COUPLED PROBLEMS ASSOCIATED WITH LIQUID JETS

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ABSTRACT

The special session is about the multiscale, multiphysics, and multiphase modelling of liquid jets as they appear in a multitude of technological applications, from cooling large steel ingots on tenths of meters scale to microfluidic applications associated with sample delivery systems in synchrotrons and free electron lasers. Liquid jets can include droplets of mixing or non-mixing fluids, gas bubbles, or solid particles. They can form simple shapes like falling water films to complex structures generated by swirling nozzles under the assistance of focusing gas or external electromagnetic and ultrasound fields. They can be laminar or turbulent and designed to stay focused or atomised. This special session aims to invite state-of-the-art research in the understanding and computational modelling of the associated coupled problems.

REFERENCES

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