

Special Issue

Hydrodynamics and Heat Mass Transfer in Two-Phase Dispersed Flows in Pipes or Ducts

Message from the Guest Editors

Two-phase gas–liquid flows are frequently encountered in energy, nuclear, chemical, geothermal, oil and gas, and refrigeration industries. Two-phase gas–liquid flows can occur in various forms, such as flows transitioning from pure liquid to vapor as a result of external heating; separated flows behind a sudden flow expansion or constriction, and dispersed two-phase flows where dispersed phase is present in the form of liquid droplets or gas bubbles in a continuous carrier fluid phase (i.e., gas or liquid). Typically, such flows are turbulent with a considerable interfacial interaction between the carrier fluid and the dispersed phases. The interfacial heat and mass transfer is very important in the modeling of such flows. The variety of flow regimes significantly complicates the theoretical prediction of hydrodynamics in the two-phase flow. Thus, the application of numerous hypotheses, assumptions, and approximations is required. [...]

For further reading, please follow the link to the Special Issue Website:

https://www.mdpi.com/journal/water/special_issues/AH73KT3837

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In the context of global changes, the sustainable management of water cycles, going from global and regional water cycles to urban, industrial and agricultural water cycles, plays a very important role on the water resources and on their relationships with food, energy, biodiversity, ecosystem functioning and human health. *Water* invites authors to provide innovative original full articles, critical reviews and timely short communications and to propose special issues devoted to new technological and scientific domains and to interdisciplinary approaches of the water cycles. We ensure a critical review process and a quick turnaround between submission and final decision.

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