

## Call for Papers: AIAA AVIATION Forum, 7 June – 11 June 2027 Technical Discipline - Air Transportation Systems (ATS)

### ATS Technical Planning Committee

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### Submission Guidelines

**Please submit extended abstracts that clearly demonstrate preliminary objectives, approach, and results** using the link at <https://www.aiaa.org/aviation/>. Extended abstracts should be **at least three full pages** with convincing technical contribution and progress. Each submission will be reviewed by at least three members of the ATS Technical Committee or qualified experts from industry, academia, or government through a single-blind review process. To help reviewers provide informed evaluations and constructive comments that will stimulate discussion, each submission shall clearly and concisely:

- State the key research questions being addressed or the primary research objective(s).
- Provide accurate, relevant, and up-to-date references to the existing technical literature and state of the art.
- Identify specific technical challenges or gaps that your research addresses.
- Highlight the specific innovations or technical contributions of your paper, including any previous work (by you) that your research builds upon.
- Present sufficient preliminary evidence to support the validity of your proposed ideas, such as preliminary data from simulation or hardware experiments, theorems with proofs/proof sketches, illustrative numerical examples.
- Outline a detailed plan for the final manuscript submission and conference presentation, including any simulations, experiments or analyses to be performed.

### Areas of Interest

The Air Transportation Systems Committee invites technical papers that describe advancements in **air** transportation systems and operations, with emphasis on:

- **Enhancing existing systems:** Concepts, technologies, procedures, algorithms, functions, and analyses to improve the safety, efficiency, scalability, resilience, and sustainability of today's airspace, airline, and airport management systems.
- **Emerging traffic systems:** Development, algorithms, testing, and operations for new traffic management approaches that expand access to the National Airspace System (NAS) for novel vehicle operations, including:
  - Unmanned Aerial Systems (UAS) and UAS Traffic Management (UTM)
  - Advanced Air Mobility (AAM)
  - Upper Class E Traffic Management (ETM) and high-altitude operations (HAO)
  - Supersonic and hypersonic airspace users
  - Commercial space traffic
  - Integration of these new entrants into the NAS
- **New technologies and methods:** Application of data science, machine learning, artificial intelligence, and related approaches to air transportation challenges.
- **Modeling and simulation:** Techniques that advance both conventional and non-conventional air transportation systems.

### Neil Y. Chen Memorial Best Student Paper Award

The *Neil Y. Chen Memorial Best Student Paper Award* in air transportation systems recognizes the best student paper each year in the air transportation system technical discipline at the AIAA Aviation. This best student paper award competition commemorates the late Dr. Neil Y. Chen, whose research in air traffic

management improved prediction of weather-hindered air traffic and advanced the understanding of mitigation strategies for climate impact arising from aviation operations.

The authors who want their papers to be considered for this award should select the best student paper option during submission. The full papers will be evaluated by the AIAA requirements and our technical committee selection criteria. The authors (finalists) of the 3-5 candidate papers will be invited to give their presentations in the same session. The award will be announced at the AIAA Aviation. Please review the Call for Participation<sup>1</sup> for this award carefully, particularly regarding paper eligibility and selection criteria.

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<sup>1</sup> <https://aiaa.org/aviation/call-for-content/call-for-papers/student-paper-competitions/#air-transportation-systems>