



2019

BURGERS SYMPOSIUM

Conference Centre 'De Werelt' in Lunteren

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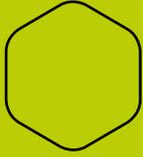
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MAY

2019

The Burgers Symposium is a two-days meeting of the JM Burgers Centre (JMBC), and it forms the annual meeting platform for all (junior and senior) scientists of the JMBC.

The programme of the Symposium is attractive for all attendees, both junior and senior, both working on curiosity-driven and applied research projects, both numerically and theoretically oriented.



The Symposium programme includes:

- Burgers Lecture by Prof. Emmanuel Villermaux, Institute IRPHE & Aix-Marseille Université, Marseille (F)
- Evening Lecture by Dr Claudia Cenedese, Woods Hole Oceanographic Institution, Woods Hole (USA)
- Parallel sessions with oral presentations by junior scientists (mostly PhD students and postdocs)
- Plenary session with presentations by tenure-trackers and other junior staff members.
- Session of flash pitches by PhD students in their first / second year
- The JMBC Gallery of Fluid Motion: exposition of stunning movies and pictures of fluid-dynamical phenomena
- Award session of prizes:
 - Charles Hoogendoorn Fluid Dynamics Award (KIVI)
 - Young Scientist Awards for the two best presentations by junior scientists
 - Gallery Award for the most attractive entry of the Gallery of Fluid Motion
- Ample possibilities to meet colleagues and friends, during the coffee / tea breaks, lunches, the joint dinner, and the 'evening session' on the first day.

All JMBC members are invited to join in this annual meeting !
In particular we hope to welcome many (if not all) of the JMBC PhD students and postdocs.

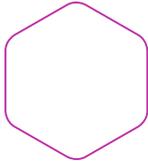
Registration for the Symposium and hotel reservations should preferably be done in a coordinated way per JMBC group. We have invited all the JMBC professors to coordinate the registrations, hotel reservations, junior-speaker suggestions for all the members of their group, in order to promote a coherent organisation.

Other interested persons (members of the Industrial Advisory Board, and other interested individuals, ...) should register individually via the JMBC website:

Registration : www.jmburgerscentrum.nl

We are looking forward to seeing you at the Burgers Symposium
in Lunteren on 21 & 22 May!

GertJan van Heijst
Ilse Hoekstein



BURGERS LECTURE

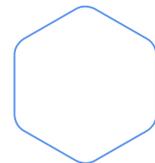
Prof Emmanuel Villermaux - Institute IRPHE & Aix-Marseille Université Marseille (F)



The evaporation of dense sprays: misconceptions and mixing analogy

We explore the processes by which a dense set of small liquid droplets (a spray) evaporates in a dry, stirred gas phase. Experiments demonstrate that the lifetime of an individual droplet embedded in such a spray is much larger than expected from the usual d^2 -law describing the fate of a single drop evaporating in a quiescent environment. By analogy with the way mixing times are understood from the convection-diffusion equation for passive scalars, we show, thanks to unique in-situ measurements, that the spray boundary with the diluting environment is slaved to the dynamics of its saturating vapour concentration field, whose structure is analyzed for different well defined local flow topologies.

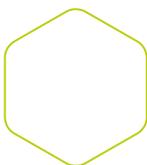
EVENING LECTURE



Dr Claudia Cenedese - Woods Hole Oceanographic Institution Woods Hole (USA)

Recipes for melting icebergs and glaciers

With rising global temperatures there has been an observed increase in the discharge of ice from the Antarctic and Greenland ice sheets. Glacial submarine melting and the associated flux of meltwater are affected both by the fjord stratification and the discharge of surface runoff at the base of a glacier, i.e. subglacial discharge. In particular, the latter generates buoyancy driven plumes rising vertically and mixing with the submarine meltwater and the entrained ambient waters. Furthermore, iceberg calving is thought to contribute to approximately half the mass loss in both Greenland and Antarctica. Novel laboratory experiments showed that side melting of icebergs subject to an ambient flow is controlled by two distinct regimes, which depend on the melt plume behaviour and which produce a nonlinear dependence of melt rate on ambient velocity.



CHARLES HOOGENDOORN AWARD (KIVI)

Dr Yasin Toparlar (former PhD student in the Department of Built Environment of Eindhoven University of Technology)



This KIVI prize for the best PhD thesis in fluid dynamics defended in the Netherlands in the academic year 2017 – 2018 has been awarded to Dr. Yasin Toparlar for his PhD thesis: "A multiscale analysis of the urban heat island effect: from city averaged temperatures to the energy demand of individual buildings", defended (cum laude) on 25 April 2018 (supervisors Prof. Bert Blocken, Prof. GertJan van Heijst and Dr Bino Maiheu, VITO (B)).