The 13th Asian International Conference on Fluid Machinery

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**AICFM13-\*\*\***

**Prepare the Manuscript Using this Template The Title of the Paper Should be Concise and Definitive**

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Abstract

The aims, scope and conclusions of the paper must be in a self-contained abstract of a single paragraph with 60-120 words. The abstract must be informative and not just indicative and contain a summary of the significant results reported in the paper. No references should be cited. Avoid mathematical expressions as far as possible. Just below the abstract, up to six keywords should be provided.

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The prospective authors are invited to submit abstract of original unpublished works.

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**5.1 General**

Summarize the content in 6-10 pages in the present single column format. Colored figures can be included but it is recommended to make the size of the pdf file smaller than 3MB.

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Place figures and tables where they are referred to for the first time in the main text. It is recommended to see a recent issue of the IJFMS to become familiar with the layout and conventions. Use 1.5 spacing and 10 or 12 pt font size and standard fonts. Number all pages consecutively.

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The basic elements of a paper are title, author names and affiliations, abstract and keywords, body of paper, acknowledgments, nomenclature, appendices, references, which should be presented in this order.

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**6.2 Reliability**

The paper should not include any apparent errors in the main body of theory, equations, experiments and understanding of the results.

**6.3 Expression and Structure**

The expressions and the structure should be clear and concise. The paper should present proper logics and discussions on the results obtained.

**6.4 Mathematics**

Particular care should be exercised in identifying all symbols and in avoiding ambiguities. Equation numbers should appear in parenthesis and be numbered consecutively. All equation numbers must appear on the right-hand side of the equation. Equations should be referenced within the text as “eq. (1).” When the reference to an equation begins a sentence, the abbreviation “eq.” should be spelled out, e.g., “Equation (1).”

 (1)



Fig. 1 Comparison of performance curves between optimum and reference blade shapes

**6.5 Figures**

**Table 2** Reference and optimal shape

|  |  |  |  |
| --- | --- | --- | --- |
| Shapes | Variables | Objectives | Objective function |
| *H*/*d* | *Hd*/*d* | *d*/*S* | *Nua/Nu0* | *Ff* | *Fsurrogate* | *FRANS* | *Fexperimental* |
| Reference (RANS) | 1.155 | 0.289 | 0.499 | 2.279 | 1.710 | - | 0.5927 | - |
| Optimal (by PBA) | 0.219 | 0.264 | 0.318 | 5.065 | 2.224 | 0.3909 | 0.3975 | - |

The figures should be clear and large enough so that all letters in the figures are readable. All figures should be placed where they are referred to for the first time and be numbered consecutively and have a proper caption. This number should be used when referring to the figure in text. Figure references should be included within the text in numerical order according to their order of appearance. Figures should be referenced within the text as “Fig. 1.” When the reference to a figure begins a sentence, the abbreviation “Fig.” should be spelled out, e.g., “Figure 1.”

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All tables should be placed where they appear in the text for the first time and should be numbered consecutively and have a proper caption. This number should be used when referring to the table in the text. Table references should be included within the text in numerical order according to their order of appearance.

1. **Conclusion**

The nomenclature list should be in alphabetical order with Greek symbols, also in alphabetical order and with a separate heading, following the alphabetical listing. Subscripts and superscripts should follow Greek symbols and should be identified with separate headings.

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**Acknowledgments**

Acknowledgments may be made to individuals or institutions who have made an important contribution

**Nomenclature**

|  |  |  |  |
| --- | --- | --- | --- |
| *Ac**Lx**Rth**Re* | Cross-section area of micro-channel [m2]Length of heat sink [m]Thermal resistance [ oC/W]Reynolds number (=*UbDh/ν*) | *T**Ui**θ*, *φ**ρ* | Local mean temperature [K]Mean velocity components (i=1, 2, 3)Design variables, *Wc/Hc* and *Ww/Hc*Fluid Density |

**References**

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[4] Jameson, A., Schmidt, W., and Turkel, E., 1981, “Numerical Solutions of the Euler Equation by Finite Volume Methods Using Runge-Kutta Time Stepping Schemes,” AIAA 81-1259.

[5] Denton, J. D., Xu, L., 2002, “The Effects of Lean and Sweep on Transonic Fan Performance,” ASME Turbo Expo, Amsterdam, Netherlands, GT-2002-30327.

[6] T. Burns, 1995, US Patent No. 358498.