

Non-homogeneous and multicomponent fluids for environmental applications

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Short Description

In numerous industrial and environmental applications the fluids under consideration exhibit important local variation of material properties such as density, viscosity or concentration. This non-homogeneity of fluids and flows can appear in compressible as well as incompressible fluids as a consequence of mixing of several fluid components or as an action of gravity, rotation or chemical reactions. In the framework of the proposed minisymposia we would like to cover several key aspects of these phenomena from the point of view of their mathematical modeling and analysis, numerical solution and technical applications. The main aim and focus will be on models and applications in environmental flows.