

Kolloquium Thermo- und Fluiddynamik

Emerging technologies at the multiphase thermofluidics-interfacial nanoengineering nexus

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Multiphase thermofluidics and interfacial nanoengineering impact

basic industries such as energy, water, transportation, etc.

Driven by cost, consumption, and safety concerns, the-

re has been an inexorable trend towards achieving

higher performance and improved efficiencies in these areas. However, in many cases further

improvements are fundamentally limited by mo-

inprovements are randamentatly timited by mo

mentum/heat/mass transport occurring at inter-

faces. In this talk, I will show how nanoenginee-

red surfaces can be rationally designed to alter

interfacial transport phenomena, including lever-

aging sunlight to benefit droplet impact, freezing/icing,

condensation, and related thermofluidic processes, setting

a pathway towards exceptional performance enhancements.

Date: 24.11.2021 Time: 16:15h

Place: ETH Zurich. ML H 44

Host: Prof. Filippo Coletti, IFD

Mandatory COVID certificate

