Call for Papers

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

3D Woven Composites for Materials and Structures

AIAA SciTech 2024
January 8-12, 2024
Orlando, FL

The AIAA (American Institute of Aeronautics and Astronautics) Structures and the Materials Technical Committees solicits papers with recent research, technological advancements, and systems-level perspectives on **3D Woven Composites for Materials and Structures** within the AIAA SciTech conference. It is the intention to examine advances relevant to aerospace materials and structures including:

- Design, analysis, and characterization of 3D woven materials and structures
- Novel manufacturing techniques for 3D woven preforms and composite structures
- New analysis methods for 3D woven material and structural design and evaluation
- Imaging and microstructural evaluation of 3D woven materials and structures
- Novel observations of material and structural response characteristics resulting from mechanical and/or thermal loading
- Process modeling of 3D woven materials and structural components, including weaving, compaction, infusion, and/or cure of 3D woven preforms
- Integration of process and performance predictions of 3D woven composites
- Qualification/certification approaches and challenges for 3D woven materials and structures

The committee welcomes submissions from government, industry, academic, and small businesses. All abstracts will be evaluated by qualified individuals from these sectors.

Extended abstracts of no less than 1,000 words are due **May 25, 2023**
Author notification of paper acceptance on or about **August 25, 2023**
Final manuscript due **December 4, 2023**

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

Make sure to select the 3D Woven Composites for Materials and Structures" topic option under "Materials" or "Structures" when prompted during submission.

For more information, contact one of the following organizers:

Hülya Cebeci	İstanbul Technical University	hulya.cebeci@itu.edu.tr
Dianyun Zhang	Purdue University	dianyun@purdue.edu

Call for Papers

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

Artificial Intelligence and Machine Learning for Materials and Structures

AIAA SciTech 2024
January 8-12, 2024
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 Materials and Structures** 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 will be evaluated by qualified individuals from these sectors.

Extended abstracts of no less than 1,000 words are due **May 25, 2023**
Author notification of paper acceptance on or about **August 25, 2023**
Final manuscript due **December 4, 2023**

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

Make sure to select the "Artificial Intelligence and Machine Learning for Materials and Structures" topic option under "Materials" or "Structures" when prompted during submission.

For more information, contact one of the following organizers:

Yumeng Li	University of Illinois	yumengl@illinois.edu
Steven Wanthal	The Boeing Company	steven.wanthal@boeing.com

Call for Papers

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

Design and Analysis of Structures and Materials in Extreme Environments

AIAA SciTech 2024
January 8-12, 2024
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 **Design and Analysis of Structures and Materials in 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 will be evaluated by qualified individuals from these sectors.

Extended abstracts of no less than 1,000 words are due **May 25, 2023**
Author notification of paper acceptance on or about **August 25, 2023**
Final manuscript due **December 4, 2023**

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

Make sure to select the "Design and Analysis of Structures and Materials in Extreme Environments" topic option under "Materials" or "Structures" 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

Call for Papers

The AIAA Materials Technical Committee is soliciting abstracts for a Special Session on

Fatigue and Fracture

AIAA SciTech 2024
January 8-12, 2024
Orlando, FL

The AIAA (American Institute of Aeronautics and Astronautics) Materials Technical Committee solicits papers with recent research, technological advancements, and systems-level perspectives in the domains of **Fatigue and Fracture** mechanics research, development, and application within the AIAA SciTech conference. It is the intention to examine advances including underlying theoretical principles, fundamental improvements to the state of the art in experimental, computational, and/or modeling practices, verification, validation, and uncertainty quantification, standard and nonstandard testing, and additional relevant topics as proposed.

- Durability and damage tolerance
- Material behavior including composites, metals, ceramics, and polymers
- Environmental influences
- Computational and analytical modeling
- Experimental mechanics
- Testing and characterization procedures
- Sustainment and life extension
- Verification and validation
- Post-impact performance
- No-growth and slow-growth design criteria

The committee welcomes submissions from government, industry, academia, and small businesses. All abstracts will be evaluated by qualified individuals from these sectors.

Extended abstracts of no less than 1,000 words are due **May 25, 2023**
Author notification of paper acceptance on or about **August 25, 2023**
Final manuscript due **December 4, 2023**

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

Make sure to select the "Fatigue and Fracture" topic option under "Materials" when prompted during submission.

For more information, contact one of the following organizers:

Ibrahim Guven	Virginia Commonwealth University	iguven@vcu.edu
Joe Schaefer	The Boeing Company	joseph.d.schaefer@boeing.com

Call for Papers

The AIAA Materials Technical Committees is soliciting abstracts for a Special Session on

High Performance Materials for Extreme Environments

AIAA SciTech 2024
January 8-12, 2024
Orlando, FL

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

- Materials for hypersonic applications, especially for use at Mach 10-20
- Modeling, formulation, and processing of materials (metals and composites) for load bearing or pressure vessel applications
- Performance of materials and structures at extreme high and extreme low temperatures
- Materials for emerging entry, descent, and recovery systems & technologies
- Development of thermal and environmental barrier coatings
- Assessment and prevention of materials degradation due to space environment hazards such as ionizing radiation, atomic oxygen, spacecraft charging, and micrometeoroids
- Emerging propulsion systems
- Innovative test methodologies, simulations, and platforms

The committee welcomes submissions from government, industry, academic, and small businesses. All abstracts will be evaluated by qualified individuals from these sectors.

Extended abstracts of no less than 1,000 words are due **May 25, 2023**
Author notification of paper acceptance on or about **August 25, 2023**
Final manuscript due **December 4, 2023**

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

Make sure to select the "Materials for Extreme Environments" topic option under "Materials" when prompted during submission.

For more information, contact one of the following organizers:

Bilim Atli-Veltin	TU Delft	b.atli-veltin@tudelft.nl
Terrisa Duenas	Duenas Consulting, LLC	terrisaduenas@gmail.com
Jessica Piness	Redwire Space, Inc.	jmpiness@gmail.com

Call for Papers

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

High Strain Composite Materials and Structures

AIAA SciTech 2024
January 8-12, 2024
Orlando, FL

The AIAA (American Institute of Aeronautics and Astronautics) Spacecraft Structures Technical Committee and the Materials Technical Committee are soliciting papers with recent research, technological advancements, and systems-level perspectives on **High Strain Composite Materials and Structures** within the AIAA SciTech conference. It is the intention to cover topics including:

- Analysis, numerical modeling, and experimental characterizations of high strain composite materials
- Material failure, structural instability, and mechanics of high strain composite structures
- Novel structural concepts enabled by high strain composites
- Effects of extreme environments on high strain composite materials and structures
- Any other topics relevant to high strain composites

The committees welcome submissions from government, industry, academic, and small businesses. All abstracts will be evaluated by qualified individuals from these sectors.

Extended abstracts of no less than 1,000 words are due **May 25, 2023**
Author notification of paper acceptance on or about **August 25, 2023**
Final manuscript due **December 4, 2023**

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

Make sure to select the "High Strain Composite Materials and Structures" topic option under "Materials" or "Spacecraft Structures" when prompted during submission.

For more information, contact one of the following organizers:

Francisco Lopez Jimenez	University of Colorado Boulder	francisco.lopezjimenez@colorado.edu
Xin Ning	Pennsylvania State University	xzn12@psu.edu
Maria Sakovsky	Stanford University	sakovsky@stanford.edu

Call for Papers

The AIAA Materials Technical Committee and the Digital Engineering Integration Committee are sponsoring a Joint Special Session on

ICME & the Digital Thread

AIAA SciTech 2024
January 8-12, 2024
Orlando, FL

The AIAA (American Institute of Aeronautics and Astronautics) Materials Technical and Digital Engineering Integration Committees are soliciting papers with recent research, technological advancements, and systems-level perspectives that address the various issues associated with capturing, storing, analyzing, and disseminating information, data artifacts, and linkages constituting **the digital thread and integrated computational materials engineering (ICME)** studies within the AIAA SciTech conference. Specifically, papers discussing material data management activities and Machine Learning surrogate models in the context of the required elements associated with digital twins and digital thread will be considered; that is Data, Informatics, and Visualization as discussed in the NASA 2040 Vision (CR 2018-219771). The goal is to provide a forum for discussion of academia, industrial, and government digital thread activities that enable successful implementation of ICME best practices and culture.

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 25, 2023**
Author notification of paper acceptance on or about **August 25, 2023**
Final manuscript due **December 4, 2023**

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

Make sure to select the "ICME & the Digital Thread" topic option under "Materials" or "Digital Engineering" when prompted during submission.

For more information, contact one of the following organizers:

John Matlik	Rolls Royce Corporation	John.matlik@rolls-royce.com
Dianyun Zhang	Purdue University	dianyun@purdue.edu

Call for Papers

The AIAA Materials Technical Committees is soliciting abstracts for a Special Session on

Materials for Additive Manufacturing

AIAA SciTech 2024
January 8-12, 2024
Orlando, FL

The AIAA (American Institute of Aeronautics and Astronautics) Materials Technical Committee solicits papers with recent research, technological advancements, and systems-level perspectives on **Materials for Additive Manufacturing** for the AIAA SciTech conference. These sessions will examine advances in Additive Manufacturing, also sometimes known as 3D Printing. Any materials-related aspect of additive manufacturing that is relevant to aerospace is acceptable for papers, including but not limited to:

- Metals and Alloys: Steel, Titanium and Aluminum based alloys, Superalloys, high entropy alloys etc.
- AM for component design: multi-material printing, spatially and functionally gradient designs, etc.
- Computational modeling of AM processes and resulting material properties
- Constitutive models for Additively Manufactured materials
- Multi-scale structural analysis modeling for Additively Manufactured materials
- Design of structures to enable efficient additive manufacturing
- Additive Manufacturing for composites
- Additive Manufacturing for ceramics and refractory materials
- Process monitoring and control methods
- In-space additive manufacturing
- Testing and inspection
- Materials discipline capabilities for certification

The committee welcomes submissions from government, industry, academic, and small businesses. All abstracts will be evaluated by qualified individuals from these sectors. While this session is focused on additive materials and their processing, it should be noted that the Structures Technical Committee also has a related session entitled "Additive Structures" which is focused on structural applications of additive manufacturing. Authors are encouraged to submit their abstract to the most relevant session.

Extended abstracts of no less than 1,000 words are due **May 25, 2023**
Author notification of paper acceptance on or about **August 25, 2023**
Final manuscript due **December 4, 2023**

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

Make sure to select the "Materials for Additive Manufacturing" topic option under "Materials" when prompted during submission.

For more information, contact one of the following organizers:

Ajit Achuthan	Clarkson University	aachutha@clarkson.edu
Bilim Atli-Veltin	TU Delft	b.atli-veltin@tudelft.nl
Steven Wanthal	The Boeing Company	steven.wanthal@boeing.com

Call for Papers

The AIAA Materials Technical Committee is soliciting abstracts for a Special Session on

Multifunctional Materials for Aerospace

AIAA SciTech 2024
January 8-12, 2024
Orlando, FL

The AIAA (American Institute of Aeronautics and Astronautics) Materials Technical Committees solicit papers with recent research, technological advancements, and systems-level perspectives on **Multifunctional Materials for Aerospace** within the AIAA SciTech conference. It is the intention to examine advances including:

- Area of interest 1: Multifunctional nano-composite materials and applications
- Area of interest 2: Piezoelectric/pyroelectric materials and applications
- Area of interest 3: Piezoresistive/piezoresistance materials and applications
- Area of interest 4: Photo sensitive materials and applications
- Area of interest 5: Temperature sensitive materials and applications
- Area of interest 6: Electroactive/Magneto-active materials and applications
- Area of interest 7: Shape memory materials and applications
- Area of interest 8: Dielectric materials and applications
- Area of interest 9: Self-healing materials and Structures
- Area of interest 10: Any new functional/multifunctional material discoveries

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 25, 2023**
Author notification of paper acceptance on or about **August 25, 203**
Final manuscript due **December 4, 2023**

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

Make sure to select the "Multifunctional Materials for Aerospace" topic option under "Materials" when prompted during submission.

For more information, contact one of the following organizers:

Donghyeon Ryu	New Mexico Tech	donghyeon.ryu@nmt.edu
Tian-Bing Xu	Old Dominion University	txxu@odu.edu

Call for Papers

The AIAA Materials Technical Committee is soliciting abstracts for a Special Session on

Multiscale Modeling

AIAA SciTech 2024
January 8-12, 2024
Orlando, FL

The AIAA (American Institute of Aeronautics and Astronautics) Materials Technical Committee solicits papers with recent research, technological advancements, and systems-level perspectives on **Multiscale Modeling** to be presented in special sessions within the AIAA SciTech conference. It is the intention to examine advances including:

- The development of physics-based multiscale modeling and simulation
- Unique challenges in multiscale modeling
- New or novel techniques for multiscale modeling
- Cross-scale material phenomena investigated by multiscale modeling and simulation
- Uncertainty quantification and model validation in multiscale modeling and simulation
- Integration of experiments and simulations for multiscale modeling
- Micromechanics
- Multiscale modeling of damage, degradation, and failure

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

Extended abstracts of no less than 1,000 words are due **May 25, 2023**
Author notification of paper acceptance on or about **August 25, 2023**
Final manuscript due **December 4, 2023**

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

Make sure to select the "Multiscale Modeling" topic option under "Materials" when prompted during submission.

For more information, contact one of the following organizers:

Name	Affiliation	Email
Ibrahim Guven	Virginia Commonwealth University	iguven@vcu.edu
Yumeng Li	University of Illinois at Urbana Champaign	Yumengl@illinois.edu

Call for Papers

The AIAA Materials Technical Committee is soliciting abstracts for a Special Session on

Nanostructured Materials

AIAA SciTech 2024
January 8-12, 2024
Orlando, FL

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

- Hierarchical methods development including molecular simulations
- Process-structure-property relationships
- Performance analysis
- Experimental techniques and characterization
- Multifunctional properties and approaches
- Synthesis and processing of nanostructured materials including additive manufacturing.

Material forms may include but are not limited to: nanowires, nanotubes, nanoparticle and nanofiber reinforced composites and assemblies, coatings, thin films, nanocrystalline metals, nanostructured ceramics, functionally graded materials, and multi-scale hierarchical materials concepts. Of special interest is the development of validated computational and analytical methods that address techniques for bridging length and time scales with the intent of providing efficient, high performance, engineering materials to the aerospace community.

The committee welcomes submissions from government, industry, academic, and small businesses. All abstracts will be evaluated by qualified individuals from these sectors.

Extended abstracts of no less than 1,000 words are due **May 25, 2023**
Author notification of paper acceptance on or about **August 25, 2023**
Final manuscript due **December 4, 2023**

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

Make sure to select the "Nanostructured Materials" topic option under "Materials" when prompted during submission.

For more information, contact one of the following organizers:

Joseph Koo	UT Austin	jkoo@mail.utexas.edu
Samit Roy	University of Alabama	sroy@eng.ua.edu
Brian Wardle	MIT	wardle@mit.edu

Call for Papers

The AIAA Materials Technical Committee is soliciting abstracts for a Special Session on

Process Modeling of Composites

AIAA SciTech 2024
January 8-12, 2024
Orlando, FL

The AIAA (American Institute of Aeronautics and Astronautics) Materials Technical Committee solicits papers with recent research, technological advancements, and systems-level perspectives on **Process Modeling of Composites** within the AIAA SciTech conference. It is the intention to examine the latest developments in modeling, characterization, and validation of thermoset and thermoplastic polymer composites processing.

The committee welcomes submissions from government, industry, academic, and small businesses. All abstracts will be evaluated by qualified individuals from these sectors.

Extended abstracts of no less than 1,000 words are due **May 25, 2023**
Author notification of paper acceptance on or about **August 25, 2023**
Final manuscript due **December 4, 2023**

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

Make sure to select the "Process Modeling of composites" topic option under "Materials" when prompted during submission.

For more information, contact one of the following organizers:

Joshua Dustin	Boeing	joshua.s.dustin@boeing.com
Marianna Maiaru	University of Massachusetts Lowell	Marianna_maiaru@uml.edu

Call for Papers

The AIAA Materials Technical Committees is soliciting abstracts for a Special Session on

Self-Healing Composite Materials and Structures

AIAA SciTech 2024
January 8-12, 2024
Orlando, FL

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

- Recent research in the field of mechanical behavior characterization (numerical, experimental and analytical) of self-healing (SH) composite materials and structures.
- Particular attention is on the constitutive modelling of phenomena including plastic, inelastic, damage and fracture behavior, as well as performance recovery of these structures.

The committee welcomes submissions from government, industry, academic, and small businesses. All abstracts will be evaluated by qualified individuals from these sectors.

Extended abstracts of no less than 1,000 words are due **May 25, 2023**
Author notification of paper acceptance on or about **August 25, 2023**
Final manuscript due **December 4, 2023**

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

Make sure to select the "Self-Healing Composite Materials and Structures" topic option under "Materials" when prompted during submission.

For more information, contact one of the following organizers:

Samit Roy	University of Alabama	sroy@eng.ua.edu
Ivica Smojver	University of Zagreb, FMENA	ismojver@fsb.hr

Call for Papers

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

Smart Materials for Adaptive Applications

AIAA SciTech 2024
January 8-12, 2024
Orlando, FL

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

- Area of interest 1: Smart materials and structures, such as, energy conversion and storage materials and devices, piezoelectric materials and devices, shape memory materials and structures, piezoresistive materials and structures, elastic tunable materials and structures, self-healing materials and structures, etc.;
- Area of interest 2: Smart materials and structures for adaptive controls;
- Area of interest 3: Advanced manufacturing technologies for smart and adaptive structures;
- Area of interest 3: Comments and perspective of new materials for advanced adaptive controls.

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 25, 2023**
Author notification of paper acceptance on or about **August 25, 2023**
Final manuscript due **December 4, 2023**

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

Make sure to select the "Smart Materials for Adaptive Applications" topic option under "Adaptive Structure" or "Materials" when prompted during submission.

For more information, contact one of the following organizers:

Francis Phillips	Army Research Laboratory	francis.r.phillips7.civ@army.mil
Tian-Bing Xu	Old Dominion University	txxu@odu.edu

Call for Papers

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

Survivable Materials and Structures

AIAA SciTech 2024
January 8-12 2024
Orlando, Florida

The AIAA (American Institute of Aeronautics and Astronautics) Materials Technical Committee and the Survivability Technical Committee are soliciting papers with recent research, technological advancements, and systems-level perspectives on **Survivable Materials and Structures** within the AIAA SciTech conference. Survivability improvements for air and space systems increasingly rely on the development of new structural designs, which must be lightweight but also satisfy a demanding set of mechanical, thermal, electromagnetic, or other requirements. Topics of interest include but are not limited to design, analysis, modeling, optimization, and/or testing of:

- Novel structural designs for impact mitigation and stress wave management
- Crashworthy structures
- Multifunctional structures for survivability
- Designs that incorporate structural health monitoring or self-healing
- Additively manufactured structural components with properties optimized for specific applications
- Improved ballistic protection systems for rotary-wing aircraft
- Improved thermal protection systems for spacecraft
- Low observability structures
- Thermal protection system materials, including polymer and ceramic matrix composites

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 **June 1, 2023**
Author notification of paper acceptance on or about **August 31, 2023**
Final manuscript due **December 5, 2023**

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

Make sure to select the "Survivable Materials and Structures" topic option under "Materials" or Survivability" when prompted during submission.

For more information, contact one of the following organizers:

Joshuah Hess	Survivability	joshuah.hess@gmail.com
Jessica Piness	Materials	jmpiness@gmail.com

Call for Papers

The AIAA Materials Technical Committee is soliciting abstracts for a Special Session on

Testing and Characterization of Materials

AIAA SciTech 2024
January 8-12, 2024
Orlando, FL

The AIAA (American Institute of Aeronautics and Astronautics) Materials Technical Committee is very pleased to announce a call for papers to be presented in special sessions on **Testing and Characterization of Materials** within the AIAA SciTech conference. These sessions will examine advances in testing and characterization of materials to be utilized in any aircraft, aerospace, spacecraft, hypersonic, or other vehicle or structure. Any aspect of this broad area relevant to aerospace is acceptable for papers, including:

- Testing and characterization programs, results, or material selection efforts
- Unique challenges in testing and characterization
- New or novel materials testing techniques
- Overview or survey papers addressing available databases or consortiums
- New or novel instrumentation methods or instrumentation applications for new material types
- Extreme environment materials testing or characterization
- Analog or performance testing of materials, even in structural configurations

To this end, the Materials Technical Committee is soliciting papers with recent research, technological advancements, and systems level perspectives in the above areas. The committee welcomes submissions from government, industry, academic, and small businesses.

Extended abstracts of no less than 1,000 words are due **May 25, 2023**
Author notification of paper acceptance on or about **August 25, 2023**
Final manuscript due **December 4, 2023**

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

Make sure to select the "Testing and Characterization of Materials" topic option under "Materials" when prompted during submission.

For more information, contact one of the following organizers:

Joseph Koo	UT Austin	jkoo@mail.utexas.edu
Evan Pineda	NASA Glenn Research Center	evan.j.pineda@nasa.gov

Call for Papers

The AIAA Materials Technical Committee, the Digital Engineering Integration Committee, and the Non-Deterministic Approaches Technical Committee are sponsoring a Joint Special Session on are sponsoring a Joint Special Session on

Uncertainty Quantification and Model Validation

AIAA SciTech 2024
January 8-12, 2024
Orlando, FL

The AIAA (American Institute of Aeronautics and Astronautics) Materials Technical Committee, the Digital Engineering Integration Committee (DEIC), and the Non-Deterministic Approaches (NDA) Technical Committee are soliciting papers with recent research, technological advancements, and systems-level perspectives on **Uncertainty Quantification and Model Validation** within the AIAA SciTech conference. It is the intention to examine advances including:

- Stochastic models, validation, verification, and uncertainty quantification for predictive computational science
- Multifidelity uncertainty quantification
- Sensitivity analysis

The committee welcomes submissions from government, industry, academic, and small businesses. All abstracts will be evaluated by qualified individuals from these sectors.

Extended abstracts of no less than 1,000 words are due **May 25, 2023**
Author notification of paper acceptance on or about **August 25, 2023**
Final manuscript due **December 4, 2023**

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

Make sure to select the "Uncertainty Quantification and Model Validation" topic option under "Materials", "ICME" or "NDA" when prompted during submission.

For more information, contact one of the following organizers:

Pinar Acar	Virginia Tech	pacar@vt.edu
Steven M. Arnold	NASA	steven.m.arnold@nasa.gov
Bilim Atli-Veltin	TU Delft	b.atli-veltin@tudelft.nl
Pankaj Joshi	ZAL	pankaj.joshi@zal.aero
Marianna Maiaru	U Mass Lowell	marianna_maiaru@uml.edu