Special Issue

Convective Flows and Heat Transfer

Message from the Guest Editors

Convective heat transfer is involved in many industrial applications and multiple scientific problems of a fundamental nature. In multi-constituent fluids, it generally leads to convective mass transfer, coupled eventually with heat transfer. This Issue welcomes recent scientific contributions and theoretical, numerical, and experimental advances in anisothermal fluid flow and convective heat and mass transfers. It provides an overview of the current integration of research on fundamental and applied aspects of energy and materials. This edition captures some of the recent advancements in convective heat transfer within multi-component fluids, which often involves coupled convective mass and heat transfer. Additionally, it serves as a platform to address selected multidisciplinary challenges and aims to answer open questions at the intersection of various disciplines. Such convective transfer is the key parameter in most material processes and has become central in the recent developments in energy production, storage, and transformation. Indoor/outdoor Air quality, environment, and building energy-reducing demand are the other important applications.

Guest Editors

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