

JOURNAL SCOPES

AIAA JOURNAL

This Journal is devoted to the advancement of the science and technology of astronautics and aeronautics through the dissemination of original archival research papers disclosing new theoretical developments and/or experimental results. The topics include aeroacoustics, aerodynamics, combustion, fundamentals of propulsion, fluid mechanics and reacting flows, fundamental aspects of the aerospace environment, hydrodynamics, lasers and associated phenomena, plasmas, research instrumentation and facilities, structural mechanics and materials, optimization, and thermomechanics and thermochemistry. Papers also are sought which review in an intensive manner the results of recent research developments on any of the topics listed above.

JOURNAL OF AEROSPACE COMPUTING, INFORMATION, AND COMMUNICATION

This Journal is devoted to the applied science and engineering of aerospace computing, information, and communication. Original archival research papers are sought which include significant scientific and technical knowledge and concepts. The Journal publishes qualified papers in areas such as information technology, information assurance, data mining, real-time systems, computational techniques, embedded systems, communication systems, networking, software engineering, software reliability, systems engineering, systems of systems, signal processing, data fusion, computer architecture, high-performance computing systems and software, knowledge management, expert systems, sensor systems, robotics, intelligent and autonomous systems, and human-computer interfaces. Articles are sought which demonstrate the application of recent research in computing, information, and communications technology to a wide range of practical aerospace problems in the analysis and design of vehicles, onboard avionics, ground-based processing and control systems, flight simulation, and air transportation systems.

JOURNAL OF AIRCRAFT

This Journal is devoted to the advancement of the applied science and technology of airborne flight through the dissemination of original archival papers describing significant advances in aircraft, the operation of aircraft, and applications of aircraft technology to other fields. The Journal publishes qualified papers on aircraft systems, air transportation, air traffic management, and multidisciplinary design optimization of aircraft, flight mechanics, flight and ground testing, applied computational fluid dynamics, flight safety, weather and noise hazards, human factors, airport design, airline operations, application of computers to aircraft including artificial intelligence/expert systems, production methods, engineering economic analyses, affordability, reliability, maintainability, and logistics support, integration of propulsion and control systems into aircraft design and operations, aircraft aerodynamics (including unsteady aerodynamics), structural design/dynamics, aeroelasticity, and aeroacoustics. It publishes papers on general aviation, military and civilian aircraft, UAV, STOL and V/STOL, subsonic, supersonic, transonic, and hypersonic aircraft. Papers are sought which comprehensively survey results of recent technical work with emphasis on aircraft technology application.

JOURNAL OF GUIDANCE, CONTROL, AND DYNAMICS

This Journal is devoted to the advancement of the science and technology of guidance, control, and dynamics through the dissemination of original archival papers disclosing significant technical knowledge, exploratory developments, design criteria, and applications in aeronautics, astronautics, celestial mechanics, and related fields. The Journal publishes qualified papers on dynamics, stability, guidance, control, navigation, optimization, electronics, avionics, and information processing related to aeronautical and astronautical and marine systems. Papers are sought which demonstrate the application of recent research to practical engineering problems. Papers that describe aspects of the dynamics and control of significant recent developments, such as a new or different aircraft or spacecraft, also are desired.

JOURNAL OF PROPULSION AND POWER

This Journal is devoted to the advancement of the science and technology of aerospace propulsion and power through the dissemination of original archival papers contributing to advancements in airbreathing, electric, and advanced propulsion; solid and liquid rockets; fuels and propellants; power generation and conversion for aerospace vehicles; and the application of aerospace science and technology to terrestrial energy devices and systems. It is intended to provide readers of the Journal, with primary interests in propulsion and power, access to papers spanning the range from research through development to applications. Papers in these disciplines and the sciences of combustion, fluid mechanics, and solid mechanics as directly related to propulsion and power are solicited.

JOURNAL OF SPACECRAFT AND ROCKETS

This Journal is devoted to reporting advancements in the science and technology associated with spacecraft and tactical and strategic missile systems, including subsystems, applications, missions, environmental interactions, and space sciences. The Journal publishes original archival papers disclosing significant developments in spacecraft and missile configurations, re-entry devices, transatmospheric vehicles, systems and subsystem design and application, mission design and analysis, applied and computational fluid dynamics, applied aerothermodynamics, development of materials and structures for spacecraft and missile applications, space instrumentation, developments in space sciences, space processing and manufacturing, space operations, interactions with spacecraft and sensors, design of sensors and experiments for space, and applications of space technologies to other fields. The context of the Journal also includes ground-support systems, manufacturing, integration and testing, launch control, recovery and repair, space communications, scientific data processing, and human and environmental factors in spacecraft and mission design. Papers also are sought which describe the effects of propulsion, guidance and control, thermal management, and structural systems on spacecraft and missile design and performance.

JOURNAL OF THERMOPHYSICS AND HEAT TRANSFER

This Journal is devoted to the advancement of the science and technology of thermophysics and heat transfer through the dissemination of original research papers disclosing new technical knowledge and exploratory developments and applications based on new knowledge. The Journal publishes qualified papers that deal with the properties and mechanisms involved in thermal energy transfer and storage in gases, liquids, and solids or combinations thereof. These studies include conductive, convective, and radiative modes alone or in combination and the effects of the environment.