

2009 Journal of Guidance, Control, and Dynamics Index

How to Use the Index

In the Subject Index, pages 1967–1973, each technical paper is listed under a maximum of three appropriate headings. Note the locating number in boldface type preceding each paper title, and use that number to find the paper in the Chronological Index. The Author Index, pages 1974–1975, lists all authors associated with a given technical paper. The locating numbers are identical to those in the Subject Index. The Chronological Index, pages 1976–1982, also lists all papers by their locating numbers. This listing contains titles, authors and their affiliations, and volume, issue number, and page where the paper appeared. It also gives the AIAA paper number, if any, on which the article was based. Comments, Replies, and Errata are listed directly beneath the paper to which they refer. If the paper to which they refer was published prior to 2009, that paper also will appear in both the Subject and Chronological Indexes. Authors of Comments also are listed in the Author Index.

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G09-014 Autonomous Inertial Relative Navigation with Sight-Line-Stabilized Sensors for Spacecraft Rendezvous
G09-019 Adaptive Particle Filtering for Spacecraft Attitude Estimation from Vector Observations
G09-009 Event Triggers in Linear Covariance Analysis with Applications to Orbital Rendezvous
G09-051 Application of Synchronization to Formation Flying Spacecraft: Lagrangian Approach
G09-101 Automatic Mass Balancing of Air-Bearing-Based Three-Axis Rotational Spacecraft Simulator
G09-001 Quantized Control Allocation of Reaction Control Jets and Aerodynamic Control Surfaces
G09-029 Control of Solar Sail Periodic Orbits in the Elliptic Three-Body Problem

G09-052 Extension of the Cucker-Smale Control Law to Space Flight Formations
G09-008 Shape-Based Approach to Low-Thrust Rendezvous Trajectory Design
G09-006 Fast Particle Filtering for Attitude and Angular-Rate Estimation from Vector Observations
G09-020 Spacecraft Momentum Dumping Using Fewer than Three External Control Torques
G09-063 Filter QUEST or REQUEST
G09-170 Asymptotic Analysis of Displaced Lunar Orbits
G09-159 Maneuvering Spacecraft Formations Using a Dynamically Adapted Finite Element Methodology
G09-181 Investigation of Reaction Control System Design on Spacecraft Handling Qualities for Docking

State Estimation

G09-135 Verification of Optimality and Costate Estimation Using Hilbert Space Projection
G09-105 Regularization of Minimum Parameter Attitude Estimation
G09-089 Autonomous Observability of Networked Multisatellite Systems
G09-136 Stochastic Observability Test for Discrete-Time Kalman Filters
G09-138 Optimal Orbital Rendezvous Maneuvering for Angles-Only Navigation
G09-112 Deterministic Relative Attitude Determination of Three-Vehicle Formations
G09-147 Norm-Constrained Kalman Filtering
G09-124 Navigation Algorithms and Observability Analysis for Formation Flying Missions
G09-106 Three-Dimensional Validation of an Integrated Estimation/Guidance Algorithm Against Randomly Maneuvering Targets
G09-165 Attitude Determination from Light Curves
G09-086 Terminal-Area Aircraft Tracking Using Hybrid Estimation
G09-019 Adaptive Particle Filtering for Spacecraft Attitude Estimation from Vector Observations
G09-064 Recursive Bias Estimation and Orbit Determination
G09-196 Comparison of the Radar and Seeker Modes of Pursuer Guidance
G09-006 Fast Particle Filtering for Attitude and Angular-Rate Estimation from Vector Observations
G09-016 Correlation of Optical Observations of Objects in Earth Orbit

Structural Control

G09-023 Modal Transformation Method for Deformable Membrane Mirrors
G09-131 Active Flutter Suppression for a Three-Surface Transport Aircraft by Recurrent Neural Networks
G09-186 Active Optics of Large Segmented Mirrors: Dynamics and Control

System Identification

G09-096 Flight-Test Experiment Design for Characterizing Stability and Control of Hypersonic Vehicles
G09-077 Nonlinear Reconfiguring Flight Control Based on Online Physical Model Identification
G09-071 Reduced-Order Kalman Filtering with Relative Measurements

G09-113 Modeling Human Multimodal Perception and Control Using Genetic Maximum Likelihood Estimation
G09-037 Use of Pitch and Heave Motion Cues in a Pitch Control Task
G09-144 Multimodal Pilot Control Behavior in Combined Target-Following Disturbance-Rejection Tasks
G09-101 Automatic Mass Balancing of Air-Bearing-Based Three-Axis Rotational Spacecraft Simulator

Trajectory Optimization

G09-117 Feedback Dual Controller Design and Its Application to Monocular Vision-Based Docking
G09-135 Verification of Optimality and Costate Estimation Using Hilbert Space Projection
G09-154 Path Planning Algorithms for Skid-to-Turn Unmanned Aerial Vehicles
G09-127 Libration Control of Electrodynamical Tethers Using Predictive Control with Time-Delayed Feedback
G09-119 Stochastic and Dynamic Routing Problems for Multiple Uninhabited Aerial Vehicles
G09-094 Aeroassisted Orbital Transfer Trajectory Optimization Considering Thermal Protection System Mass
G09-049 Sequential Multiresolution Trajectory Optimization Schemes for Problems with Moving Targets
G09-092 Simple Method to Determine Globally Optimal Orbital Transfers
G09-125 Optimal Ascent Trajectories for Stratospheric Airships Using Wind Energy
G09-109 Computational Nonlinear Stochastic Control
G09-012 Cycloidal Trajectories in Planetary Moon Systems
G09-058 Flight Trajectory Optimization to Minimize Ground Noise in Helicopter Landing Approach
G09-116 Extracting Energy from Downdraft to Enhance Endurance of Uninhabited Aerial Vehicles
G09-083 Semi-Analytical Solution for the Optimal Low-Thrust Deflection of Near-Earth Objects
G09-095 Low-Thrust Control of a Lunar Mapping Orbit
G09-146 Engineless Unmanned Aerial Vehicle Propulsion by Dynamic Soaring
G09-123 Spacecraft Trajectory Optimization Based on Discrete Sets of Pseudoimpulses
G09-167 Compressibility Effects on Maximum Range Cruise at Constant Altitude
G09-138 Optimal Orbital Rendezvous Maneuvering for Angles-Only Navigation
G09-163 Optimization of Low-Thrust Reconfiguration Maneuvers for Spacecraft Flying in Formation
G09-151 Optimal Control of a Librating Electrodynamical Tether Performing a Multirevolution Orbit Change
G09-139 Quaternion-Based Inverse Dynamics Model for Expressing Aerobatic Aircraft Trajectories
G09-137 Nonlinear Optimization of Low-Thrust Trajectory for Satellite Formation: Legendre Pseudospectral Approach

G09-141 Hybrid Genetic Algorithm Collocation Method for Trajectory Optimization
G09-133 Solar-Powered Aircraft: Energy-Optimal Path Planning and Perpetual Endurance
G09-197 Role of Invariant Manifolds in Low-Thrust Trajectory Design
G09-140 Hermite-Legendre-Gauss-Lobatto Direct Transcription in Trajectory Optimization
G09-067 Minimality of Variable-Thrust Subarcs in Optimal Chemical Rocket Trajectories
G09-107 Pseudospectral Motion Planning for Autonomous Vehicles
G09-081 Reduction of Low-Thrust Continuous Controls for Trajectory Dynamics
G09-044 Designing Trajectories in a Planet-Moon Environment Using the Controlled Keplerian Map
G09-059 Evolutionary Neurocontrol: A Novel Method for Low-Thrust Gravity-Assist Trajectory Optimization
G09-048 Numerical Solution of the Three-Dimensional Orbital Pursuit-Evasion Game
G09-004 Numerical Study of Optimal Trajectories with Singular Arcs for an Ariane 5 Launcher
G09-034 Time-Optimal Low-Thrust Formation Maneuvering Using a Hybrid Linear/Nonlinear Controller
G09-045 Indirect Optimization of Three-Dimensional Finite-Burning Interplanetary Transfers Including Spiral Dynamics
G09-025 Trajectory Shaping of Projectile Through Cross-Entropy-Minimization-Based Search
G09-008 Shape-Based Approach to Low-Thrust Rendezvous Trajectory Design
G09-039 Path-Planning with Avoidance Using Nonlinear Branch-and-Bound Optimization
G09-179 In-Flight Trajectory Planning and Guidance for Autonomous Parafoils
G09-060 Fast Model Predictive Control of the Nadir Singularity in Electro-Optic Systems
G09-054 Three-Dimensional Trajectory Optimization Satisfying Waypoint and No-Fly Zone Constraints
G09-174 Solution of Two-Point Boundary-Value Problems Using Lagrange Implicit Function Theorem
G09-159 Maneuvering Spacecraft Formations Using a Dynamically Adapted Finite Element Methodology
G09-200 Efficient Initial Costates Estimation for Optimal Spiral Orbit Transfer Trajectories Design

UAVs

G09-154 Path Planning Algorithms for Skid-to-Turn Unmanned Aerial Vehicles
G09-116 Extracting Energy from Downdraft to Enhance Endurance of Uninhabited Aerial Vehicles
G09-125 Optimal Ascent Trajectories for Stratospheric Airships Using Wind Energy
G09-119 Stochastic and Dynamic Routing Problems for Multiple Uninhabited Aerial Vehicles
G09-133 Solar-Powered Aircraft: Energy-Optimal Path Planning and Perpetual Endurance
G09-132 Nonlinear Robust Stochastic Control for Unmanned Aerial Vehicles
G09-146 Engineless Unmanned Aerial Vehicle Propulsion by Dynamic Soaring
G09-002 Nonlinear Adaptive Trajectory Control Applied to an F-16 Model

G09-073 Semiglobal Trajectory Tracking Control Law for a Nonlinear Nonminimum Phase Three-Degree-of-Freedom Flight Vehicle
G09-005 Coordinated Standoff Tracking of Moving Targets: Control Laws and Information Architectures
G09-202 Nonlinear Hierarchical Flight Controller for Unmanned Rotorcraft: Design, Stability, and Experiments
G09-021 Envelope Protection for Autonomous Unmanned Aerial Vehicles
G09-047 Gust Energy Extraction for Mini and Micro Uninhabited Aerial Vehicles

INTERDISCIPLINARY TOPICS

Aerospace Technology Utilization

G09-184 Dynamics of Towed Payload System Using Multiple Fixed-Wing Aircraft

Analytical and Numerical Methods

G09-135 Verification of Optimality and Costate Estimation Using Hilbert Space Projection
G09-083 Semi-Analytical Solution for the Optimal Low-Thrust Deflection of Near-Earth Objects
G09-105 Regularization of Minimum Parameter Attitude Estimation
G09-180 Model Development and Code Verification for Simulation of Electrodynamical Tether System
G09-163 Optimization of Low-Thrust Reconfiguration Maneuvers for Spacecraft Flying in Formation
G09-191 Structure Preserving Approximations of Conservative Forces for Application to Small-Body Dynamics
G09-173 Robustness Analysis for Terminal Phases of Reentry Flight
G09-009 Event Triggers in Linear Covariance Analysis with Applications to Orbital Rendezvous
G09-100 Structure-Preserving Stabilization for Hamiltonian System and its Applications in Solar Sail
G09-065 Interior Parameters, Exterior Parameters, and a Cayley-Like Transform
G09-166 Computational Bifurcation Analysis of Multiparameter Dynamical Systems
G09-026 Lateral-Directional Aircraft Dynamics Under Static Moment Nonlinearity
G09-091 Analytical Model to Find Frozen Orbits for a Lunar Orbiter

Human Factors

G09-144 Multimodal Pilot Control Behavior in Combined Target-Following Disturbance-Rejection Tasks
G09-113 Modeling Human Multimodal Perception and Control Using Genetic Maximum Likelihood Estimation

Sensor Systems

G09-053 Motion and Parameter Estimation of Space Objects Using Laser-Vision Data

LAUNCH VEHICLE AND MISSILE (LV/M) TECHNOLOGY

Simulation

G09-153 Optimal Deployment Control of Spinning Space Webs and Membranes

Trajectories and Tracking Systems

G09-173 Robustness Analysis for Terminal Phases of Reentry Flight

PROPULSION***Advanced Space Propulsion***

G09-042 Lorentz-Augmented Jovian Orbit Insertion

G09-164 Gravity-Assist Maneuvers Augmented by the Lorentz Force

REAL-TIME SYSTEMS***Robotic Systems***

G09-075 Properties of a Real-Time Guidance Method for Preventing a Collision

Sensor Systems

G09-198 Vision-Based Obstacle Avoidance of Wheeled Robots Using Fast Estimation

Systems of Systems

G09-203 Decentralized Receding Horizon Control for Cooperative Multiple Vehicles Subject to Communication Delay

Unmanned Systems

G09-107 Pseudospectral Motion Planning for Autonomous Vehicles

G09-022 Sensor Fusion Applied to Autonomous Aerial Refueling

SPACE TECHNOLOGY***Aerobraking Flight Mechanics***

G09-094 Aeroassisted Orbital Transfer Trajectory Optimization Considering Thermal Protection System Mass

Landers

G09-093 Analytical Lunar Descent Guidance Algorithm

Mission Design and Analysis

G09-046 Solar Sail Near-Optimal Circular Transfers with Plane Change

G09-057 Optimal Design of Satellite Formation Relative Motion Orbits Using Least-Squares Methods

G09-044 Designing Trajectories in a Planet-Moon Environment Using the Controlled Keplerian Map

G09-148 Propellantless Stationkeeping at Enceladus via the Electromagnetic Lorentz Force

G09-012 Cycler Trajectories in Planetary Moon Systems

G09-020 Spacecraft Momentum Dumping Using Fewer than Three External Control Torques

G09-011 Multicriteria Comparison Among Several Mitigation Strategies for Dangerous Near-Earth Objects

G09-009 Event Triggers in Linear Covariance Analysis with Applications to Orbital Rendezvous

Mission Trajectories (Earth and Interplanetary)

G09-046 Solar Sail Near-Optimal Circular Transfers with Plane Change

G09-115 Computation and Applications of an Orbital Dynamics Symplectic State Transition Matrix

G09-185 State Transition Matrix Approximation Using a Generalized Averaging Method

G09-012 Cycler Trajectories in Planetary Moon Systems

G09-102 Escape from Elliptic Orbit Using Constant Radial Thrust

G09-197 Role of Invariant Manifolds in Low-Thrust Trajectory Design

G09-141 Hybrid Genetic Algorithm Collocation Method for Trajectory Optimization

G09-044 Designing Trajectories in a Planet-Moon Environment Using the Controlled Keplerian Map

G09-072 Quaternion Analysis Tools for Engineering and Scientific Applications

G09-043 Circulating Eccentric Orbits Around Planetary Moons

G09-174 Solution of Two-Point Boundary-Value Problems Using Lagrange Implicit Function Theorem

G09-011 Multicriteria Comparison Among Several Mitigation Strategies for Dangerous Near-Earth Objects

G09-100 Structure-Preserving Stabilization for Hamiltonian System and its Applications in Solar Sail

Space Systems

G09-188 Multiple-Model Adaptive Fault-Tolerant Control of a Planetary Lander

G09-180 Model Development and Code Verification for Simulation of Electrodynamical Tether System

G09-029 Control of Solar Sail Periodic Orbits in the Elliptic Three-Body Problem

G09-152 Optimal Satellite Transfers Using Relative Motion Dynamics

G09-149 Quaternion Observer-Based Model-Independent Attitude Tracking Control of Spacecraft

Spacecraft Attitude Determination

G09-105 Regularization of Minimum Parameter Attitude Estimation

G09-147 Norm-Constrained Kalman Filtering

G09-158 Fault Detection and Isolation for Deep Space Satellites

G09-165 Attitude Determination from Light Curves

G09-053 Motion and Parameter Estimation of Space Objects Using Laser-Vision Data

G09-160 Spin-Axis Attitude Determination from Earth Chord-Angle Variations for Geostationary Satellites

G09-112 Deterministic Relative Attitude Determination of Three-Vehicle Formations

G09-006 Fast Particle Filtering for Attitude and Angular-Rate Estimation from Vector Observations

G09-063 Filter QUEST or REQUEST

G09-019 Adaptive Particle Filtering for Spacecraft Attitude Estimation from Vector Observations

Spacecraft Power

G09-036 Survey of Technology Developments in Flywheel Attitude Control and Energy Storage Systems

Spacecraft Sensor Systems

G09-023 Modal Transformation Method for Deformable Membrane Mirrors

Spacecraft Test and Evaluation

G09-181 Investigation of Reaction Control System Design on Spacecraft Handling Qualities for Docking

STRUCTURAL MECHANICS AND MATERIALS***Aeroelasticity and Control***

G09-033 Robust Aeroelastic Control of Lifting Surfaces with Uncertainty via Multi-Objective Synthesis

G09-114 Immersion- and Invariance-Based Adaptive Control of a Nonlinear Aeroelastic System

G09-131 Active Flutter Suppression for a Three-Surface Transport Aircraft by Recurrent Neural Networks

Dynamic Model Analysis

G09-184 Dynamics of Towed Payload System Using Multiple Fixed-Wing Aircraft

G09-186 Active Optics of Large Segmented Mirrors: Dynamics and Control

G09-003 Deployment Control of Spinning Space Webs

Flexible and Active Structures

G09-126 Simulating Active Vibration Attenuation in Underactuated Spatial Structures

G09-186 Active Optics of Large Segmented Mirrors: Dynamics and Control

G09-023 Modal Transformation Method for Deformable Membrane Mirrors

Structural Finite Elements

G09-003 Deployment Control of Spinning Space Webs