ID de Contribution: **7** Type: **Mobilité entrante septembre 2025**

Experimental study of multiphase flows

jeudi 10 juillet 2025 14:20 (20 minutes)

ÉTUDIANT 7 : SHANA DJOUAHER + AURÉLIEN BERTRAND
We are looking for a motivated student at Master level to conduct a research project in Fluid Mechanics. The research is on the topic of multiphase flows, and will be on one of the two projects described in the attached document (chosen in discussion with the future supervisor). The project will be mainly experimental. Over the 6 month of the project, the student will participate in the development and testing of the experimental setup. He/She will then establish the experimental protocol and then run experimental campaigns to acquire data. A parametric study will be performed in order to obtain both qualitative and quantitative data about the phenomenon studied. Then, the student will analyse and interpret data, using image analysis techniques requiring some coding skills (in e.g. python or Matlab). Finally, the data acquired will be compared to existing models in order to draw conclusions about the study. The student will also conduct a literature review, and some limited theoretical analysis of the problem using dimensional analysis and scaling analysis.

Some experimental skills are required as well as knowledge about fundamental fluid mechanics and some coding skills..

Master

Mécanique

Laboratoire d'accueil

LMFA

Composante ou Département Composante

MECA

Auteurs principaux: BERTRAND, Aurélien (Centrale lyon); DJOUAHER, SHANA (Laboratoire de Mécanique des Fluides et d'Acoustique)

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Classification de Session: Jeudi après midi