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FREE-SURFACE, MOVING-BOUNDARY AND MULTI-PHASE FLOWS

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ABSTRACT

This mini-symposium is devoted to free-surface, moving-boundary and multi-phase flows. We invite all researchers working in the area to present their recent developments and applications.

The main topics are:
- Numerical algorithms for describing free-surface, moving-boundary and multi-phase flows.
- Interface-tracking, interface-capturing and diffuse-interface techniques.
- Fixed/moving mesh and meshfree formulations.
- Volume of fluid, level-set, and Eulerian-Lagrangian methods.
- Surface reconstruction and renormalization operators.
- Surface tension, capillarity and transport of surfactants.
- Wetting/Drying of surfaces.
- Experimental validation.
- Scientific and technological applications.

These topics cover relevant areas of computational mechanics knowledge with many recent developments.