

Special Issue

Under-Expanded Jets

Message from the Guest Editors

This Special Issue aims to provide quantitative insights into the key sonic and mixing characteristics of under-expanded jets particularly those issued from millimetre-size nozzles. Authors are encouraged to submit high quality manuscripts on analytical, computational (high fidelity modelling) and experimental (advanced quantitative measurement techniques) studies in this field. The topics of interest may include, but are not limited to, free and impinging jets, co and cross-flows, near-nozzle shock structures, Mach disk dimensions and curvature, vortical and coherent structures and shear layers, turbulent mixing characteristics, aeroacoustics and screech tone, shock-shear interactions, viscous effects, farfield characteristics, effects of the ambient medium thermodynamic conditions, effects of the nozzle diameter and topology (lip geometry and exit profile), hydrodynamic instabilities, compressible in-nozzle flows, different jet/ambient fluids, computational modelling with real fluid equation of state and properties, reacting under-expanded jets, numerical methods, such as advanced shock capturing techniques.

Guest Editors

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Aerospace adheres to rigorous peer-review as well as editorial processes and publishes high quality manuscripts that address both the fundamentals and applications of aeronautics and astronautics. Our goal is to enable rapid dissemination of high impact works to the scientific community.

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