nor reference to bibliography. The abstract will be included in a printed volume to be distributed to the symposium participants, whilst the full paper will be published in the proceedings CD-ROM.

The Style dedicated for general text is Normal. The body of the text must be justified. The first line of each paragraph must be indented by 5mm. Sufficient information must be provided directly in the text, or by reference to widely available published work. Footnotes should be avoided. All the symbols and notation must be defined either in the text or by the (optional) Nomenclature section after the Abstract. Physical quantities must be expressed in the S.I. (metric) units. Mathematical symbols appearing in the text must be typed in italic style.

Bibliographic references should be cited in the text by giving the last name of the author(s) and the year of publication,

according to the following examples: "Recent work (Smith and Farias, 1997)" or "Recently, Smith and Farias (1997)". In the case of four or more authors, the form "Smith et al. (1997)" should be used. Two or more references having the same authors and publication year must be distinguished by appending "a", "b", etc., to the year of publication. For example: 'Recent work (Smith and Farias, 1997a)". Acceptable references include journal articles, numbered papers, dissertations, theses, published conference proceedings, preprints from conferences, books, submitted articles (if the journal is identified) and private communications. Internet sites can also be cited as references. References should be listed at the end of the paper according to instructions provided in section References.

The following sub-sections describe in more detail other aspects of the text format such as, headings, Equations, Figures and Tables.

Section Headers and Sub-headers

There are 3 levels of Headers (section, subsection and subsubsection already used in this text). They are not to be numbered. The Heading styles are Justified. All headings are aligned to the left margin.

Mathematical Equations

The style for mathematic equations is adjusted automatically when using beginequation...endequation or similar. Do not use empty lines before and after an equation. It is automatically adjusted by the UNCERTAINTIES LaTeX class.

$$\mathbf{M}\ddot{\mathbf{x}}(t) + \mathbf{C}\dot{\mathbf{x}}(t) + \mathbf{K}\mathbf{x}(t) = \mathbf{f}(t) \tag{1}$$

Arabic numerals must be used as equation numbers, enclosed between parentheses, right-aligned, as shown in the examples above. Equations should be referred to either as "Eq. (1)" in the middle of a phrase or as "Equation (1)" in the beginning of a sentence. Symbols used in the equations must be defined immediately before or after their first appearance if they are not mentioned in the Nomenclature section after the Abstract.

Figures and Tables

There are dedicated styles for figures and tables. They should be numbered consecutively in Arabic numerals (1, 2, 3, etc.) and Centered. They should have a caption (use the same style as in this template) and be placed as close as possible to their first reference in the text. Figures in the text should be referred to as "Fig. 1", except at the beginning of a sentence, where "Figure 1" should be used instead. It is preferred that figures presenting technical data/results should have boundaries on all their four sides, with scale indicators (tick marks) on all the sides. Also, the legend for the data symbols should be put inside the figure, as well as the labels for each curve. Lettering should be large enough to be clearly legible as it can be seen in Fig. 1. Colored figures are allowed, however try to keep your figures as much as possible understandable in case they are printed in Black & White, e.g. by changing curves' style and/or markers, not only the color. Make sure that all black and white pictures, drawing or photos have a good contrast. Encapsulated Postscript (EPS) format should be preferred since they convert well to PDF files. In the case of photos, it is advised to use GIF format for those with few colors and JPEG format for those denser colored.
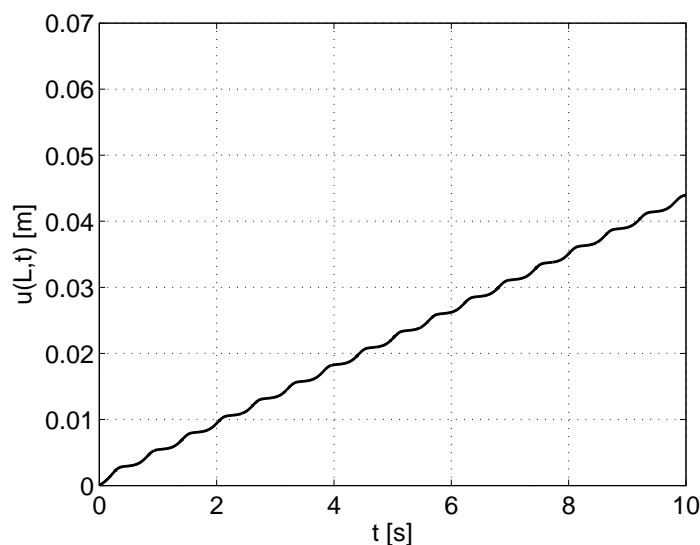
Figure 1 – Displacement.

Tables must be referred to either as "Tab. 1" in the middle of a phrase or as "Table 1" in the beginning of a sentence. The tables themselves as well as their titles must be centered in the breadth-wise direction. Use the styles 'Table Text' and 'Table Title' to format the tables (notice that they are automatically spaced from paragraphs). Units must be expressed in the S.I. (metric) system. Explanations, if any, should be given at the foot of the tables, not within the tables themselves. The style of table borders is left free; however an example is given in Tab. 1. The table caption should precede the table, and the style used in Tab. 1 should be used, as it was done for the figures.

Table 1 – Experimental results for flexural properties of CFRC-4HS and CFRC-TWILL composites. Span/depth ratio = 35:1. Average results of 7 specimens.

Composite Properties	CFRC-TWILL	CFRC-4HS
Flexural Strength (MPa)	209 ± 10	180 ± 15
Flexural Modulus (GPa)	57.0 ± 2.8	18.0 ± 1.3
Mid-span deflection at the failure stress (mm)	2.15 ± 1.90	6.40 ± 0.25

GENERATION OF THE PDF FILE

The final version of you paper in PDF format should not exceed 10 pages and 1Mb. The file name should be that of your Paper ID, e.g. DIN-2015-0001.pdf. One possible source of problems with big files is the figures. For that, it is preferable to use EPS, GIF or JPEG formats.

For those using LaTeX the PDF file generation can be achieved using pdflatex, latex+dvipdfm or latex+dvips+ps2pdf. In order to avoid problems related to font types, it is recommended to use only the Times New Roman, Symbol or Helvetica fonts in the entire document which means, figures, table, and captions, etc. This is automatically set when using this LaTeX class, through mathptmx and times styles. If you do not succeed in generating a proper digital version of your PDF file, please do not hesitate in contacting us at suporte@swge.com.br.

ACKNOWLEDGMENTS

This optional section must be placed before the list of references.

REFERENCES

The list of references must be introduced as a new section, located at the end of the paper. The first line of each reference must be aligned at left. All the other lines must be hanging by 1cm from the left margin. All references included in the reference list must have been mentioned in the text.

References must be listed in alphabetical order, according to the last name of the first author as in the following examples:

Bordalo, S.N., Ferziger, J.H. and Kline, S.J., 1989, The Development of Zonal Models for Turbulence, Proceedings of the 10th Brazilian Congress of Mechanical Engineering, Vol.1, Rio de Janeiro, Brazil, pp. 41-44.

Coimbra, A.L., 1978, Lessons of Continuum Mechanics, Ed. Edgard Blcher, S.Paulo, Brazil, 428 p.

Clark, J.A.,1986, Private Communication, University of Michigan, Ann Harbor.

Souza, P.R.; Nbrega, E.G.O., 2012, A Fault Location Method Using Lamb Waves and Discrete Wavelet Transform, Journal of the Brazilian Society of Mechanical Sciences and Engineering, Vol. XXXIV, No. 4, pp. 515-524

Sparrow, E.M., 1980, Forced Convection Heat Transfer in a Duct Having Spanwise-Periodic Rectangular Protuberances, Numerical Heat Transfer, Vol.3, pp. 149-167.

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