

RECENT ADVANCES IN BUBBLE COLUMNS

5th November 2019
Paris – France

Bubble columns are frequently used in the chemical, biotechnology and water treatment industries, as well as many others. Despite decades of research, the design and scale-up of bubble column reactors is still a challenging task. What are the challenges and opportunities? What are the latest experimental and numerical techniques and tools that will help design and operation?

The group *'Reactors & Intensification'* of the French society of chemical engineering (SFGP) and the Working Party *'Multiphase Flows'* of the European Federation of Chemical Engineering (EFCE) invite you to participate in a 1-day workshop on the recent scientific developments in the field of bubble columns and bubbly flows involved in chemical reactors. This event will bring together some of the principal experts in the field today and will be the opportunity to discuss the current challenges.

REGISTRATION

On-line registration

<https://www.weezevent.com/recent-advances-in-bubble-columns>

70€ - SFGP members
90€ - non-SFGP members

LOCATION

Conservatoire National des Arts et Métiers (CNAM)

2 rue Conté
(métro Arts et Métiers)
Paris, France

CONTACT

SFGP

'Reactors & Intensification'

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EFCE WP 'Multiphase Fluid Flow'

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EFCE

European Federation of Chemical Engineering
Europäische Föderation für Chemie-Ingenieur-Wesen
Fédération Européenne de Génie Chimique

<http://www.efce.info/>

EFCE Event No. 770

e cnam

<http://www.cnam.fr/>



SOCIÉTÉ FRANÇAISE DE GÉNIE DES PROCÉDÉS

<http://www.sfgp.asso.fr/>

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8:45 – 9:15 **Registration / Welcome**

9:15 – 10:25 **New experimental techniques for characterising bubbly flows**

9:15 **Bubble columns hydrodynamics revisited according to new experimental data**
Alain Cartellier, *University of Grenoble Alpes*

9:50 **Tracking the concentration of reactants behind rising bubbles by means of Time Resolved Scanning Laser Induced Fluorescence (TRS-LIF)**
Michael Schlüter, *Hamburg University of Technology*

10:25 – 10:45 *Coffee break*

10:45 – 14:20 **Advances in modelling of bubbly flows**

10:45 **Recent advancements in the simulation of bubble columns with CFD and PBM**
Daniele Marchisio, *Politecnico of Torino*

11:20 **Agitation induced by bubbles: physical interpretation and modelling**
Frédéric Risso, *Institut de Mécanique des Fluides de Toulouse*

11:55 **Scale-bridging interface-resolving simulation of bubble flow**
Holger Marschall, *Technical University Darmstadt*

12:30 – 13:45 *Lunch*

13:45 **Insights into turbulent bubbly flows from Direct Numerical Simulations**
Guillaume Bois, *CEA Saclay*

14:20 – 16:05 **Industry related flow studies**

14:20 **To be confirmed**
Arne Hoffmann, *BASF SE*

14:55 **Tailoring bubble action for intensified gas-liquid contacting**
Niels Deen, *University of Eindhoven*

15:30 **Computational modelling of pilot & industrial bubble columns – successes & challenges**
David Fletcher, *The University of Sydney*

16:05 – 16:30 **Conclusions**



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