



25.06.2024

Student Research Assistant (HiWi) for: research project DROPIT

Subproject TA-C: Drop-Film Interactio

The Droplet Dynamics research group at ITLR, University of Stuttgart, is looking for a dedicated and motivated student assistant for the subproject: Investigation of 3D height development in the crown crater during early crown formation. The project is dedicated to the exploration of phenomena related to the impact of droplets on thin liquid films and their crater development.

A major challenge lies in the microscopic observation of the flow. This is due, among other things, to the relatively fast fluid movements in the very thin film as well as the unsteadiness of the flow. An essential prerequisite for the experimental investigations is the precise spatial resolution of the flow. For this purpose, the evaluation routine of the defocusing method is to be improved using the GDPT method.

Task:

- Support in the preparation and execution of experimental investigations into droplet-film interaction at the test rig
- Familiarization with the topic of micro-PTV, GDPT, and defocusing
- Restructuring of MATLAB code and further modularization
- Further development and implementation of the evaluation routine (GDPT)

Requirements:

- Enrolled student in a natural science or engineering program
- Proficient in German or English, both written and spoken
- Strong programming skills in MATLAB or a comparable programming language

Wünschenswerte Kenntnisse:

- Advanced programming skills in MATLAB

Dauer/-Umfang:

- Starting immediately (Dezember 2023)
- 20-60 hours per month
- Initial contract for 3 months (extendable)

If interested and for further information

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