

DIRECT NUMERICAL SIMULATION OF MULTIPHASE FLOWS WITH VOLUME OF FLUID METHODS

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I will present the numerical issues, the successes and the perspective of direct numerical simulations using the volume of fluid method. The volume of fluid method has the capability of dealing with very complex interfacial and multiphase flow problems, such as bubble columns, high speed atomizing jets or breaking surface waves. Investigating these problems requires both a good numerical technique and physical insight, that allows progress to be made in conjunction with experimental investigations.

Keywords: Simulation; Volume of Fluid; DNS; multiphase flow; droplets;