

TEMPLATE OF ASTRA 2025 EXTENDED ABSTRACT (MAXIMUM 2 PAGES)Author 1¹, Author 2¹ & Author 3^{2*}¹*Department Aerospace Engineering, IIST, Thiruvananthapuram, Kerala*²*Department, Institute address 2, India*

Summary The following guidelines have been prepared for authors of the extended abstract to be presented at the forthcoming ASTRA2024 in IIST, Thiruvananthapuram, Kerala, India. They provide the rules for the preparation of extended abstract (maximum 2 pages), which will be used for selection by the International Papers Committee and for inclusion in the ASTRA2024 program. Authors are requested to follow these guidelines in order to achieve uniformity in the presentation of the Proceedings. This summary must not exceed 900 characters. Font Times New Roman for the whole manuscript, size 9 for this Summary and figures legends and captions, 10 for the whole manuscript.

MANUSCRIPT PREPARATION

Symposium participants are encouraged to submit the extended abstract from any area of theoretical and applied mechanics, Aerodynamics and flight mechanics, structures and design, thermal and propulsion. The Symposium website will be open for extended abstract submission from May 21, 2025. The deadline for extended abstract submission is May 30, 2025. Contributors will be informed of the decision of the ASTRA-2025 Technical Committee and of the assignment of their extended abstract to a session after June 1, 2025. The extended abstract must be in English and should present material that is novel and preferably unpublished at the time of the Symposium. All extended abstracts presented at the Symposium are by invitation based on the recommendation of the ASTRA-2025 Technical Committee. No author will be invited to present more than one extended abstract. The extended abstract submission must be done electronically through the Congress website. The layout of the extended abstract should follow the style of this document, starting with a title, followed by the name(s) of author(s) and affiliation(s). The name of the author presenting the extended abstract must be underlined [1-3].

Electronic submission of the Extended Abstract (PDF format and editable format)

The extended abstract will be used by the Papers Committee as the sole means of selection of the extended abstract for presentation at the Symposium. All accepted extended abstracts will be published in the Symposium program to be distributed to participants with other Symposium materials. The extended abstract is limited to a maximum of two A4 pages (including figures), and it must be submitted as a PDF document as well as an editable format [4]. The size of the PDF document must be less than 1 MB. **WHEN PREPARING THE PDF FILE, REMEMBER TO EMBED ALL THE FONTS** into your PDF file; use TrueType fonts as much as possible, and avoid any special fonts. If the reviewers cannot read your PDF file, it is unlikely they will accept it!

The text should start with a title followed by the authors' names and affiliations. The title should appear 20 mm below the top edge of the page. It should be brief, clear, and descriptive. Use all bold capital letters, centred on the width of the typing area. Leave one blank line after the title and another after the affiliation. A short summary (max. 900 characters) should be given at the beginning. If the extended abstract is divided into sections and subsections, please adopt the format used here, in which the first-level headings are centred in bold capitals and the second-level headings are left-aligned in bold lowercase letters, starting with a capital. Do not number sections. The text should be single-spaced using a 10-point font. Begin paragraphs with 3 3-character indentation at the left margin. The typing area of all pages should be 170 x 260 mm, leaving 20 mm margins on the left, right, top, and bottom. The total length of the extended abstract, including all figures and references, if any, cannot exceed two pages. The contribution should be prepared like a manuscript for journal submission. All extended abstracts must be submitted online by Friday May 30, 2025

GENERAL GUIDELINES

You are urged to make your extended abstract as attractive as possible using text, figures, diagrams, and photographs. The extended abstract will enable the reviewers and the International Papers Committee to decide upon the suitability of your contribution for the presentation at the Congress. You can upload or embed a figure (JPEG, PNG or PDF). To include it in your document, use the include graphics command as in the latex code for Figure. 1 below in the case of latex. All mathematical equations should be clearly printed/typed using well accepted explanations. Superscripts and subscripts should be typed clearly above or below the base line. Equation numbers should be given in Arabic numerals enclosed in parentheses on the right-hand margin as shown in (1). They should be cited in the text as, for example,

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Eq. (1), or Eqs. (1)-(3). It should specify the main assumptions, techniques, and results, accompanied by background information about how your work relates to other works in the field. Only essential formulae and figures should be included, and only key references need to be given. A table can be included, as shown in Table 1. A communicative title, a clearly presented summary, and the main text will all assist the International Papers Committee in making a positive decision.



Figure 1. Insert a figure caption, font size 9.

Young's modulus (GPa)	210
Poisson's ratio	0.3
Yield Strength (MPa)	433
UTS (MPa)	460

Table 1. Material properties of SCP10.

$$y = \beta_0 + \sum_{i=1}^{n_d} \beta_i x_i + \sum_{i=1}^{n_d} \sum_{j \geq i}^{n_d} \beta_{ij} x_i x_j \quad (1)$$

ORAL PRESENTATION

The extended abstract accepted for the oral presentation will be arranged by subject into one of the parallel sessions. A period of 15 minutes, plus 5 minutes for discussion (25 + 5 min for invited talks), will be allotted to each extended abstract. Standard audio-visual presentation equipment will be available in each lecture room. Details regarding the Congress presentation facilities will be provided on the Congress website after May 31, 2024.

SHORT TALK WITH POSTER PRESENTATION

Authors of the extended abstract accepted for short talk with poster presentation will be provided with an opportunity to make a short presentation during dedicated sessions. The time limit for this presentation is 5 minutes including change over. No questions will be permitted. The authors will be expected to stand by their posters during the poster session to respond to any potential questions. The Congress will provide poster boards and stands.

The usable area of a poster panel is 0.9m (width) by 1.2m (height). Authors are advised to read the details given on the Congress website. The recommended poster size is 841 mm wide × 1189 mm high (A0 vertical). Posters should be prepared directly on one sheet. The lettering should be large enough to be read by someone standing 2m back from the poster and the following text sizes are suggested. Title: 2-3 cm; Authors' names and affiliations: 2cm; Section headings (ABSTRACT, RESULTS, etc.): 2 cm. The text itself should be approximately 10mm high. The use of more diagrams, colour, and fewer words is recommended for clarity. Use phrases and short sentences in "bullet points". It is recommended that the poster be divided into the following sections: (i) summary; (ii) problem definition and/or goals; (iii) results and conclusions.

CONCLUSIONS

Prepare an extended abstract as both a PDF file and an editable format and submit the extended abstract following the instructions. Confirmation by way of an email will be sent to your email address.

References

- [1] Cooler A.S.: Binary Flow Systems. *J. Fluid Mech* **999**:999–996, 1999.
- [2] Icer D.F., Adams J.A.: *Mathematical Elements for Computer Simulation*. McGraw-Hill, NY 1977.
- [3] Nygus G.: *Numerical Analysis Using Finite Element Method*. *PhD Thesis*, NTU Mech. Eng. Dept., Lagos, 1983.
- [4] ASTRA 2025, www.iist.ac.in/astra