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Sant'Agostino Conference Room  
Via Fara, 24129 Bergamo



**UNIVERSITÀ DEGLI STUDI DI BERGAMO**  
Department of Engineering and Applied Sciences

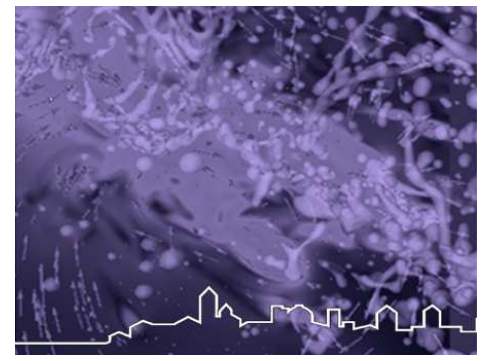
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**UNIVERSITÀ DEGLI STUDI DI BERGAMO**  
Department of Engineering and Applied  
Sciences

# DIPSI Workshop 2016

## Droplet Impact Phenomena & Spray Investigations

Numerical simulation of primary break-up of a conical swirled jet



**Bergamo, 20<sup>th</sup> May 2016**  
**Sant'Agostino Conference**  
**Room**

## Workshop goals

This is the tenth edition of the workshop on droplet impact phenomena and spray investigations organised by the University of Bergamo. It represents an important opportunity to share the recent knowledge on droplets and sprays in a variety of research fields and industrial applications.

## Preliminary program

### 19<sup>th</sup> May 2016

20:00 Dinner in the medieval Città Alta at Ristorante Da Mimmo, via B. Colleoni 17, 24129 Bergamo.

### 20<sup>th</sup> May 2016

8:30 Registration

9:00 Welcome speech

#### 9:15 Section I: Experimental techniques for spray investigation

9:15 *Advanced images analysis for the characterization of a GDI spray*, L. Allocca, A. Amoresano, G. Langella and A. Montanaro

9:45 *Micro-CT quantitative cavitation measurements in high-speed Diesel flows*, N. Mitroglou, M. Lorenzi, M. Santini and M. Gavaises

#### 10:15 Coffee break

#### 11:00 Section II: Drop impact phenomena

11:00 *Outcome of drop impact onto a liquid film of different viscosities*, H. Kittel, I. Roisman and C. Tropea

11:30 *The long journey from superhydrophobicity to icephobicity*, C. Antonini

12:00 *Shear thinning effects during droplet dynamic processes (work in progress)*, N. Roth, M. Reitzle and B. Weigand

#### 12:30 Lunch break

#### 14:15 Section III: Drop evaporation modelling

14:15 *Meshless methods for 'gas - evaporating droplet' flow modelling*, O. Rybdylova and S.S. Sazhin

14:45 *Modelling of heating and evaporation of a spheroidal droplet*, V. Zubkov, G.E. Cossali, S. Tonini, C. Crua, M. Heikal and S.S. Sazhin

#### 15:15 Section IV: Spray applications

15:15 *Measurement of droplet sizes in the near-nozzle region of an ECN Spray A injector*, C. Crua, V. Stetsyuk, G. de Sercey and J. Turner

15:45 *Micrometric aerosol removal by high-pressure water spray: preliminary experimental and modeling results*, L. Araneo, S. Barbano, A. Del Corno and F. Parozzi

#### 16:15 Coffee break

#### 17:00 Workshop closure

## Publication

A successive **publication** of the works presented during the workshop will be made as short communication format. Anyone, who has contributed to the workshop with oral or poster presentation and he is interested to make a publication of his work, will be asked to send us a manuscript by **30<sup>th</sup> June 2016**. We will include it in a **CD-ROM with ISBN** which will be distributed to all the participants. A format for the manuscript will be provided successively

## Organisation information

To register to the event please send an e-mail with your data (name, affiliation, address, date of arrival) to Simona Tonini, [simona.tonini@unibg.it](mailto:simona.tonini@unibg.it). The workshop **registration is free**.

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