## DROPIT

## Summer School 2018

Research Training Group 2160/1: Droplet Interaction Technologies

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DROPIT Summer School aims to bring together multidisciplinary scientists to work on droplet interaction related topics using a combination of experimental, numerical and analytical tools. In line with this objective, the doctoral researchers of DROPIT form international working groups with invited experts. Each group consists of three to eight persons who are given the opportunity to work together intensively for two weeks in September. All groups will meet during kickoff and final meeting where the doctoral researchers will present their projects.

## Projects

- Diffuse Interface Models of Baer-Nunziato Type
- Experimental and Numerical Investigation of Wetting Phenomena on Selected Structured Surfaces and Porous Media
- Coupling Porous Media and Free Flow with Help of an Upscaled Phase Field Model
- Investigation on the Mixing Behavior for Droplet Impact onto Miscible and Immiscible Liquids
- Oscillation of an Evaporating Spheroidal Drop: Effect on Frequency and Amplitude









Pressure disturbances and sharp inter- Rendered tomographic acquisition of a Coupled macroscale model with sub- Outcomes of droplet impacts onto a conface of a wobbling droplet to be compa- drop deposited on a vinyl surface coated scale phase field model.

face of a wobbling droplet to be compa-
red with the results obtained with a dif-
fuse interface model.

drop deposited on a vinyl surface coated with a dispersion of super-hydrophobic nano-agglomerates.

(a) Planchette et al., Proceedings of ILASS-Europe 2017.

## **About DROPIT**

- **Kickoff meeting**: 4<sup>th</sup> September 2018 Conference center IBZ in Stuttgart, Germany.
- **Final meeting**: 21<sup>st</sup> September 2018 Conference center IBZ in Stuttgart, Germany.
- Farewell dinner: 21<sup>st</sup> September 2018
  Restaurant in the *Fernsehturm* (television tower) in Stuttgart, Germany, with a perfect view over the city.

Venue & Dates

For the meetings, the guests will be hosted at the *campus.guest* hotel directly on campus.





Hotel campus.guest

Stuttgarter Fernsehturm

Between the two meetings, the groups will work in one of the participating universities.

- DROPIT brings together researchers from the University of Stuttgart in Germany, the University of Bergamo and the University of Trento in Italy.
- Currently, more than ten doctoral and several post-doctoral researchers are working in synergy to solve droplet dynamic problems.
- DROPIT aims at investigating the effects of micro-scale phenomena on the macroscopic flow properties in three thematic areas: drop-gas, drop-wall and drop-liquid interactions.





- The research group approaches the problems experimentally, numerically and with theoretical tools.
- A qualification program aims at developing personal, teamwork and organizational skills of the doctoral researchers. This includes specialized courses, international workshops, visiting researchers and the summer school.

For more information, visit the DROPIT website on https://www.project.uni-stuttgart.de/dropit/qualification/summer\_school







