## **H**zürich **DARCH**

## Urban Physics Winter School 2015, 25 - 30 January, Ascona, Switzerland

**Scope** The school aims at providing the participants with in-depth knowledge on the latest advances in the fields of climate science, building aerodynamics, meteorology, urban microclimate and human physiology, as well as on the impacts of these developments on e.g. the mitigation of urban heat islands, urban energy and the improvement of human comfort, safety and health. The idea is to bring the participants in contact with leading researchers in the field, to encourage a constructive and open dialogue and to incite collaborations between theorists and experimentalists at an international level.



Moisture release from plant leaf into a developing boundary layer (Defraeve, et al. 2014)

**Registration** Participants can register until September 25, 2014 at the fee of 970 CHF (800 euro) per person. Later registration will cost 1270 CHF. Registration fee covers course material, accommodation (shared double room) and full board. Payments by credit card upon registration via registration plattform. The number of participants is limited to 35.

For further information and registration please go to: www.carmeliet.arch.ethz.ch/Events/UP2015  $\rightarrow$ 



**Programme** The School starts with an icebreaker reception (Sunday). The lectures are thematically organized into four themes, namely air, water, fire and earth . Halfway a social excursion is planned. The tentative program can be found in the table below. All lectures will be taught in English. Lecture notes will be provided digitally.



Multiscale modelling of turbulent flow over staggered cubes (Vonlanthen, Carmeliet, 2014)

**Accommodation** Participants will stay at the Congressi Stefano Franscini (CSF) conference centre at Monte Verita. The centre is situated on the hill behind Ascona, overlooking Lago Maggiore. Since a limited number of single rooms is available on site, room sharing is encouraged. The registration form has an option to specify the name of someone you wish to share with. For single rooms a surcharge has to be paid. Lunch and dinner are buffet meals with drinks and coffee included. The first meal is the evening meal on Sunday the 25th, and the last meal is lunch on Friday the 30th.

For further information on accommodation please see: http://www.csf.ethz.ch/  $\rightarrow$ 



Heavy water transport due to evaporation in leaves (Defraeye, et al. 2014)

## Speakers

ALLEGRINI Jonas (Empa, CH) BARLOW Janet (Uni. Reading, UK) BLOCKEN Bert (TU/e, NL) BRUNNER-Dominik (Empa, CH) BURLANDO Paolo (ETHZ, CH) CARMELIET. Jan (ETHZ, CH) DEROME Dominique (Empa, CH) DEFRAEYE. Thijs (KULeuven, BE) L'INN.Rod-(L'ANL, USA) MOONEN Peter (Uni. Pau, F) NEOPHYTOU Marina.(UCY, CY) ROBINSON Darren: (Uni: Nottingham, UK) ROSSI Rene (Empa, CH) SCHAER Christoph (ETHZ, CH)

> Wind flow, raindrop trajectories and catch ratio on St. Hubertus tower, Netherlands (Kubilay, Derome, Blocken, Carmeliet, 2013)

	Sunday	Monday	Tuesday	Wedensday	Thursday	Friday
Morning		climate change	human physiology	air pollution &	urban hydrology &	urban ecosystems
Session 1				atmospheric chemistry	forecasting	
8:15-10:00		Schaer	Rossi	Brunner	Brulando	Linn
Break						
Morning		urban meteorology	urban microclimate		urban microclimate	urban microclimate
Session 2			& breathability	student	& wind-driven rain	& ecosystems
				presentations		
10:30-12:15	arrival	Barlow	Neophytou		Derome	Defraeye
Lunch	of					
Afternoon	participants	CFD for	wind tunnel for		city energy	urban fire
Session 2		urban applications	urban applications		simulation	simulation
13:45-15:30		Blocken	Allegrini	social	Robinson	Linn
Break				excursion		
Afternoon		multiscale modeling	urban microclimate		urban microclimate	
Session 2		strategies	& wind comfort		& energy	departure of
						participants
16:00-17:45		Moonen	Blocken		Carmeliet	
Dinner	Icebreaker	Dinner	Dinner	Dinner	Dinner	

The Schoolisjointly organised by: Jan CARMELIET (ETH/Empa, Switzerland), Bert BLOCKEN (TU/e, The Netherlands), Marina NEOPHYTOU (UCY, Cyprus)