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Computational Methods for Two-Phase Flows

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ABSTRACT

Two-phase flows is currently one of the most challenging and interesting topics in fluid mechanics due to the complexity introduced by the presence of an interface and the variety of scales present in the flow. The numerical modeling of two-phase flows has major impact in industry and research field, attracting even more attention due to the difficulties of setting up physical experiment facilities and test cases repeatability. The aim of this mini symposium is to address relevant issues found in different numerical methods in two-phase flows and their applications to industry as well as to provide an opportunity for discussion on cutting-edge methodologies for fundamental and applied research. Topics of interest of the minisymposium include cooling of electronics, oil and gas applications, boiling in heat exchangers and nuclear reactors, cavitation, bubble and drop dynamics, two-phase flow in porous media.