4th Polish Congress of Mechanics & 23rd International Conference on Computer Methods in Mechanics
PCM-CMM-2019
September 8-12, 2019, Krakow, Poland

MODELLING AND SIMULATION OF MULTIPHASE FLOWS

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TOPICS

- dispersed flows with solid particles, droplets or bubbles
- complex-structure multiphase flows (with deformable interphasial surfaces)
- Eulerian (two-fluid) and Lagrangian (fluid-particle) approaches for dispersed flows
- interface capturing/tracking approaches, particle methods (SPH), Lattice-Boltzmann Method (LBM)
- fundamental developments, new theories and concepts, assessment of current and new techniques
- multi-scale and multi-physics formulations
- engineering applications including thermofluids, hydrology, micro-fluidics, etc.,
- two-way coupling effects: momentum, mass and energy
- macroscopic (homogenized) description and rheology of suspensions
- related topics, not mentioned above