

Special Issue

Experimental and Numerical Investigation of Flow Instability

Message from the Guest Editor

Flow instability is an important research topic in the fields of aerospace, nuclear, and mechanical engineering and unstable flow behavior can affect system performance and cause cooling degradation, overheating with possible meltdown, mechanical vibration, pressure pulsations, and reduced system efficiency. Advanced numerical simulation and experimental methods are important means to study the onset of flow instability and the causes of unstable flow behavior. Recently, there have been a number of works on supercritical flow stability using experimental methods, advanced numerical simulation, and linear stability methods. Yet, their success has been varied and inconsistent, pointing to the need for continued research. Nevertheless, numerical simulation and experimentation remain important as they allow us to learn more about how to reduce the onset of unstable flow behavior and eliminate it altogether.

Guest Editor

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