PhD Position:

Free Drop-Particle Collisions in Air

Graz University of Technology, Austria

Institute of Fluid Mechanics & Heat Transfer

Project

The project is financed by the Austrian Science Fund (FWF) and hosted by the Institute of Fluid Mechanics and Heat Transfer of Graz University of Technology (Austria). The research, led by Assoc. Prof. Dr. Carole Planchette, focuses on interfaces and capillarity driven fluid mechanics. At the center of this activity field, the PhD thesis aims:
- to better describe and understand the collisions between freely moving particles and drops. The particles will be produced in the air by hardening a regular stream of droplets made of a photo-polymerisable solution. Experimental work and physical analysis will be developed with special emphasis on the influence of the liquid properties and contact angle on the collision outcomes.
- In a second step, wet and soft particles will be used to investigate collisions corresponding to more realistic conditions.

Profile

Candidates must hold a Master degree in Physics, Mechanical or Chemical Engineering, or an equivalent degree. Though not compulsory, a background in fluid mechanics and experience with experimental work is appreciated.

Proficiency in English (both oral and written) and good communication skills are required.

We are looking for a highly driven candidate, showing adaptability and motivated to work in an international research team.

Offer

Research assistant position at the TU Graz (Austria) in the international, multidisciplinary and dynamic work environment of the Institute of Fluid Mechanics and Heat Transfer, providing a top-quality supervision of the PhD studies.

Start / Duration: 01.10.2024 / 3 years
Full time employment
Salary according to Austrian collective agreement

Contact

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