First Name	Last Name	Session	Day	Time	Submission ID	Title of the Talk
Erasmo	**Carrera**	**PT**	**10-Aug-23**	**08:00-08:50**	**PT4**	**Recent Advances of Carrera Unified Formulation in Mechanics**
C.W.	**Lim**	**PT**	**09-Aug-23**	**08:55-09:45**	**PT2**	**Theory, Numerical Analysis, and Experiments of Acoustic and Seismic Metamaterials and Metastructures**
Arif	**Masud**	**PT**	**09-Aug-23**	**01:00-01:50**	**PT3**	**A Class of Novel Numerical Methods for Layered Additive Manufacturing and Data-driven Discrepancy Modeling**
Glaucio	**Paulino**	**PT**	**09-Aug-23**	**08:05-08:55**	**PT1**	**Origami Engineering**
Narayana	Aluru	4B	09-Aug-23	04:45-05:15	68	Data-Driven Multiscale Modeling
Steven	Arnold	1A	09-Aug-23	10:00-10:30	75	2040 Vision Study: NASA's TTT Implementation Activities
Weiqiu	Chen	1D	09-Aug-23	10:00-10:30	143	Waves in hyperelastic material structures and their manipulations
Kent	Danielson	1B	09-Aug-23	10:00-10:30	12	Modeling flexure with higher-order finite elements in lumped-mass explicit methods
Ney	Dumont	5B	10-Aug-23	09:00-09:30	32	The boundary element method for potential and elasticity problems: consistency, convergence theorem, and machine-precision two-dimensional implementation
Somnath	Ghosh	6B	10-Aug-23	11:15-11:45	43	Data-Driven Parametrically Upscaled Coupled Constitutive and Damage Models for Nonuniform Unidirectional Multifunctional Composites
Brandon	Hearley	4A	09-Aug-23	03:45-04:15	152	Extending the Application Table To Additive Manufacturing: Connecting Material Processes to Structural Performance
Marwan	Khraisheh	1C	09-Aug-23	10:00-10:30	159	A Framework for Modeling and Optimizing Gas Pressure Forming of Lightweight Alloys
Thomas	Lacy Jr.	6B	10-Aug-23	11:45-12:15	170	Micro- to Macroscale Effects on High Velocity Impacts to Amorphous Polymers
Emilio Carlos	Nelli Silva	4B	09-Aug-23	04:15-04:45	33	Optimizing Fiber-Reinforced Structures using Topology Optimization and the Tsai-Hill Criterion as a Stress Constraint
Alfonso	Pagani	5A	10-Aug-23	10:10-10:40	36	Modeling of micro- to macro-scale uncertain and deterministic defects of variable stiffness composites
Jerry	Qi	5C	10-Aug-23	09:00-09:30	102	Multimaterial Additive Manufacturing by Integrating Digital Light Processing and Direct Ink Writing
Maria Amélia	Ramos Loja	3C	09-Aug-23	02:00-02:30	160	Modeling of Double-Double Composite Structures Integrating Piezoelectric Patches
Trenton	Ricks	5A	10-Aug-23	09:00-09:30	65	The NASA Multiscale Analysis Tool: An Enabling Platform for Achieving Vision 2040
Jani	Romanoff	6A	10-Aug-23	10:45-11:15	72	A Review on Non-Classical Continuum Mechanics with Applications in Marine Engineering
M Taher	Saif	6B	10-Aug-23	10:45-11:15	94	Phase transition in multicellular systems
Arun	Srinivasa	5B	10-Aug-23	10:10-10:40	169	GraFEA: Modeling Fracture in Quasibrittle Materials using a Stochastic Approach
Joshua	Stuckner	3A	09-Aug-23	02:00-02:30	95	Bypassing the Speed/Accuracy Tradeoff with Accurate Machine Learning Surrogates for Composite Modeling
Liqun	Tang	5D	10-Aug-23	09:00-09:30	13	Effect of strain rate on mechanical properties of PVA hydrogels ranging from low, intermediate to high strain rates
Anthony	Waas	4B	09-Aug-23	03:45-04:15	168	Validated Computational Models for Progressive Damage and Failure of Aero-structural Laminates
Ji	Wang	3D	09-Aug-23	02:00-02:30	38	The Vibration Analysis of Layered Annular Cylinders for the Determination of Material Properties
Wenbin	Yu	3B	09-Aug-23	02:00-02:30	47	Mechanics of Structure Genome and Its Recent Developments
Farid	Abed	5E	10-Aug-23	09:20-09:40	125	Modeling the Effects of Dynamic Strain Aging on Thermomechanical Behavior in Commercially Pure Titanium
Ajit	Achuthan	4A	09-Aug-23	04:15-04:35	156	Design, development, and testing of a Ti64 structural component with spatially varying properties
Mohammad	Albakri	5B	10-Aug-23	09:30-09:50	144	Electromechanical Impedance Signatures for Part-Authentication, a Data-driven Modeling Approach
Abhay	Bambole	3C	09-Aug-23	02:30-02:50	134	Exact Solution of Functionally Graded Beams Subjected to Various Types of Transverse Loads
Stephen	Beissel	1B	09-Aug-23	10:30-10.50	63	Mortar Contact between Higher-Order Elements in Explicit Dynamics
Dounia	Boushab	3C	09-Aug-23	03:10-03:30	40	A comparative study of damage mechanisms in PRSEUS carbon-epoxy composites due to lightning strikes and fire exposure
Nathan	Brown	2C	09-Aug-23	11:20-11:40	87	Deep Reinforcement Learning for the Design of Mechanical Metamaterials with Customizable Nonlinear Deformation Responses
Robert	Browning	1B	09-Aug-23	10:50-11:10	141	Exploiting Second-Order Pyramid Elements for Hex-Dominant Meshing in Nonlinear Explicit Solid Dynamics
Samir	Candelaria Caraballo	4C	09-Aug-23	03:45-04:15	52	Sandwich Core Structures with Internal Non-prismatic Reinforcements

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First Name	Last Name	Session	Day	Time	Submission ID	Title of the Talk
Bruno	Castanié	4C	09-Aug-23	04:15-04:35	51	Local buckling on large sandwich panels applied to light aviation
Keren	Chen	3D	09-Aug-23	02:50-03:10	113	Vertical dynamics analysis and multi-objective optimization of electric vehicle considering the integrated powertrain system
Alvaro	Diaz Flores Caminero	5A	10-Aug-23	09:30-09:50	91	Topology Optimization with Material Uncertainties via Multifidelity
Shuanglong	Geng	2B	09-Aug-23	11:40-12:00	157	A chemo-mechanical coupling model for a bilayer electrode: The effects of external loads on battery performances
Somnath	Ghosh	2A	09-Aug-23	11:20-11:40	41	Data-Driven Bayesian Model-Based Prediction of Fatigue Crack Nucleation in Ni-based Superalloys
Andrew	Groeneveld	4C	09-Aug-23	04:35-04:55	30	An immersed variational multiscale meshfree method for elastic analysis of composite materials
Yanhong	Guan	5D	10-Aug-23	09:50-10:10	122	Subwavelength Temperature-controlled Acoustic Topological Interface States in Split Hollow Spheres
Yuchong	Guan	5E	10-Aug-23	10:00-10:20	148	Uncertain Quasi-Static and Nonlinear Dynamic Analysis of Compressible Viscoelastic Dielectric Elastomers Based on Non-Probabilistic Credible Bayesian Reliability Analysis Method
Junyan	He	4A	09-Aug-23	04:55-05:15	74	Crystal Plasticity Simulations of Microstructures with Porosity: Comparing the Effects of Voxel and Conformal Meshes
Brandon	Hearley	1A	09-Aug-23	10:50-11:10	77	Capturing, Analyzing, Maintaining, and Disseminating Experimental Data in a Robust Material Information Management System
Jeffrey	Heylmun	2B	09-Aug-23	11:20-11:40	14	Validation of the open-source airblast solver blastFoam in near-field explosive environments.
Shawn	Hinnebusch	4A	09-Aug-23	04:35-04:55	79	Enabling Part-Scale Melt Pool Prediction in Laser Powder Bed Fusion via a Global-Local Thermal Process Simulation Model
Yanchuan	Hui	3A	09-Aug-23	03:10-03:30	146	A Hierachical Beam Model in the framework of Data-driven Computational Mechanics
Jun	Jiang	1D	09-Aug-23	10:50-11:10	118	Computation of quasi-periodic responses in structures through a variable-coefficient harmonic balance method
Gaurab	Khanra	6A	10-Aug-23	11:35-11:55	28	A re-look into the modelling aspects of Eringen's strain-driven nonlocal Euler-Bernoulli nanobeam bending problems.
Mihkel	Kõrgesaar	6A	10-Aug-23	11:15-11:35	88	Applicability of equivalent single layer approach for stiffened panels loaded transverse to stiffener direction
Kalyan Raj	Kota	4C	09-Aug-23	04:55-05:15	165	Effects of Layup and Impact Orientation on Hypervelocity Impact Response of Carbon Fiber Reinforced Polymer Composites
Lucia	Lang	3C	09-Aug-23	02:50-03:10	64	Design and Fabrication of Origami-Inspired Flat-Packable Vehicle for Unconventional Applications
Cheng	Li	1D	09-Aug-23	10:30-10.50	108	Nonlinear thermal buckling of rotationally restrained FG-CNTRC shallow arches under uniform radial loading
Wei	Li	2A	09-Aug-23	11:40-12:00	78	Phase-Field DeepONet: Physics-informed deep operator neural network for fast simulations of pattern formation governed by gradient flows of free-energy functionals
Wei	Li	3A	09-Aug-23	02:30-02:50	82	Deep operator machine learning framework for modeling all-solid-state batteries
Mingzhe	Li	5C	10-Aug-23	09:50-10:10	116	Additive manufacturing of glass microstructures at mild conditions
Bing	Li	5D	10-Aug-23	09:30-09:50	120	Tunable manipulations of high-order elastic-wave diffractions by building-block-type metasurfaces
Chen	Liang	6D	10-Aug-23	11:35-11:55	21	Thermal vibration analysis of sandwich cylindrical shells with porous FGM surface layers
Yiheng	Liu	3D	09-Aug-23	03:10-03:30	114	Nonlinear Vibration and Superharmonic Resonance Analysis of NW Wind Power Planetary Gear System
Sam	Martin	5E	10-Aug-23	09:40-10:00	83	The Role of Randomly Packed Particles on Macroscopic Elastic Bonded Grain Properties
Paul	Mason	1A	09-Aug-23	10:30-10.50	66	The historical and future role of CALPHAD in a 2040 Vision for Integrated Computational Materials Design and Engineering
Arif	Masud	5E	10-Aug-23	09:00-09:20	162	Thermo-Chemo-Mechanical Processes and Material Evolution in Porous Solids Permeated with Reactive Fluids
Daniel	Ocampo	3A	09-Aug-23	02:50-03:10	19	AtomDNN: A Machine Learning Package for Atomistic Simulations
Yudong	Pan	6D	10-Aug-23	11:55-12:15	153	A thermodynamic model of phase transition of poly(N-isopropylacrylamide) hydrogels in ionic solutions
Kyoungsoo	Park	5B	10-Aug-23	09:50-10:10	8	Image-based analysis of complex microstructure using virtual element method

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Red Text indicated Keynote Talks

First Name	Last Name	Session	Day	Time	Submission ID	Title of the Talk
Matt	Pharr	6C	10-Aug-23	10:45-11:15	31	Coupling Among Mechanical, Structural, and Electrical Properties during Metal-Insulator Transitions in VO2 Thin Films
Aaron	Stebner	5A	10-Aug-23	09:50-10:10	149	Physics-Informed, Data-Driven ICME Framework for Shape Memory Alloys
K.R.V.	Subramanian	6C	10-Aug-23	11:35-11:55	5	Pre-filled multi walled carbon nanotubes with magnetic nanoparticles for magnetic read-head applications
Xin	Sun	2D	09-Aug-23	11:20-11:40	124	Symplectic approach for free vibration of two-dimensional decagonal quasicrystal cylindrical shells
Xiaohao	Sun	5C	10-Aug-23	09:30-09:50	107	Machine learning-enabled forward prediction and inverse design of 4D-printed active plates
Thaer	Syam	1C	09-Aug-23	10:50-11:10	163	Laser Directed Energy Deposition of NiCoCr Medium Entropy Alloys
Viswanath	Talasila	6C	10-Aug-23	11:15-11:35	4	Sodium ion capacitors/battery with use of prefilled multi-walled carbon nanotubes in cathode
Kaiyuan	Tian	3D	09-Aug-23	02:30-02:50	129	Dynamic Modeling and Nonlinear Flutter Analysis of a Folding Wing with Variable Folding Angle
Sander	Van den Broek	3B	09-Aug-23	03:10-03:30	37	Higher Order Wedge Element with Improved 3D Stresses
Wan	Wan	3B	09-Aug-23	02:50-03:10	138	A Combined Variational Multiscale and Phase Field Approach for Coupled Thermomechanical Problems with Interface Separation, Crack Propagation, and Heat Transport
Aiwen	Wang	4D	09-Aug-23	04:05-04:25	139	Dynamics of Graphene Nanoplatelets Reinforced Composite Structures
Jiamei	Wang	4D	09-Aug-23	04:45-05:05	67	Theoretical analysis of a tri-hybrid multi-stable vibration-based energy harvester with auxetic structures under ultra-low-frequency excitations
Jianfei	Wang	5D	10-Aug-23	10:10-10:30	133	Designing a broadband flexural wave energy harvester based on double defect modes of Phononic crystals
Guifeng	Wang	6D	10-Aug-23	10:45-11:15	24	An Anisotropic Higher-order Topological Insulator for Frequency-based Wave Routing and Topological Corner States
Mingchun	Wu	1C	09-Aug-23	10:30-10.50	154	Size effect on the mechanical property of Hastelloy X parts manufactured by selective laser melting
Jingjian	Xu	4D	09-Aug-23	04:25-04:45	135	Vibration and noise radiation mitigation in the natural gas pipeline using the novel attachable resonant acoustic metamaterials
Zhutian	Xu	6C	10-Aug-23	11:55-12:15	9	Co-evolution of damage and microstructure during the ductile fracture of titanium sheet metals via combined in-situ XCT and ex-situ EBSD observations: the role of twinning-induced recrystallization
JW	Yan	4D	09-Aug-23	03:45-04:05	99	Numerical simulations of nonlinear free vibration of functionally graded graphene-platelet reinforced porous composite plates
Zoe	Yaw	6D	10-Aug-23	11:15-11:35	20	Wave mode conversion through a transmissive binary coding elastic metasurface
Huiming	Yin	6A	10-Aug-23	11:55-12:15	126	Tailoring the thermoelastic properties of a lattice-based composite with prestress
Liang	Yue	5C	10-Aug-23	10:10-10:30	117	Cold programmed shape morphing structures based on grayscale digital light processing 4D printing
Huirong	Zhang	2D	09-Aug-23	11:40-12:00	140	A high-performance electromagnetic energy harvester in rotating scenarios: Design, simulation and experiment
Xiaojia Shelly	Zhang	3B	09-Aug-23	02:30-02:50	136	Inverse design and physical realization of mechanical and magnetic metamaterials
Huijuan	Zhao	2C	09-Aug-23	11:40-12:00	106	Exploring the Solid-State Transformation of 0D Au Nanoparticles to 2D Morphologies

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