

## Preparation of Papers for XVII NASAS

First. A. Author<sup>1</sup>, Second. B. Author<sup>2</sup> and Third. C. Author<sup>3</sup>

<sup>1,2</sup>*Business or Academic Affiliation, City, State, Pin Code*

<sup>3</sup>*Business or Academic Affiliation, City, State, Pin Code*

These instructions give you guidelines for preparing papers for XVII NASAS. Use this document as a template if you are using Microsoft Word 2001 or later for Windows, or Word X or later for Mac OS X. Otherwise, use this document as an instruction set. Underline the presenting author. This first paragraph is formatted in the abstract style. Abstracts are required *only* for regular, full-length papers. Be sure to define all symbols used in the abstract, and do not cite references in this section. The final form of the paper should be submitted in .pdf format only.

### Nomenclature

(Nomenclature entries should have the units identified. Follow SI system of units.)

$A$  = amplitude of oscillation

$a$  = cylinder diameter

$C_p$  = pressure coefficient

$C_x$  = force coefficient in the  $x$  direction

$C_y$  = force coefficient in the  $y$  direction

$c$  = chord

$dt$  = time step

$F_x$  =  $X$  component of the resultant pressure force acting on the vehicle

$F_y$  =  $Y$  component of the resultant pressure force acting on the vehicle

### I. Introduction

This document is a template for Microsoft Word 2001 or later. If you are reading a hard-copy or .pdf version of this document, download the electronic file, PAPER\_template.dot, from <http://www.iitk.ac.in/~xviinasas> and use it to prepare your manuscript.

## **II. Procedure for Paper Submission**

All manuscripts are to be submitted by emailing a .pdf file to [xviinasas@iitk.ac.in](mailto:xviinasas@iitk.ac.in). You will receive an acknowledgement email from us.

## **III. General Guidelines**

The following section outlines general (nonformatting) guidelines to follow. These guidelines are applicable to all authors and include information on the policies and practices relevant to the publication of your manuscript.

### **A. Publication by XVII NASAS**

A book of abstracts for all selected papers will be published. Further, all selected papers will be added in a CD ROM.

### **B. Copyright**

XVII NASAS will not be responsible for any copyright violation of the material submitted in abstract or paper form by authors.

## **IV. Detailed Formatting Instructions**

The styles and formats for the XVII NASAS Template have been incorporated into the structure of this document. If you are using Microsoft Word, please use this template to prepare your manuscript. If you are reading a hard-copy or .pdf version of this document, please download the electronic template file, PAPER\_template.dot, from <http://www.iitk.ac.in/~xviinasas>.

If you are using the PAPER\_template.dot file to prepare your manuscript, you can simply type your own text over sections of this document, or cut and paste from another document and use the available markup styles. If you choose to cut and paste, select the text from your original Word document and choose Edit>Copy. (Do not select your title and author information, since the document spacing may be affected. It is a simple task to reenter your title and author information in the template.) Open the PAPER Template. Place your cursor in the text area of the template and select Edit>Paste Special. When the Paste Special box opens, choose “unformatted text.” Please note that special formatting (e.g., subscripts, superscripts, italics) may be lost when you copy your text into the template.

### **C. Document Text**

The default font for the XVII NASAS Template is Times New Roman, 10-point size. In the electronic template, use the “Text” style from the pull-down menu to format all primary text for your manuscript. The first line of every paragraph should be indented, and all lines should be double-spaced. Default margins are 1 in. on all sides. In the electronic version of this template, all margins and other formatting are preset. There should be no additional (blank) lines between paragraphs.

*NOTE:* If you are using the electronic template to format your manuscript, the required spacing and formatting will be applied automatically, simply by using the appropriate style designation from the pull-down menu.

#### **D. Headings**

Format the title of your paper in bold, 12-point type, with capital and lower-case letters, and center it at the top of the page. The names of the authors, business or academic affiliation, city, and state/province follow on separate lines below the title. The names of authors with the same affiliation can be listed on the same line above their collective affiliation information. Author names are centered, and affiliations are centered and in italic type. The affiliation line for each author includes that author’s city, state, and pin code (or city, state and pin code, as appropriate).

Major headings in the template (“Heading 1” in the template style list) are bold 11-point font and centered. Please omit section numbers before all headings unless you refer frequently to different sections. Use Roman numerals for major headings if they must be numbered.

Subheadings (“Heading 2” in the template style list) are bold, flush left, and either unnumbered or identified with capital letters if necessary for cross-referencing sections within the paper.

Sub-subheadings (“Heading 3” in the template style list) are italic, flush left, and either unnumbered or numbered with Arabic numerals (1, 2, 3, etc.) if necessary for cross-referencing sections within the paper.

#### **E. Abstract**

An abstract appears at the beginning of Full-Length Papers. (Survey and Design Forum Papers, History of Key Technologies Papers, invited lectures, and Technical/Engineering Notes do not include abstracts.) The abstract is one paragraph (not an introduction) and complete in itself (no reference numbers). It should indicate subjects dealt with in the paper and state the objectives of the investigation. Newly observed facts and conclusions of the experiment or argument discussed in the paper must be stated in summary form; readers

should not have to read the paper to understand the abstract. Format the abstract bold, indented 3 picas (1/2 in.) on each side, and separated from the rest of the document by two blank lines.

## **F. Nomenclature**

Papers with many symbols should have a nomenclature that defines all symbols with units, inserted between the abstract and the introduction. If one is used, it must contain all the symbology used in the manuscript, and the definitions should not be repeated in the text. In all cases, identify the symbols used if they are not widely recognized in the profession. Define acronyms in the text, not in the nomenclature.

## **G. Biographies**

Survey Papers and some Full-Length Papers include author biographies. These biographies are one paragraph each and should use the abstract formatting style.

## **H. Footnotes and References**

Footnotes, where they appear, are placed above the 1-in. margin at the bottom of the page. To insert footnotes into the template, use the Insert>Footnote feature from the main menu as necessary. Footnotes are formatted automatically in the template, but, if another medium is used, they should appear as superscript symbols in the following sequence: \*, †, ‡, §, ¶, \*\*, ††, ‡‡, §§, etc.

List and number all references at the end of the paper. Corresponding bracketed numbers are used to cite references in the text [1], including citations that are an integral part of the sentence (e.g., “It is shown in [2] that...” ) or follow a mathematical expression: “ $A^2 + B = C$  (Ref. [3]).” For multiple citations, separate reference numbers with commas [4, 5], or use a dash to show a range [6–8]. Reference citations in the text should be in numerical order.

In the reference list, use first authors name followed by “et al.” instead of giving all authors name. Papers that have not been published should be cited as “unpublished”; papers that have been submitted or accepted for publication should be cited as “submitted for publication.” Private communications and personal Web sites should appear as footnotes rather than in the reference list.

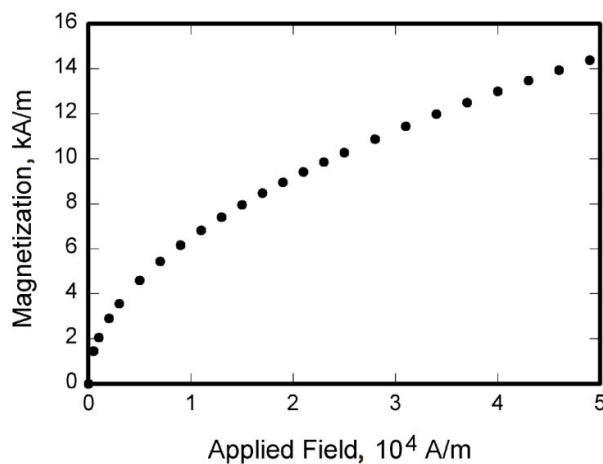
References should be cited according to the standard publication reference style. (For examples, see the “References” section of this template.) Names and locations of publishers should be listed; month and year should be included for reports and papers. For papers published in translation journals, please give the English citation first, followed by the original foreign language citation.

## I. Figures and Tables

Insert tables and figures within your document; they may be either scattered throughout the text or grouped all together at the end of the file. Use the Table drop-down menu to create your tables; do not insert your figures in text boxes. Figures should have no background, borders, or outlines. In the electronic template, use the “Figure” style from the pull-down formatting menu to type caption text. You may also insert the caption by going to the Insert menu and choosing Caption. Make sure the label is “Fig.,” and type your caption text in the box provided. Captions are bold with a single tab (no hyphen or other character) between the figure number and figure description. See the Table 1 example for table style and column alignment. If you wish to center tables that do not fill the width of the page, simply highlight and “grab” the entire table to move it into proper position.

**Table 1 Transitions selected for thermometry**

| Line | Transition |          |       | Frequency, $\text{cm}^{-1}$ | $FJ$ , $\text{cm}^{-1}$ | $Gv$ , $\text{cm}^{-1}$ |
|------|------------|----------|-------|-----------------------------|-------------------------|-------------------------|
|      | $v''$      |          | $J''$ |                             |                         |                         |
| a    | 0          | $P_{12}$ | 2.5   | 44069.416                   | 73.58                   | 948.66                  |
| b    | 1          | $R_2$    | 2.5   | 42229.348                   | 73.41                   | 2824.76                 |
| c    | 2          | $R_{21}$ | 805   | 40562.179                   | 71.37                   | 4672.68                 |
| d    | 0          | $R_2$    | 23.5  | 42516.527                   | 1045.85                 | 948.76                  |



**Fig. 1 Magnetization as a function of applied fields.**

Place figure captions below all figures. If your figure has multiple parts, include the labels “a),” “b),” etc., below and to the left of each part, above the figure caption. Please verify that the figures and tables you mention in the text actually exist. When citing a figure in the text, use the abbreviation “Fig.” except at the beginning of a sentence. Do not abbreviate “Table.” Number each different type of illustration (i.e., figures and tables) sequentially with relation to other illustrations of the same type.

## J. Equations

Equations are numbered consecutively, with equation numbers in parentheses flush right, as in Eq. (1). Insert a blank line both above and below the equation. First use the equation editor to create the equation. If you are using Microsoft Word, use either the Microsoft Equation Editor or the MathType add-on (<http://www.mathtype.com>) for equations in your paper, use the function (Insert>Object>Create New>Microsoft Equation *or* MathType Equation) to insert it into the document. Please note that “Float over text” should *not* be selected. To insert the equation into the document, do the following:

- 1) Select the “Equation” style from the pull-down formatting menu, and hit “tab” once.
- 2) Insert the equation, and hit “tab” again.
- 3) Enter the equation number in parentheses.

A sample equation is included here, formatted using the preceding instructions:

$$\int_0^{\frac{\pi}{2}} F(r, \varphi) dr d\varphi = [\sigma_2 / (2\mu_o)] \int_0^{\infty} \exp(-\lambda |z_j - z_i|) \lambda^{-1} J_1(\lambda r_2) J_0(\lambda r_i) d\lambda \quad (1)$$

Be sure that symbols in your equation are defined in the Nomenclature or immediately following the equation. Also define abbreviations and acronyms the first time they are used in the main text.

## K. General Grammar and Preferred Usage

Use only one space after periods or colons. Hyphenate complex modifiers: “zero-field-cooled magnetization.” Insert a zero before decimal points: “0.25,” not “.25.” Use “cm<sup>2</sup>,” not “cc.”

A parenthetical statement at the end of a sentence is punctuated outside of the closing parenthesis (like this). (A parenthetical sentence is punctuated within parenthesis.) Use of American as well as English spellings (e.g., “color,” and “colour”) is allowed.

## L. Paper Length

The full paper should not exceed the eight A4 sheets.

## V. Conclusion

Although a conclusion may review the main points of the paper, it must not replicate the abstract. A conclusion might elaborate on the importance of the work or suggest applications and extensions. Do not cite references in the conclusion. Note that the conclusion section is the last section of the paper to be numbered. The appendix (if present), acknowledgment, and references are listed without numbers.

## Appendix

An Appendix, if needed, appears before the acknowledgments.

## Acknowledgments

An Acknowledgments section, if used, immediately precedes the References. Sponsorship and financial support acknowledgments should be included here.

## References

If you are using the Word version of this template, select the “references” style from the drop-down style menu to format your references. If you are using a print or .pdf version, all references should be in 9-point font, with reference numbers in brackets. You are not required to indicate the type of reference; different types are shown here for illustrative purposes only.

The DOI (Digital Object Identifier) should be incorporated in every reference for which it is available (see Ref. 1 sample); for more information on DOIs, visit [www.doi.org](http://www.doi.org) or [www.crossref.org](http://www.crossref.org).

### *Periodicals*

- [1] Vatistas, G. H., Lin, S., and Kwok, C. K., “Reverse Flow Radius in Vortex Chambers,” *AIAA Journal*, Vol. 24, No. 11, 1986, pp. 1872, 1873.  
doi: 10.2514/3.13046
- [2] Dornheim, M. A., “Planetary Flight Surge Faces Budget Realities,” *Aviation Week and Space Technology*, Vol. 145, No. 24, 9 Dec. 1996, pp. 44–46.
- [3] Terster, W., “NASA Considers Switch to Delta 2,” *Space News*, Vol. 8, No. 2, 13–19 Jan. 1997, pp. 1, 18.

All of the preceding information is required. The journal issue number (“No. 11” in Ref. 1) is preferred, but the month (Nov.) can be substituted if the issue number is not available. Use the complete date for daily and weekly publications. Transactions follow the same style as other journals.

### *Books*

- [4] Peyret, R., and Taylor, T. D., *Computational Methods in Fluid Flow*, 2<sup>nd</sup> ed., Springer-Verlag, New York, 1983, Chaps. 7, 14.
- [5] Oates, G. C. (ed.), *Aerothermodynamics of Gas Turbine and Rocket Propulsion*, AIAA Education Series, AIAA, New York, 1984, pp. 19, 136.

- [6] Volpe, R., "Techniques for Collision Prevention, Impact Stability, and Force Control by Space Manipulators," *Teleoperation and Robotics in Space*, edited by S. B. Skaar and C. F. Ruoff, Progress in Astronautics and Aeronautics, AIAA, Washington, DC, 1994, pp. 175–212.

Publisher, place, and date of publication are required for all books. No state or country is required for major cities: New York, London, Moscow, etc. A differentiation must always be made between Cambridge, MA, and Cambridge, England, UK. Note that series titles are in Roman type.

#### *Proceedings*

- [7] Thompson, C. M., "Spacecraft Thermal Control, Design, and Operation," *AIAA Guidance, Navigation, and Control Conference*, CP849, Vol. 1, AIAA, Washington, DC, 1989, pp. 103–115
- [8] Chi, Y. (ed.), *Fluid Mechanics Proceedings*, NASA SP-255, 1993.
- [9] Morris, J. D., "Convective Heat Transfer in Radially Rotating Ducts," *Proceedings of the Annual Heat Transfer Conference*, edited by B. Corbell, Vol. 1, Inst. of Mechanical Engineering, New York, 1992, pp. 227–234.

#### *Reports, Theses, and Individual Papers*

- [10] Chapman, G. T., and Tobak, M., "Nonlinear Problems in Flight Dynamics," NASA TM-85940, 1984.
- [11] Steger, J. L., Jr., Nietubicz, C. J., and Heavey, J. E., "A General Curvilinear Grid Generation Program for Projectile Configurations," U.S. Army Ballistic Research Lab., Rept. ARBRL-MR03142, Aberdeen Proving Ground, MD, Oct. 1981.
- [12] Tseng, K., "Nonlinear Green's Function Method for Transonic Potential Flow," Ph.D. Dissertation, Aeronautics and Astronautics Dept., Boston Univ., Cambridge, MA, 1983.

Government agency reports do not require locations. For reports such as NASA TM-85940, neither insert nor delete dashes; leave them as provided. Place of publication *should* be given, although it is not mandatory, for military and company reports. Always include a city and state for universities. Papers need only the name of the sponsor; neither the sponsor's location nor the conference name and location is required. *Do not confuse proceedings references with conference papers.*

#### *Electronic Publications*

CD-ROM publications and regularly issued, dated electronic journals are permitted as references. Archived data sets also may be referenced as long as the material is openly accessible and the repository is committed to archiving the data indefinitely. References to electronic data available only from personal Web sites or commercial, academic, or government ones where there is no commitment to archiving the data are not permitted in the reference list.



- [13] Richard, J. C., and Fralick, G. C., "Use of Drag Probe in Supersonic Flow," *AIAA Meeting Papers on Disc* [CD-ROM], Vol. 1, No. 2, AIAA, Reston, VA, 1996.
- [14] Atkins, C. P., and Scantelbury, J. D., "The Activity Coefficient of Sodium Chloride in a Simulated Pore Solution Environment," *Journal of Corrosion Science and Engineering* [online journal], Vol. 1, No. 1, Paper 2, URL: <http://www.cp.umist.ac.uk/JCSE/vol1/vol1.html> [cited 13 April 1998].
- [15] Vickers, A., "10-110 mm/hr Hypodermic Gravity Design A," *Rainfall Simulation Database* [online database], URL: <http://www.geog.le.ac.uk/bgrg/lab.htm> [cited 15 March 1998].

Always include the citation date for online references. Break Web site addresses after punctuation, and do not hyphenate at line breaks.

#### *Computer Software*

- [16] TAPP, Thermochemical and Physical Properties, Software Package, Ver. 1.0, E. S. Microware, Hamilton, OH, 1992.
- Include a version number and the company name and location of software packages.

#### *Patents*

- Patents appear infrequently. Be sure to include the patent number and date.
- [17] Scherrer, R., Overholster, D., and Watson, K., Lockheed Corp., Burbank, CA, U.S. Patent Application for a "Vehicle," Docket No. P-01-1532, filed 11 Feb. 1979.

#### *Private Communications and Web Sites*

References to private communications and personal Web site addresses are not permitted. They may, however, be incorporated into the main text of a manuscript or may appear in footnotes.

#### *Unpublished Papers and Books*

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- [18] Doe, J., "Title of Paper," *Name of Journal* (to be published).
- [19] Doe, J., "Title of Chapter," *Name of Book*, edited by..., Publisher's name and location (to be published).
- [20] Doe, J., "Title of Work," Name of Archive, Univ. (or organization), City, State, Year (unpublished).

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