

2010 AIAA Journal Index

How to Use the Index

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J10-221 Beamformed Flow-Acoustic Correlations in a Supersonic Jet
J10-270 Prediction of Broadband Shock-Associated Noise Using Reynolds-Averaged Navier-Stokes Computational Fluid Dynamics
J10-137 Effect of Velocity Ratio on Noise Source Distribution of Coaxial Jets
J10-160 Effects of Injection and Main Flow Conditions on Supersonic Turbulent Mixing Structure
J10-188 Large-Eddy Simulation of Jet Mixing in Supersonic Crossflows
J10-205 Computation of High-Speed Coaxial Jets with Fan Flow Deflection
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J10-037 Intermittent Bursting of a Laminar Separation Bubble on an Airfoil
J10-040 Corrugated Tabs for Supersonic Jet Control
J10-194 Strategic Control of Transverse Jet Shear Layer Instabilities
J10-211 Large Eddy Simulation of Stable Supersonic Jet Impinging on Flat Plate
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- J10-256** Shock-Water Column Interaction, from Initial Impact to Fragmentation Onset

- J10-237** Large Eddy Simulation and Experimental Study of a Controlled Coaxial Liquid-Air Jet
J10-116 Improved Drag Correlation for Spheres and Application to Shock-Tube Experiments
J10-180 Effect of Evaporating Droplets on Shock Waves

Plasmadynamics and MHD

- J10-276** Plasma Catalysis for Enhanced-Thrust Single Dielectric Barrier Discharge Plasma Actuators
J10-260 Supersonic Drag Reduction with Repetitive Laser Pulses Through a Blunt Body
J10-136 Three-Dimensional Modeling of Magnetic Nozzle Processes
J10-230 Analytical Solution of Converging Shock Wave in Magnetogasdynamics
J10-198 Influence of Hall Effect on Electrodynamical Heat Shield System for Reentry Vehicles
J10-172 Plasma Volumetric Effects on the Force Production of a Plasma Actuator
J10-028 Characterization of a High-Frequency Pulsed-Plasma Jet Actuator for Supersonic Flow Control
J10-258 High-Order Numerical Method for Magnetohydrodynamic Control of Shock-Induced Separation
J10-075 Impact of Pressure and Temperature on the Performance of Plasma Actuators

Rarefied Flows

- J10-140** Assessment of Bhatnagar-Gross-Krook Approaches for Near Continuum Regime Nozzle Flows

Reacting Flows and Combustion

- J10-138** Simulation of Sandia Flame D Using Velocity-Scalar Filtered Density Function
J10-045 Physics and Regimes of Supersonic Combustion
J10-015 Simulation of Supersonic Combustion Involving H_2 /Air and C_2H_2 /Air
J10-127 Evaluation of the RPM Approach for the Simulation of Broadband Combustion Noise
J10-020 Flame Stabilization in Small Cavities
J10-027 Deriving Features of Reacting Hypersonic Flow from Gradients at a Curved Shock

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- J10-022** Experimental Study of Plasma Flow Control on Highly Swept Delta Wing
J10-053 Experimental Investigation of Flow Separation Control Using an Array of Synthetic Jets
J10-266 High-Lift Airfoil Separation with Dielectric Barrier Discharge Plasma Actuation
J10-098 Compressible Large-Eddy Simulation of Separation Control on a Wall-Mounted Hump
J10-135 Effect of Interaction Strength on Unsteadiness in Shock-Wave-Induced Separations
J10-016 Control of Separation Using Spanwise Periodic Porosity
J10-037 Intermittent Bursting of a Laminar Separation Bubble on an Airfoil
J10-109 Effects of Flexible Fin on Low-Frequency Oscillation in Post-Stalled Flows
J10-165 Aerothermodynamics Behind a Blunt Body at Superorbital Speeds
J10-149 Turbulent Boundary-Layer Separation Control with Single Dielectric Barrier Discharge Plasma Actuators

- J10-155** Fluidic Control of a Turret Wake: Aerodynamic and Aero-Optical Effects
J10-163 Lift Enhancement for Low-Aspect-Ratio Wings with Periodic Excitation
J10-217 Surface-Pressure Fluctuations from Separated Flow over an Axisymmetric Bump
J10-223 Yaw Angle Effect on Flow Structure over the Nonslender Diamond Wing

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- J10-260** Supersonic Drag Reduction with Repetitive Laser Pulses Through a Blunt Body
J10-142 Effect of Shock-Capturing Errors on Turbulence Statistics
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J10-116 Improved Drag Correlation for Spheres and Application to Shock-Tube Experiments
J10-180 Effect of Evaporating Droplets on Shock Waves
J10-256 Shock-Water Column Interaction, from Initial Impact to Fragmentation Onset
J10-159 Numerical Simulations of Shock Focusing over Concave Surfaces
J10-231 Microramp Flow Control of Normal Shock/Boundary-Layer Interactions
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- J10-138** Simulation of Sandia Flame D Using Velocity-Scalar Filtered Density Function
J10-147 Numerical Simulation of Low-Pressure Turbine Blade Separation Control
J10-197 Impact of Harmonic Perturbations on a Turbulent Mixing Layer
J10-110 Computational Analysis of Mach Number Effects on the Edgetone Phenomenon
J10-134 Microphone-Array Measurements in a Cryogenic Wind Tunnel
J10-075 Impact of Pressure and Temperature on the Performance of Plasma Actuators
J10-083 Rotating Blade Trailing-Edge Noise: Experimental Validation of Analytical Model
J10-213 Comparison of Nonreflecting Outlet Boundary Conditions for Compressible Solvers on Unstructured Grids

Supersonic Flow

- J10-009** Microramps Upstream of an Oblique-Shock/Boundary-Layer Interaction
J10-048 Hybrid Reynolds-Averaged/Large-Eddy Simulations of a Coaxial Supersonic Freejet Experiment
J10-140 Assessment of Bhatnagar-Gross-Krook Approaches for Near Continuum Regime Nozzle Flows
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J10-094 Finite Difference Lattice Boltzmann Method for Compressible Thermal Fluids
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J10-135 Effect of Interaction Strength on Unsteadiness in Shock-Wave-Induced Separations
J10-260 Supersonic Drag Reduction with Repetitive Laser Pulses Through a Blunt Body

J10-275 Expression for Supersonic Fluctuating Drag Force Magnitude due to Ambient Thermodynamic Disturbances
J10-263 Extending Weighted Compact Nonlinear Schemes to Complex Grids with Characteristic-Based Interface Conditions
J10-261 Compressibility Effects on Boundary-Layer Transition Induced by an Isolated Roughness Element
J10-269 Aerodynamics of a Supersonic Projectile in Proximity to a Solid Surface
J10-270 Prediction of Broadband Shock-Associated Noise Using Reynolds-Averaged Navier-Stokes Computational Fluid Dynamics
J10-040 Corrugated Tabs for Supersonic Jet Control
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J10-027 Deriving Features of Reacting Hypersonic Flow from Gradients at a Curved Shock
J10-024 Theoretical Modeling of Two-Body Interaction in Supersonic Flow
J10-039 Scalar Spatial Correlations in a Supersonic Mixing Flowfield
J10-028 Characterization of a High-Frequency Pulsed-Plasma Jet Actuator for Supersonic Flow Control
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J10-153 Energy Deposition Applied to a Transverse Jet in a Supersonic Crossflow

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J10-228 Meshless Scheme Based on Alignment Constraints
J10-128 Independent Two-Fields Solution for Full-Potential Unsteady Transonic Flows
J10-004 Application of Multi-Input Volterra Theory to Nonlinear Multi-Degree-of-Freedom Aerodynamic Systems
J10-214 Implicit High-Order Spectral Finite Volume Method for Inviscid Compressible Flows
J10-082 Stochastic Investigation of Flows About Airfoils at Transonic Speeds
J10-170 Control of the Flow over a Delta Wing in the Transonic Regime

Unsteady Flows

J10-017 Computations of Flapping Flow Propulsion for Unmanned Underwater Vehicle Design
J10-187 Effect of Frontal Gusts on Forward Flapping Flight
J10-226 Transient Separation Control Using Pulse-Combustion Actuation
J10-004 Application of Multi-Input Volterra Theory to Nonlinear Multi-Degree-of-Freedom Aerodynamic Systems
J10-056 Nearly All-Speed, Stabilized Time-Accurate Upwind Scheme on Unstructured Grid
J10-135 Effect of Interaction Strength on Unsteadiness in Shock-Wave-Induced Separations
J10-193 Large-Eddy Simulation of Supercritical-Pressure Round Jets

J10-265 Adjoint Sensitivity Formulation for Discontinuous Galerkin Discretizations in Unsteady Inviscid Flow Problems
J10-106 Discrete Adjoint-Based Design Optimization of Unsteady Turbulent Flows on Dynamic Unstructured Grids
J10-107 Effect of Pitch Rate on Near-Surface Topology on a Delta Wing
J10-179 Experimental and Numerical Fluid-Structure Analysis of Rigid and Flexible Flapping Airfoils
J10-273 Comparing Pure-Pitch and Pure-Plunge Kinematics for a Symmetric Airfoil
J10-246 Aerodynamic Performance of Cambered Heaving Airfoils
J10-020 Flame Stabilization in Small Cavities
J10-151 Comparison of Mach 10 Scramjet Measurements from Different Impulse Facilities
J10-150 Scramjet Experiments in an Expansion Tunnel: Evaluated Using a Quasi-Steady Analysis Technique
J10-230 Analytical Solution of Converging Shock Wave in Magnetogasdynamics
J10-238 Effect of Small-Scale Output Unsteadiness on Adjoint-Based Sensitivity
J10-219 Reduced-Order Nonlinear Unsteady Aerodynamic Modeling Using a Surrogate-Based Recurrence Framework
J10-119 Using Reynolds-Averaged Navier-Stokes Calculations to Predict Trailing-Edge Noise

Viscous Non-Boundary-Layer Flows

J10-073 Critical Study of Agglomerated Multigrid Methods for Diffusion
J10-197 Impact of Harmonic Perturbations on a Turbulent Mixing Layer

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J10-213 Comparison of Nonreflecting Outlet Boundary Conditions for Compressible Solvers on Unstructured Grids
J10-195 Efficient Adaptive Cartesian Vorticity Transport Solver for Vortex-Dominated Flows
J10-108 Simulations of Vortex Formation Around a Blunt Wing Tip
J10-060 Experimental Investigation of Intake Ground Vortices During Takeoff
J10-160 Effects of Injection and Main Flow Conditions on Supersonic Turbulent Mixing Structure
J10-096 Investigation of the Taylor-Culick Flow Through Particle Image Velocimetry and Numerical Simulation
J10-232 Far-Field Analysis of the Aerodynamic Force by Lamb Vector Integrals
J10-016 Control of Separation Using Spanwise Periodic Porosity
J10-044 Vortex Shedding and Noise Radiation from a Slat Trailing Edge
J10-223 Yaw Angle Effect on Flow Structure over the Nonslender Diamond Wing
J10-243 Direct Numerical Simulation of Discrete Roughness on a Swept-Wing Leading Edge

GUIDANCE, CONTROL, AND DYNAMICS TECHNOLOGY

Aircraft Stability and Control

J10-274 Stability of Gliding Flight of a Swallowtail Butterfly

J10-113 Pitch, Roll, and Yaw Damping of a Flapping Wing

Dynamics

J10-052 Adaptive Snubber-Type Magnetorheological Fluid-Elastomeric Helicopter Lag Damper
J10-190 Analytical Sensitivities of Principal Components in Time-Series Analysis of Dynamical Systems

Optimization Techniques

J10-265 Adjoint Sensitivity Formulation for Discontinuous Galerkin Discretizations in Unsteady Inviscid Flow Problems
J10-067 Consistent Regularization for Damage Detection with Noise and Model Errors
J10-118 Structural Health Monitoring Sensor Placement Optimization Under Uncertainty
J10-183 Optimizing a Boundary-Layer-Ingestion Offset Inlet by Discrete Adjoint Approach

System Identification

J10-130 Finite Element Model Updating Using Frequency Response Function of Incomplete Strain Data
J10-067 Consistent Regularization for Damage Detection with Noise and Model Errors
J10-118 Structural Health Monitoring Sensor Placement Optimization Under Uncertainty

INTERDISCIPLINARY TOPICS

Analytical and Numerical Methods

J10-100 Unifying Perspective for Gappy Proper Orthogonal Decomposition and Probabilistic Principal Component Analysis
J10-099 Interval Analysis Method for Damage Identification of Structures
J10-164 Surrogate Modeling for Uncertainty Assessment with Application to Aviation Environmental System Models
J10-078 Introduction to the Bayesian Approach Applied to Elastic Constants Identification
J10-042 Curved Boundary Treatments for the Discontinuous Galerkin Method Applied to Aeroacoustic Propagation
J10-087 Comparison of Surrogate Models in a Multidisciplinary Optimization Framework for Wing Design
J10-121 Jet Noise: Acoustic Analogy Informed by Large Eddy Simulation
J10-208 Using Cross Validation to Design Conservative Surrogates
J10-175 Node Sampling for Nonlinear Vibration Analysis of Structures with Intermittent Contact
J10-268 Numerical Study of Flexible Flapping Wing Propulsion
J10-103 Adaptive Polynomial Chaos for Gas Turbine Compression Systems Performance Analysis
J10-001 Using Automatic Differentiation to Create a Nonlinear Reduced-Order-Model Aerodynamic Solver
J10-190 Analytical Sensitivities of Principal Components in Time-Series Analysis of Dynamical Systems
J10-252 Point-Collocation Nonintrusive Polynomial Chaos Method for Stochastic Computational Fluid Dynamics
J10-242 Structural and Aerodynamic Models in Nonlinear Flight Dynamics of Very Flexible Aircraft

J10-081 Numerical Study of Acoustic Installation Effects with a Computational Aeroacoustics Method

Environmental Effects

J10-164 Surrogate Modeling for Uncertainty Assessment with Application to Aviation Environmental System Models

Lasers and Laser Applications

J10-245 Mass Flux Sensing via Tunable Diode Laser Absorption of Water Vapor

Multidisciplinary Design Optimization

J10-086 Comparison of Gradient-Based and Gradient-Enhanced Response-Surface-Based Optimizers

J10-036 Aerodynamic Optimization Algorithm with Integrated Geometry Parameterization and Mesh Movement

J10-080 Geometric Filtration Using Proper Orthogonal Decomposition for Aerodynamic Design Optimization

J10-208 Using Cross Validation to Design Conservative Surrogates

J10-087 Comparison of Surrogate Models in a Multidisciplinary Optimization Framework for Wing Design

J10-019 Mixed-Variable Optimization Strategy Employing Multifidelity Simulation and Surrogate Models

J10-007 Reliability Analysis for Multidisciplinary Systems with Random and Interval Variables

J10-103 Adaptive Polynomial Chaos for Gas Turbine Compression Systems Performance Analysis

Reliability, Maintainability, and Logistics Support

J10-055 Durability and Survivability of Piezoelectric Wafer Active Sensors on Metallic Structure

J10-078 Introduction to the Bayesian Approach Applied to Elastic Constants Identification

J10-061 Classifying Induced Damage in Composite Plates Using One-Class Support Vector Machines

J10-208 Using Cross Validation to Design Conservative Surrogates

J10-057 Damage Detection in a Plate Using Beam-Focused Shear-Horizontal Wave Magnetostrictive Patch Transducers

J10-152 Generalized Linear Random Vibration Analysis Using Autocovariance Orthogonal Decomposition

J10-007 Reliability Analysis for Multidisciplinary Systems with Random and Interval Variables

J10-118 Structural Health Monitoring Sensor Placement Optimization Under Uncertainty

Research Facilities and Instrumentation

J10-051 Bridging the Gap between Pressure-Sensitive Paint and Balance Measurements

J10-201 Factorial Design Experiment to Analyze the Response of a Luminescent Photoelastic Coating

J10-151 Comparison of Mach 10 Scramjet Measurements from Different Impulse Facilities

J10-150 Scramjet Experiments in an Expansion Tunnel: Evaluated Using a Quasi-Steady Analysis Technique

Safety

J10-057 Damage Detection in a Plate Using Beam-Focused Shear-Horizontal Wave Magnetostrictive Patch Transducers

J10-204 Effects of Structural Tests on Aircraft Safety

J10-251 Combined Plasma and Gurney Flap Flow Control at Low Flight Reynolds Numbers

J10-061 Classifying Induced Damage in Composite Plates Using One-Class Support Vector Machines

Sensor Systems

J10-201 Factorial Design Experiment to Analyze the Response of a Luminescent Photoelastic Coating

J10-057 Damage Detection in a Plate Using Beam-Focused Shear-Horizontal Wave Magnetostrictive Patch Transducers

LAUNCH VEHICLE AND MISSILE (LV/M) TECHNOLOGY

Thermal Protection Systems

J10-010 Thermal Force and Moment Determination of an Integrated Thermal Protection System

PROPULSION

Advanced Space Propulsion

J10-136 Three-Dimensional Modeling of Magnetic Nozzle Processes

Airbreathing Propulsion

J10-045 Physics and Regimes of Supersonic Combustion

J10-047 Finite Rate Chemistry Large-Eddy Simulation of Self-Ignition in Supersonic Combustion Ramjet

J10-014 Subatmospheric Extinction of Opposed-Jet Diffusion Flames of Jet Fuel and Its Surrogates

Combustion and Combustor Designs

J10-176 Flame Imaging of Gas-Turbine Relight

J10-014 Subatmospheric Extinction of Opposed-Jet Diffusion Flames of Jet Fuel and Its Surrogates

J10-030 Burning Velocities of Alternative Gaseous Fuels at Elevated Temperature and Pressure

J10-157 Combination of Image Postprocessing Tools to Identify Coherent Structures of Premixed Flames

J10-235 Experimental and Computational Study of Nonreacting Vortex Breakdown in a Swirl-Stabilized Combustor

J10-047 Finite Rate Chemistry Large-Eddy Simulation of Self-Ignition in Supersonic Combustion Ramjet

J10-015 Simulation of Supersonic Combustion Involving H_2 /Air and C_2H_4 /Air

J10-039 Scalar Spatial Correlations in a Supersonic Mixing Flowfield

J10-093 Numerical Investigation of Transverse Hydrogen Jet into Supersonic Crossflow Using Detached-Eddy Simulation

J10-046 Simulation of Turbulent Mixing Behind a Strut Injector in Supersonic Flow

J10-151 Comparison of Mach 10 Scramjet Measurements from Different Impulse Facilities

J10-150 Scramjet Experiments in an Expansion Tunnel: Evaluated Using a Quasi-Steady Analysis Technique

J10-072 Application of Inlet Injection to a Three-Dimensional Scramjet at Mach 8

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J10-235 Experimental and Computational Study of Nonreacting Vortex Breakdown in a Swirl-Stabilized Combustor

J10-221 Beamformed Flow-Acoustic Correlations in a Supersonic Jet

J10-085 Effect of Centerbody Scattering on Advanced Open-Rotor Noise

Engine Cooling and Heat Transfer

J10-090 Penetration Characteristics of Film-Cooling Jets at High Blowing Ratio

Engine Performance

J10-103 Adaptive Polynomial Chaos for Gas Turbine Compression Systems Performance Analysis

Fuels and Propellants, Properties of

J10-014 Subatmospheric Extinction of Opposed-Jet Diffusion Flames of Jet Fuel and Its Surrogates

Gas Turbine Engines

J10-030 Burning Velocities of Alternative Gaseous Fuels at Elevated Temperature and Pressure

J10-224 Experimental Investigation of a High-Lift Low-Pressure Turbine Suction Surface

Hypersonic Propulsion

J10-049 Three-Dimensional Analysis of a Supersonic Combustor Coupled to Innovative Inward-Turning Inlets

J10-173 Velocimetry Measurements of Unstart of an Inlet-Isolator Model in Mach 5 Flow

Ignition

J10-072 Application of Inlet Injection to a Three-Dimensional Scramjet at Mach 8

Liquid Rocket Engines

J10-171 Computational Simulations of the Effect of Backstep Height on Nonpremixed Combustion Instability

J10-193 Large-Eddy Simulation of Supercritical-Pressure Round Jets

Nuclear Propulsion and Power

J10-136 Three-Dimensional Modeling of Magnetic Nozzle Processes

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J10-047 Finite Rate Chemistry Large-Eddy Simulation of Self-Ignition in Supersonic Combustion Ramjet

J10-015 Simulation of Supersonic Combustion Involving H_2 /Air and C_2H_4 /Air

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J10-034 Automatic Balancing of Bladed-Disk/Shaft System via Passive Autobalancer Devices

Solid Rocket Motors

J10-096 Investigation of the Taylor–Culick Flow Through Particle Image Velocimetry and Numerical Simulation

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J10-049 Three-Dimensional Analysis of a Supersonic Combustor Coupled to Innovative Inward-Turning Inlets

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J10-047 Finite Rate Chemistry Large-Eddy Simulation of Self-Ignition in Supersonic Combustion Ramjet

Turbomachinery

J10-034 Automatic Balancing of Bladed-Disk/Shaft System via Passive Autobalancer Devices

J10-186 Towards Numerical Simulation of Fan Broadband Noise Aft Radiation from Aeroengines

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J10-245 Mass Flux Sensing via Tunable Diode Laser Absorption of Water Vapor

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J10-196 DAMAS2 Using a Point-Spread Function Weakly Varying in Space

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J10-156 Parametric Study for Dynamics of Spacecraft with Local Nonlinearities

Spacecraft Test and Evaluation

J10-111 Evaluation of the Force Limited Vibration Semi-Empirical Constant for a Two-Degrees-of-Freedom System

Spacecraft Thermal Management

J10-071 Elastic Properties of Open-Cell Foams with Tetraikaidecahedral Cells Using Finite Element Analysis

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J10-004 Application of Multi-Input Volterra Theory to Nonlinear Multi-Degree-of-Freedom Aerodynamic Systems

J10-092 Bifurcation Prediction of Large-Order Aeroelastic Models

J10-115 Energy Transformation to Generalized Timoshenko Form for Nonuniform Beams

J10-013 Piezoelectric Control of a Partially Propped Cantilever Subjected to a Follower Force

J10-199 Nonlinear Aeroelastic Study for Folding Wing Structures

Dynamic Model Analysis

J10-146 Vibration of Plate with Curvilinear Stiffeners Using Mesh-Free Method

J10-175 Node Sampling for Nonlinear Vibration Analysis of Structures with Intermittent Contact

J10-144 Improvements to Obtain a Unique Solution in System Identification

J10-240 Flexible Boundary Method in Dynamic Substructure Techniques Including Different Component Damping

J10-167 Dynamic Thermoelastic Analysis of a Slab Using Finite Integral Transformation Method

J10-013 Piezoelectric Control of a Partially Propped Cantilever Subjected to a Follower Force

Flexible and Active Structures

J10-050 Dynamic Elastic-Axis Shifting: An Important Enhancement of Piezoelectric Post-buckled Precompressed Actuators

J10-184 Nonlinear Analysis of Smart Composite Plates Including Hysteresis Effects

J10-179 Experimental and Numerical Fluid-Structure Analysis of Rigid and Flexible Flapping Airfoils

J10-139 Modified Dynamic Preisach Model for Hysteresis

J10-041 Effect of Cell Geometry on the Energy Absorption of Honeycombs Under In-Plane Compression

J10-114 Shape Memory Alloy–Piezoelectric Active Structures for Reversible Actuation of Bistable Composites

J10-052 Adaptive Snubber-Type Magnetorheological Fluid-Elastomeric Helicopter Lag Damper

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J10-139 Modified Dynamic Preisach Model for Hysteresis

J10-117 Interface Debonding Between a Plate-like Nanomaterial and the Substrate

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J10-126 Micromechanics Modeling of Composites Subjected to Multiaxial Progressive Damage in the Constituents

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J10-063 Energy-Dissipating Composite Members with Progressive Failure: Impulsive Response and Experimental Verification

J10-059 Numerical Simulation of Glass-Fiber-Reinforced Aluminum Laminates with Diverse Impact Damage

J10-065 Free-Vibration Analysis of Ring-Stiffened Branched Composite Shells of Revolution

J10-264 Guidelines and Recommendations to Construct Theories for Metallic and Composite Plates

J10-148 Invariant Finite Element Model for Composite Structures: The Generalized Unified Formulation

J10-012 Optimization of Variable-Stiffness Panels for Maximum Buckling Load Using Lamination Parameters

J10-181 Variable-Kinematics Approach for Linearized Buckling Analysis of Laminated Plates and Shells

J10-272 New Families of Hygrothermally Stable Composite Laminates with Optimal Extension-Twist Coupling

J10-271 Analytical Investigation of the Toughening Potential of a Failure Tailoring Concept

J10-104 Asymptotical Construction of an Efficient High-Fidelity Model for Multilayer Functionally Graded Plates

J10-061 Classifying Induced Damage in Composite Plates Using One-Class Support Vector Machines

J10-126 Micromechanics Modeling of Composites Subjected to Multiaxial Progressive Damage in the Constituents

J10-239 Error Estimation and Error Reduction in Separable Monte-Carlo Method

J10-054 Vibration Analysis of a Multiple-Layered Viscoelastic Structure Using the Biot Damping Model

J10-043 New Interference Approach for Ballistic Impact into Stacked Flexible Composite Body Armor

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J10-011 Redundant Reactions of Indeterminate Beams by Principle of Quasi Work

J10-063 Energy-Dissipating Composite Members with Progressive Failure: Impulsive Response and Experimental Verification

J10-254 Buckling and Static Analysis of Curvilinearly Stiffened Plates Using Mesh-Free Method

J10-272 New Families of Hygrothermally Stable Composite Laminates with Optimal Extension-Twist Coupling

J10-255 Least-Squares Continuous Sensitivity Shape Optimization for Structural Elasticity Applications

J10-019 Mixed-Variable Optimization Strategy Employing Multifidelity Simulation and Surrogate Models

J10-005 Multi-Axial Fatigue-Life Prediction via a Strain-Energy Method

J10-041 Effect of Cell Geometry on the Energy Absorption of Honeycombs Under In-Plane Compression

J10-239 Error Estimation and Error Reduction in Separable Monte-Carlo Method

J10-204 Effects of Structural Tests on Aircraft Safety

J10-251 Combined Plasma and Gurney Flap Flow Control at Low Flight Reynolds Numbers

Structural Durability (Including Fatigue, Fracture, and Environmental Degradation)

J10-058 Analytical Modeling of Cracked Thin-Walled Beams Under Torsion

J10-117 Interface Debonding Between a Plate-like Nanomaterial and the Substrate

J10-043 New Interference Approach for Ballistic Impact into Stacked Flexible Composite Body Armor

J10-126 Micromechanics Modeling of Composites Subjected to Multiaxial Progressive Damage in the Constituents

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J10-065 Free-Vibration Analysis of Ring-Stiffened Branched Composite Shells of Revolution

J10-097 Random Eigenvalue Problems in Structural Dynamics: Experimental Investigations

- J10-011** Redundant Reactions of Indeterminate Beams by Principle of Quasi Work
J10-003 Reduced-Order Models for a Shallow Curved Beam Under Combined Loading
J10-006 Finite Element Method Applied to Supersonic Flutter of Circular Cylindrical Shells
J10-168 Component Modal Tests with Additional Mass and Stiffness
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J10-054 Vibration Analysis of a Multiple-Layered Viscoelastic Structure Using the Biot Damping Model
J10-190 Analytical Sensitivities of Principal Components in Time-Series Analysis of Dynamical Systems
J10-175 Node Sampling for Nonlinear Vibration Analysis of Structures with Intermittent Contact
J10-158 Studies on Fluid-Thermal-Structural Coupling for Aerothermoelasticity in Hypersonic Flow
J10-152 Generalized Linear Random Vibration Analysis Using Autocovariance Orthogonal Decomposition
J10-233 Component Synthesis Method for Transient Response of Nonproportionally Damped Structures

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- J10-059** Numerical Simulation of Glass-Fiber-Reinforced Aluminum Laminates with Diverse Impact Damage
J10-097 Random Eigenvalue Problems in Structural Dynamics: Experimental Investigations
J10-006 Finite Element Method Applied to Supersonic Flutter of Circular Cylindrical Shells
J10-058 Analytical Modeling of Cracked Thin-Walled Beams Under Torsion
J10-069 Aeroelastic-Acoustics Simulation of Flight Systems
J10-255 Least-Squares Continuous Sensitivity Shape Optimization for Structural Elasticity Applications
J10-102 Integrated Local Petrov–Galerkin Sinc Method for Structural Mechanics Problems
J10-071 Elastic Properties of Open-Cell Foams with Tetraikadecahedral Cells Using Finite Element Analysis
J10-099 Interval Analysis Method for Damage Identification of Structures
J10-148 Invariant Finite Element Model for Composite Structures: The Generalized Unified Formulation
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