

Fourth Workshop on Compressible Multiphase Flows - Derivation, Closure laws, Thermodynamics

The fourth Workshop on Compressible Multiphase Flows took place in Strasbourg University (IRMA), in May 30-31 of 2022. It has received financial support from GdR MaNu, Strasbourg University and EDF.

The workshop still gives focus on the modeling issues and analysis associated with the modeling of two-phase and multiphase flows. As it occurred in the previous sessions (2018, 2019, 2021), numerical techniques, which are of course mandatory in order to obtain approximate solutions of the proposed sets of PDEs, have not been discussed during the workshop.

The invited speakers and other attendees have mainly discussed about modelling techniques, difficulties arising in closure laws involved in Equations of State and source terms for mass, momentum and energy transfer terms, and also about relevant closures in order to handle shock waves / discontinuous solutions. On-going mathematical analysis of the latter sets of PDEs was also a prominent topic.

The list of participants, and the titles and abstracts of invited talks can be found on the following website: <https://indico.math.cnrs.fr/event/7728/>

We, co-editors of this volume of ESAIM Proceedings, which also includes two contributions to the third Workshop session held in 2021, would like to thank all invited speakers and authors for their valuable contributions. We also warmly thank all referees for their work, their useful analysis and interesting comments, which of course helped much in improving the final versions of papers.

The work of the ESAIM Proceedings and Surveys editorial team is eventually warmly acknowledged.

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