

# 2008 *Journal of Aircraft* Index

## How to Use the Index

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**C08-019** Aerodynamic Modeling of the Wing-Propeller Interaction for a Tail-Sitter Unmanned Air Vehicle  
**C08-074** Transient Structure on Unmanned Combat Air Vehicle: Effect of Pitch-Up Motion  
**C08-141** Variable Fidelity Conceptual Design Environment for Revolutionary Unmanned Aerial Vehicles  
**C08-180** Design of a High-Lift, Thick Airfoil for Unmanned Aerial Vehicle Applications  
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**C08-203** Passengers' Comfort Modeling Inside Aircraft  
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**C08-082** Abridged Summary of the Third AIAA Computational Fluid Dynamics Drag Prediction Workshop

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**C08-104** Estimating the Subsonic Aerodynamic Center and Moment Components for Swept Wings

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**C08-107** Mesh Generation and Deformation Algorithm for Aeroelasticity Simulations

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**C08-079** Structured and Unstructured Navier-Stokes Solvers for the Third Drag Prediction Workshop

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**C08-158** Transport Aircraft Three-Dimensional High-Lift Wing Numerical Transition Prediction  
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**C08-047** Dynamics of Vortical Flows Induced by Swept-Notched Wings in Aircraft Wake Simulations

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**C08-208** Experimental Investigation of Gurney Flaps

**C08-199** Oscillation Effects on Boundary-Layer Development Under the Influence of Favorable Pressure Gradients

**C08-217** Shallow Rectangular Cavities at Low Speeds Including Effects of Yaw

### ***Supersonic Flow***

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**C08-150** Multiple Discipline Optimization and Aerodynamic Off-Design Analysis of Supersonic Transport Aircraft

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**C08-152** Transition Measurement of Natural Laminar Flow Wing on Supersonic Experimental Airplane NEXST-1

**C08-102** Control of Pressure Loads in Geometrically Complex Cavities

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**C08-081** CFL3D/OVERFLOW Results for DLR-F6 Wing/Body and Drag Prediction Workshop Wing

**C08-130** Computational Prediction of Roll Damping for the F/A-18E at Transonic Speeds

**C08-082** Abridged Summary of the Third AIAA Computational Fluid Dynamics Drag Prediction Workshop

**C08-212** Effect of Humidity on Transonic Flow

**C08-020** Investigations for Supersonic Transports at Transonic and Supersonic Conditions

**C08-083** Comparison Study of Drag Prediction by Structured and Unstructured Mesh Method

**C08-084** DLR Results from the Third AIAA Computational Fluid Dynamics Drag Prediction Workshop

**C08-155** Transonic Limit Cycle Flutter of High-Aspect-Ratio Swept Wings

**C08-186** Transonic Aeroelastic Analysis of All-Movable Wing with Free Play and Viscous Effects

**C08-190** Calculated Viscous and Scale Effects on Transonic Aeroelasticity

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**C08-108** Laminar Flow Separation and Transition on a Low-Reynolds-Number Airfoil

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**C08-122** Lift from Spanwise Flow in Simple Flapping Wings

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**C08-096** Wing-Rock Limit Cycle Oscillation Prediction Based on Computational Fluid Dynamics

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**C08-156** Wind Tunnel Studies of Damaged-Wing-Induced Limit Cycle Oscillations

**C08-178** Flexible-Membrane Airfoils at Low Reynolds Numbers

**C08-164** Airbrake-Induced Fin-Buffer Loads on Fighter Aircraft

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**C08-058** Uniformly High-Order Essentially Non-oscillatory Schemes for Vortex Convection Across Overset Interfaces

**C08-065** Experimental Investigation of Pairs of Vortex Filaments in Ground Effect

**C08-219** Experimental Study on Lift Characteristics for Flow over Flexible Cropped Delta Wings

**C08-137** Landing Gear Influence on the Wake Vortex of a Large Transport Aircraft

**C08-089** Reactive Flow Control of Delta-Wing Vortex

**C08-074** Transient Structure on Unmanned Combat Air Vehicle: Effect of Pitch-Up Motion

**C08-047** Dynamics of Vortical Flows Induced by Swept-Notched Wings in Aircraft Wake Simulations

**C08-071** Transport Aircraft Wake Influenced by a Large Winglet and Winglet Flaps

**C08-048** Skill of an Aircraft Wake-Vortex Model Using Weather Prediction and Observation

**C08-147** Examining Effects of Increased Effective Area on Performance of Movable Tip Strakes

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**C08-008** Experimental and Numerical Investigation of 65 Degree Delta and 65/40 Degree Double-Delta Wings

**C08-077** Effect of the Blade Inner-Tip Position on the Generation of Twin Vortices

**C08-093** Computational Modeling of HART II Blade-Vortex Interaction Loading and Wake System

**C08-131** Effects of a Movable Tip Strake on Wake Vortex Structure

**C08-111** Tip-Disturbance Effects on Asymmetric Vortex Breakdown Around a Chined Forebody

**C08-178** Flexible-Membrane Airfoils at Low Reynolds Numbers

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## GUIDANCE, CONTROL, AND DYNAMICS TECHNOLOGY

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- C08-105** Determination of Wing-Only Aircraft Tumbling Characteristics Through Computational Fluid Dynamics  
**C08-160** Structure Computation of Quiet Spike™ Flight-Test Data During Envelope Expansion  
**C08-176** A New Look at High-Altitude Turbulence  
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### *Aircraft Stability and Control*

- C08-068** Metrics for the Evaluation of Pedal Force/Feel Systems in Transport Aircraft  
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**C08-205** Flight Control System Design for Inherent Damage Tolerance  
**C08-051** Conceptual Study of Gondola Stabilization in a Balloon System  
**C08-014** General Approach to Enhance Flying Qualities via Dynamic Balancing of Aircraft Mass  
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- C08-188** Autonomous Surface Vehicle Free-Rotating Wingsail Section Design and Configuration Analysis

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- C08-039** Design, Integration, and Preliminary Assessment of a Takeoff Monitor Display

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- C08-089** Reactive Flow Control of Delta-Wing Vortex  
**C08-205** Flight Control System Design for Inherent Damage Tolerance  
**C08-191** Robust Model Predictive Control of Shimmy Vibration in Aircraft Landing Gears  
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**C08-088** Wind-Tunnel Testing of Rotor with Individually Controlled Trailing-Edge Flaps for Vibration Reduction

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- C08-210** Air Data Computation Using Neural Networks

### *Control Theory*

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- C08-032** Rotorcraft Parameter Identification from Real Time Flight Data  
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**C08-120** Effect of Jerk and Acceleration on the Perception of Motion Strength  
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**C08-014** General Approach to Enhance Flying Qualities via Dynamic Balancing of Aircraft Mass

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- C08-161** Adaptive Eulerian Modeling for Air Traffic Flow Management  
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**C08-121** Environmentally Optimized Resolutions of In-Trail Separation Conflicts for Arrival Flights

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**C08-160** Structure Computation of Quiet Spike™ Flight-Test Data During Envelope Expansion  
**C08-163** Long-Range Propagation of Sonic Boom from the Concorde Airliner: Analyses and Simulations  
**C08-220** Soft-Histogram Degradation Analysis of a Tie Bar of a Rotor-Head Structure

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- C08-220** Soft-Histogram Degradation Analysis of a Tie Bar of a Rotor-Head Structure

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- C08-101** Active Control of Three-Surface Aeroelastic Model

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**C08-088** Wind-Tunnel Testing of Rotor with Individually Controlled Trailing-Edge Flaps for Vibration Reduction  
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**C08-224** Transformed Normal Probability Density Functions for Parameter Estimation

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- C08-161** Adaptive Eulerian Modeling for Air Traffic Flow Management

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- C08-038** Inverse Method Using Finite Strain Measurements to Determine Flight Load Distribution Functions  
**C08-182** Failure-Finding Frequency for a Repairable System Subject to Hidden Failures  
**C08-135** Transonic Nonlinear Aeroelastic Analysis of Aircraft Tail Wings Using Multiblock Approach  
**C08-139** Interactive Inverse Design Optimization of Fuselage Shape for Low-Boom Supersonic Concepts  
**C08-179** Generation of Aerodynamics Databases Using High-Order Singular Value Decomposition  
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- C08-048** Skill of an Aircraft Wake-Vortex Model Using Weather Prediction and Observation

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**C08-176** A New Look at High-Altitude Turbulence  
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- C08-128** Role Identification of Yaw and Sway Motion in Helicopter Yaw Control Tasks  
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**C08-039** Design, Integration, and Preliminary Assessment of a Takeoff Monitor Display

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**C08-162** Multidisciplinary Design Exploration for a Winglet  
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**C08-139** Interactive Inverse Design Optimization of Fuselage Shape for Low-Boom Supersonic Concepts  
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**C08-061** Multidisciplinary Integrated Preliminary Design Applied to Unconventional Aircraft Configurations  
**C08-011** Optimum Selection of "Number of Seats/Cargo Volume" for Transports in Uncertain Business Environment

- C08-012** Multifidelity Design Optimization of Low-Boom Supersonic Jets  
**C08-015** Universal Parametric Geometry Representation Method  
**C08-010** Efficient Reliability-Based Design and Inspection of Stiffened Panels Against Fatigue  
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**C08-010** Efficient Reliability-Based Design and Inspection of Stiffened Panels Against Fatigue  
**C08-182** Failure-Finding Frequency for a Repairable System Subject to Hidden Failures

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- C08-210** Air Data Computation Using Neural Networks

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**C08-135** Transonic Nonlinear Aeroelastic Analysis of Aircraft Tail Wings Using Multiblock Approach  
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**C08-189** Topology Optimization Approach for the Determination of the Multiple-Configuration Morphing Wing Structure

**C08-192** Evolutionary Multicriteria Design Optimization of Integrally Stiffened Airframe Structures

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**C08-042** Buckling Behavior of Composite Laminated Stiffened Panels Under Combined Shear-Axial Compression

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