

Investigations of bubbly and particulate flows in process engineering

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Thursday, June 4th (2026), 16:30 Paris Time
[LMFL Fluid Mechanics Webinar Link](#)

Abstract

Multiphase flows play a paramount role in process engineering and are very interesting, both from a fundamental point of view as well as for a broad variety of applications. Due to the complexity of such flows, both experimental investigations and numerical simulations – ideally in combination – are useful to deepen our understanding, optimize existing installations and reveal innovative designs. In this presentation, different flow configurations will be considered both experimentally and numerically, illustrating the main focus of our current research on multiphase flows relevant for process and environmental engineering.

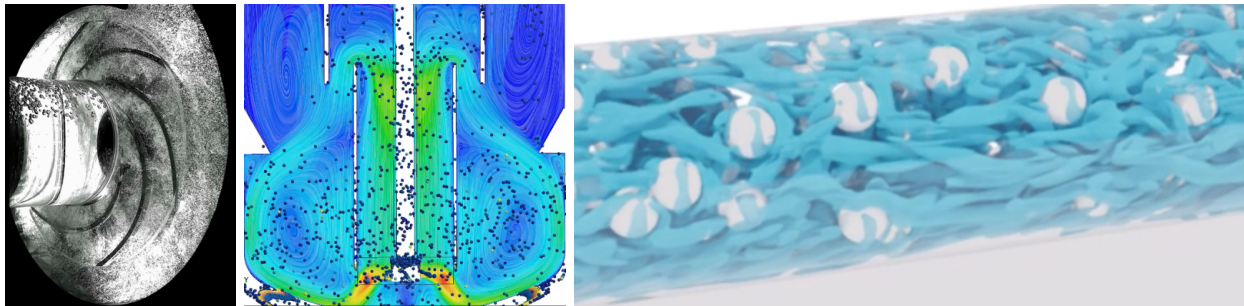


Figure 1: Examples of application. Left: bubbly flow in centrifugal pump. Center: CFD of a crystallizer. Right: DNS of particles in a pipe.

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