Special Issue

Modelling and Simulation of Turbulent Flows

Message from the Guest Editors

Modelling and simulation of turbulent flows constitute a fundamental approach to providing in-depth insights into the underlying flow physics of various turbulence mechanisms and how to apply them in various engineering applications. There are motivations and initiatives behind a large number of research projects spanning from aerospace, automotive and renewable energies to unconventional applications in pedestrian comfort cardiovascular biomedicine, such as COVID-19 particles dispersion. This Special Issue of *Fluids* is dedicated to the recent advances in computational modelling and simulation of turbulent flows including numerical methods development and its applications. This includes, but is not limited to, direct numerical simulation (DNS), large-eddy simulation (LES) of fundamental fluid flows to explore turbulent flow structures formation, shock-wave boundary layer interactions and RANS–LES hybrid methods employed in a variety of external and internal turbulent flows with the inclusion of applying new machine learning and data-driven methods for the prediction of turbulent flows.

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