

### 3 Ph.D. positions on “Droplet Interaction Technologies”

<b>Faculty/department:</b>	Aerospace Engineering and Geodesy
<b>Level:</b>	M.Sc.
<b>Maximum employment:</b>	Maximum of 39.5 hours per week
<b>Duration of contract:</b>	
<b>Ph.D. positions:</b>	Three years (extendable by one year)
<b>Salary scale:</b>	TV-L statutory salary scale
<b>Start of employment:</b>	The earliest possible start would be 01.04.2021

One position is related to the visualization of multiphase flow phenomena (see SP-C4 under the project link given below) and two position are related to numerical and experimental investigations in droplet-film and droplet-wall interactions.

The selected candidates will participate in the International Research Training Group (IRTG): DROPIT. DROPIT is led by the University of Stuttgart and envisages a partnership among the Universities of Stuttgart, Bergamo and Trento. The objective is to understand how micro-scale transport processes affect macroscopic flow properties. The research programme is organised in three thematic research areas (TAs): drop-gas interaction (TA-A), drop-wall interaction (TA-B) and drop-liquid interaction (TA-C). A key feature is the interdisciplinary approach, which envisages the synergetic integration of experimental (X-ray micro-CT, micro-PIV), numerical (DNS, discontinuous Galerkin schemes, Direct Simulation Monte Carlo), and analytical methods (heat and mass transfer models for evaporation, interactions). A detailed description of the project and the related subprojects can be found at: <https://www.project.uni-stuttgart.de/dropit/>.

DROPIT is expected to have a significant impact on a wide range of environmental and industrial applications as well as academic aspects. Thus, the selected candidates are likely to be in an exceptionally good starting position at the end of their post for future academic work and/or industrial tasks. DROPIT includes an extensive qualification programme to promote the early independence of doctoral researchers. All vacancies for Ph.D. positions include a full-time position for an initial period of 3 years, with the possibility of extension for another year. Remuneration is based on the TV-L statutory salary scale and its associated public sector benefits.

#### Desired skills and experience

The successful candidate has a M.Sc. degree in engineering, physics or mathematics. For one of the open positions (SP-C4) a M.Sc. degree in informatics / computer science would be preferable.

Additionally, candidates should have excellent writing skills. Fluency in English is required; command of German would be appreciated.

#### Information and application

For more information, please contact Dr. Anne Geppert, phone: +49 (0)711-685-62413. To apply, please e-mail a detailed CV, publications list, two references, and a letter of application by 07.02.2021 to [dropit-application@itlr.uni-stuttgart.de](mailto:dropit-application@itlr.uni-stuttgart.de).