



DISPERSED TWO-PHASE FLOWS 2020

Meeting organized by Société Hydrotechnique de France
232nd Scientific & Technical session of SHF

September 21st-23rd, 2020

Ecole Normale Supérieure de Lyon
15 Parvis René Descartes, 69007 Lyon, France

In many industrial or environmental situations, particles, drops or bubbles are dispersed in a carrier fluid. Understanding and modeling dispersed flows is therefore a major issue for many applications including **chemical engineering** (bubble columns, water treatment, fluidized beds, oil refining), **nuclear industry** (boiling in steam generators, containment spray systems), **environmental engineering** (sediment transport, coastal erosion, river restoration), **geophysics** (volcanic processes, fluid migration in sedimentary basins), **astrophysics** (protoplanetary dust, planet formation) and **combustion applications** (atomization, spray combustion)...

Objective

The objective of the conference is to bring together researchers from different communities (academics and researchers from industrial research institutes in fluid mechanics, chemical engineering, ...) working on fundamental problems involving dispersed flows.

Schedule

The conference will consist in about 60 selected oral presentations (~15') with several thematic sessions in series. Extra time outside the formal session will be dedicated to discussions between participants.

Contributions of work in progress are welcome.

The conference is international, and will be held in English.

Topics

Experimental, numerical and theoretical studies will be presented on the following topics:

- Dynamics and transfer around isolated particles
- Interfacial dynamics (deformation, coalescence and rupture)
- Hydrodynamics of dispersed flows (turbulence, dispersion, two-way coupling)
- Mixing, transfers and phase-change in dispersed flows
- Transport in dispersed flows at high volume fraction
- Complex dispersed flows: density/viscosity stratification, granular & non-Newtonian flows
- Development of experimental methods
- Development of numerical methods
- Multiscale, multiphysics modeling

Important dates

Abstract submission deadline:

May 15th, 2020 (1 page abstract)

Notification of acceptance:

June 15th, 2020

Organizers: Société Hydrotechnique de France
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