Call for Papers

The AIAA Adaptive Structures, Structures, and Structural Dynamics Technical Committees are sponsoring a Session

In Honor of Dr. Frank Abdi

AIAA SciTech 2025
January 6-10, 2025
Orlando, FL

Dr. Frank Abdi, the esteemed Founder and Chief Technical Officer of AlphaSTAR Corporation, has been a pivotal figure in pushing the boundaries of computational engineering in aerospace structures through his instrumental work in four key areas: computational damage and fracture modeling, nano-mechanics, virtual simulation of additive manufacturing processes, and structural health monitoring. His groundbreaking contributions in these domains, among others, have not only addressed some of the most significant challenges in the aerospace community but have also gained heightened importance considering emerging trends. These include the development of next-generation aerospace systems, the exploration of alternative energy and propulsion systems, and the drive towards sustainable aerospace solutions.

In recognition of Dr. Abdi's remarkable legacy and the profound impact he has had on the field, we cordially invite researchers to contribute their work to a special session dedicated to celebrating his achievements and enduring influence. This session aims to honor Dr. Abdi's memory by gathering and showcasing research that continues to build upon and be inspired by his visionary work. Join us in paying tribute to a true pioneer whose contributions have indelibly shaped the future of aerospace engineering.

The committee welcomes submissions from government, industry, academic, and small businesses. All abstracts are peer-reviewed.

Extended abstracts of no less than 1,000 words are due **May 23, 2024**
Author notification of paper acceptance on or about **August 26, 2024**
Final manuscript due **December 2, 2024**

Detailed deadline information, abstract preparation instructions, and policies can be found at:
https://www.aiaa.org/SciTech/call-for-content/call-for-papers

Make sure to select the "In Honor of Dr. Frank Abdi" topic option under "Adaptive Structures", "Structures", or "Structural Dynamics" technical disciplines when prompted during submission.

For more information, contact one of the following organizers:

Dr. Ali Najafi	Ansys Inc.	ali.najafi@ansys.com
Dr. Francis Phillips	Army Research Lab	francis.r.phillips7.civ@army.mil

Call for Papers

The AIAA Adaptive Structures Technical Committees is sponsoring a Special Session on

Advancements on Structural Health Monitoring and Non-Destructive Inspection

AIAA SciTech 2025
January 6-10, 2025
Orlando, FL

The introduction of composites, hybrid material systems, complex geometric features and topology optimized structures in the aerospace and maritime industry have highlighted challenges in identifying and measuring discontinuities and damage in critical components. This session aims at bringing together researchers from industry, research laboratories and academia to show case advancements in the field of structural health monitoring (SHM), non-destructive evaluation (NDE), load monitoring, and prognostic health management (PHM). The session is open to both theoretical and in-field studies.

The committee welcomes submissions from government, industry, academic, and small businesses. All abstracts are peer-reviewed.

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Author notification of paper acceptance on or about **August 26, 2024**
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Detailed deadline information, abstract preparation instructions, and policies can be found at:
https://www.aiaa.org/SciTech/call-for-content/call-for-papers

Make sure to select the "Advancements in Structural Health Monitoring and Non-Destructive Inspection" topic option under "Adaptive Structures" technical disciplines when prompted during submission.

For more information, contact one of the following organizers

Dr. Marcias Martinez	Clarkson University	mmartine@clarkson.edu
Dr. Francis Phillips	Army Research Lab	francis.r.phillips7.civ@army.mil

Call for Papers

The AIAA Structures Technical Committee, Adaptive Structures Technical Committee, and the Materials Technical Committee are sponsoring a Joint Special Session on

AI/ML for Materials and Structures

AIAA SciTech 2025
January 6-10, 2025
Orlando, FL

The AIAA (American Institute of Aeronautics and Astronautics) Structures and Materials Technical Committees solicit papers with recent research, technological advancements, and systems-level perspectives in Artificial Intelligence and Machine Learning for Problems in Structures and Materials within the AIAA SciTech conference. Artificial Intelligence and machine learning (deep learning included) technologies offer the potential to revolutionize and streamline current processes to develop and qualify materials and improve our design process for aerospace structures. These sessions will examine applications of various artificial intelligence and machine learning technologies to develop new material further and structural applications and their application to design and qualification/certification. Applications to all aero-structures, aircraft and spacecraft (such as launch vehicles), are welcome.

The committee welcomes submissions from government, industry, academic, and small businesses. All abstracts are peer-reviewed.

Extended abstracts of no less than 1,000 words are due **May 23, 2024**
Final manuscript due **December 2, 2024**

Detailed deadline information, abstract preparation instructions, and policies can be found at:
https://www.aiaa.org/SciTech/call-for-content/call-for-papers

Make sure to select the "AI/ML for Materials and Structures" topic option under "Materials" or "Structures" technical discipline when prompted during submission.

For more information, contact one of the following organizers:

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Call for Papers

The AIAA Structures Technical Committee and the Materials Technical Committee are sponsoring a Joint Special Session on

Structures and Materials in Extreme Environments

AIAA SciTech 2025
January 6-10, 2025
Orlando, FL

The AIAA (American Institute of Aeronautics and Astronautics) Structures Technical Committee and the Materials Technical Committee are soliciting papers with recent research, technological advancements, and systems-level perspectives on Structures and Materials within Extreme Environments within the AIAA SciTech conference. It is the intention to examine advances including:

- Special considerations for materials, design, analysis, and testing of structures in extreme environments (e.g. hypersonic; entry descent, and landing; aircraft and rocket engine; space/planetary exploration; and cryogenic applications)
- Design, analysis, and test methods for materials in extreme environments (e.g. additive structures, lattice structures, high temperature composites)
- Design and analysis methods for combined and/or coupled loads, including modeling, design optimization, and multi-disciplinary analysis (fluid, thermal, and structural interactions; optics; deployable structures)

The committee welcomes submissions from government, industry, academic, and small businesses. All abstracts are peer-reviewed.

Extended abstracts of no less than 1,000 words are due **May 23, 2024**
Final manuscript due **December 2, 2024**

Detailed deadline information, abstract preparation instructions, and policies can be found at:
https://www.aiaa.org/SciTech/call-for-content/call-for-papers

Make sure to select the "Structures and Materials in Extreme Environments" topic option under "Structures" or "Materials" technical discipline when prompted during submission.

For more information, contact one of the following organizers:

Marlana Goldsmith	Jet Propulsion Laboratory	marlana.b.goldsmith@jpl.nasa.gov
Ellen McIsaac	Lockheed Martin	ellen.b.mcisaac@lmco.com