

Department of Mechanical and Biomedical Engineering

Seminar Series

Drop impacts on very cold substrates

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Professor & Head of the Mechanics Department,
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Date	May 21, 2018 (Monday)
Time	11:00am – 12:00noon
Venue	Room B6619 (MBE Conference Room), Yeung Kin Man Academic Building

Abstract

Drop impact is at the heart of many multiphase flows and its understanding represents an important challenge for many applications. Here, we will discuss recent results obtained when a drop of water is impacting a very cold substrate so that the water freezes during the dynamics and ice is formed eventually. We will discuss the different patterns that are formed by this impact and which physical parameters control these dynamics. Simple theoretical arguments based on the analysis of the heat transfers in this configuration will be presented.

About the Speaker

Christophe Josserand is currently director of research at CNRS and Professor at Ecole Polytechnique where he serves as the Head of the Mechanics Department. Previously, he was affiliated with Institut D'Alembert of the University Pierre and Marie Curie in Paris UPMC. His main research interest is on surface dynamics, either through multiphase flows where the interface dynamics is crucial, surface vibrations (elastic plates or liquid surfaces) or interface deformations. It concerns

different scientific contexts, from environmental flows (by modelling for instance the flood dynamics or the erosion induced by the impact of a drop) to industrial applications (liquid atomization or inkjet printing for instance).

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All are Welcome!

MBE Seminar 2017-18/39