

# Colloquium Thermo- and Fluid Dynamics

## Flexible particles in turbulent flow

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In open ocean, microplastics are often formed by the fragmentation of larger litters during storms. In the papermaking industry, fibers are sorted according to their flexibility during the fractionation process. In these two examples, the transport of particles is strongly coupled to their deformations in turbulent environments. In this presentation,

I will give an overview of the work we did at IRPHE on the characterization of the deformations of flexible fibers and discs in turbulence and some consequences on the transport of such particles.

*Gautier Verhille is CNRS researcher at IRPHE, Marseille, France. After a PhD on the dynamo instability at the Ecole Nationale Supérieure (ENS) in Lyon, France, where he worked on the Von Karman Sodium (VKS) experiment, he did a postdoc on fluid-structure instabilities in rocket engine at IRPHE. Since 2014, he has built a team working on the dynamics of flexible particles in turbulent flows with application to microplastics formation.*



Date: Wednesday, 1 November 2023

Time: 16:15 - 17:30 h

Place: ETH Zurich, ML F 36

Host: Prof. Filippo Coletti, IFD