

Special Issue

Gas-Liquid Two-Phase Flow in the Pipe or Channel

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, and dispersed two-phase flows where one phase is present in the form of droplets, or bubbles (i.e. liquid or gas) 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 variety of flow regimes complicates significantly the theoretical prediction of hydrodynamics of the two-phase flow. Often the complexity of flow structure makes it impossible to describe theoretically its behavior, and so empirical data is applied instead. The correct simulation of two-phase gas-liquid flows is of great importance for safety and the prediction of energy equipment elements.[...]

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

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

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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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