

MIGRATE 2nd International Workshop and Summer School

Bulgarian Academy of Sciences, Sofia, Bulgaria – June 26 – 30, 2017



MIGRATE (www.migrate2015.eu) is a Marie Skłodowska-Curie European Training Network, intended to address some of the current challenges to innovation that faces European industry with regard to heat and mass transfer in gas-based micro-scale processes. This network of 10 participants and 7 associated partners coming from all over the European Community will cover different aspects of enhanced heat transfer and thermal effects in gases: from modelling of heat transfer processes and devices, development and characterization of sensors and measurement systems for heat transfer in gas flows as well as thermally driven micro gas separators, to micro-scale devices for enhanced and efficient heat recovery in environmental, transport, telecommunications and energy generation.

The MIGRATE project of the European Community presents its 2nd International Summer School and its 2nd International Workshop, taking place at the Bulgarian Academy of Sciences, Sofia, Bulgaria, from June 26 to June 30, 2017.

Workshop Scientific Program

The workshop program will cover the following topics:

- Micro Sensors & Sensing Techniques
- Sampling and Analysis Microsystems
- Energy Recovery Microsystems

In each of these fields, new developments will be presented, concerning:

- Modelling, simulation and design tools
- Experimental techniques and measurements
- Materials and manufacturing techniques

Within this 2nd International Workshop, a variety of talks will be selected to present a state-of-the art view to the covered topics as well as new developments and research results. A poster session will be dedicated to round the workshop thematically. The program will include keynote lectures, invited lectures and contributed papers. The number of contributions is strictly limited.

Contributed papers for the workshop will be accepted as oral or poster presentations. Participants who wish to present a paper are requested to submit for peer review, **before May 1st, 2017**, on the MIGRATE Workshop & Summer School website (<https://migrate2017.sciencesconf.org/>), a 2-page extended abstract in PDF format, using the template available on the site.

Accepted extended abstract will be published within the Workshop proceedings.

Summer School Program

During this intensive two-day Summer School, will be presented lectures from fundamental knowledge to advanced level. Talks of highly experienced and skilled specialists from Universities, Research Labs and Industry will provide deep view inside these topics:

- *Particularities of the gas flow simulations in MEMS devices: review of main approaches*
- *Heat and mass transfer within gas flows in the slip flow regime*
- *Lattice Boltzmann Models for Rarefied Gas Flows*
- *Application of the Direct Simulation Monte Carlo (DSMC) method to dense gases modeling*
- *Kinetic theory and modelling in gaseous transport phenomena*
- *Micro heat exchangers*
- *Heat Recovery Microsystems*
- *Pressure sensors for vacuum applications*
- *Rarefied gas experiments - Measurement of accommodation coefficients*
- *Analytical techniques for measuring air pollutants*
- *Molecular Tagging Techniques for gas flows velocimetry and thermometry*
- *Microfabrication of Integrated sensors in MEMS*
- *Industrialization of microsystems*
- *IP Management*

Detailed programs of both the Workshop and Summer School can be found at <https://migrate2017.sciencesconf.org/>

Workshop & Summer School Scientific Committee

Erik Arlemark	ASML
Lucien Baldas	Institut National des Sciences Appliquées de Toulouse
Juergen J. Brandner	Karlsruhe Institute of Technology
Stéphane Colin	Institut National des Sciences Appliquées de Toulouse
Michel Delanaye	MITIS SA
Stéphanette Englaro	In'Air Solutions
Aldo Frezzotti	Politecnico Milano
Arjan J.H. Frijns	Technische Universiteit Eindhoven
Stéphane Le Calvé	ICPEES – University of Strasbourg
Irina Martin-Demina	Aix-Marseille University
Gian Luca Morini	Alma Mater Studiorum – Università di Bologna
David Newport	University of Limerick
Dimitris Valougeorgis	Panepistimio Thessalias – University of Thessaly
Nick Jeffers	Nokia Bell Labs, Ireland
Stefan Stefanov	Institute of Mechanics, Bulgarian Academy of Sciences
Martin Wüest	INFICON
Yonghao Zhang	University of Strathclyde

Workshop & Summer School Organizing Committee

Lucien Baldas	Institut National des Sciences Appliquées de Toulouse
Juergen J. Brandner	Karlsruhe Institute of Technology
Stéphane Colin	Institut National des Sciences Appliquées de Toulouse
Martin Knapp	Karlsruhe Institute of Technology
Stefan Stefanov	Institute of Mechanics, Bulgarian Academy of Sciences

Important dates

May 1st, 2017:	Deadline for submission of extended abstracts
May 20, 2017:	Notification of acceptance
May 30, 2017:	Submission deadline for the final version of extended abstracts
June 26 – 27, 2017:	Summer School
June 29 – 30, 2017:	Workshop

Fees

2-day Summer School

Early bird registration (before June 1 st):	€ 300
Student fees	€ 250
Registration after June 1 st :	€ 350

2-day Workshop

Early bird registration (before June 1 st):	€ 250
Student fees:	€ 200
Registration after June 1 st :	€ 300

Combined registration

(Summer School and Workshop) fees:	€ 450
Student fees:	€ 400
Registration after June 1 st :	€ 500

Fees include the participation costs to the events + lunches and coffee breaks:
<https://migrate2017.sciencesconf.org/>

Information

For more information about the Summer School and Workshop, please contact the event organizers:

Global organization:	Dr. Lucien Baldas (lucien.baldas@insa-toulouse.fr) or Prof. Stéphane Colin (stephane.colin@insa-toulouse.fr)
Local organization:	Prof. Stefan Stefanov (stefanov@imbm.bas.bg)
Network Coordinator:	Prof. Juergen Brandner (juergen.brandner@kit.edu) or Dr. Martin Knapp (martin.knapp@kit.edu)

Updates of this information are to be found at <https://migrate2017.sciencesconf.org/>