Special Issue

Energy Deposition for Aerospace Applications

Message from the Guest Editor

This Special Issue is dedicated to studies in the field of the control of supersonic/hypersonic flows past aerodynamic bodies. The Special Issue focuses on high-speed flow control via an energy deposition at different points of a flow or on a body surface. Laser pulses, microwave discharges, electric discharges of various types, or their combinations can be used as instruments for the implementation of energy effects. The problems under consideration are characterized by significant compressibility of the gas medium, the presence of shock waves and shock–vortex configurations, gasdynamic instabilities, and multiscale processes. Therefore, the problems of qualitative modeling come to the fore. The planned topics include (but are not limited to) the following areas: flow control, supersonic/hypersonic streamlining, shock waves, vortices, shock–vortex structures, boundary layers, heat fluxes, gasdynamic instabilities, turbulence, computational CFD methods, difference scheme construction, code testing.

Guest Editor

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Message from the Editor-in-Chief

Energies is an international, open access journal in energy engineering and research. The journal publishes original papers, review articles, technical notes, and letters. Authors are encouraged to submit manuscripts which bridge the gaps between research, development and implementation. The journal provides a forum for information on research, innovation, and demonstration in the areas of energy conversion and conservation, the optimal use of energy resources, optimization of energy processes, mitigation of environmental pollutants, and sustainable energy systems.

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