

MIGRATE 3rd International Workshop - June 27 – 29, 2018

Bastia, FRANCE

Workshop day 1: June 27, 2018	
13:30 – 14:00	Registration
14:00 – 14:15	Welcome Address Prof. Irina Graur (Aix-Marseille University) – Prof. Juergen J. Brandner (KIT) Dr. Lucien Baldas (University of Toulouse)
14:15 – 15:15	Keynote Lecture 1 <u>Yogesh B. Gianchandani</u> MICROFABRICATED GAS PUMPS FOR MICRO GAS CHROMATOGRAPHY AND OTHER APPLICATIONS Session Chair: D. Valougeorgis
15:15 – 16:00	Coffee break & Discussions around posters
16:00 – 17:25	Session 1 – Interactions Gas/Materials Session Chair: R. Enright
16:00	DSMC SIMULATION OF HALF-SPACE SINGLE GAS IN THE PRESENCE OF AN ADSORBING SURFACE <i>Ricardo Brancher</i>
16:20	A STUDY OF ALTERNATIVE GRANULAR ADSORBENTS FOR BENZENE AND TOLUENE PRECONCENTRATION <i>Irene Lara-Ibeas</i>
16:40	AN EXPERIMENTAL ESTIMATION IN THE RECOVERY FACTOR OF MICROCHANNEL GAS FLOW BY MEASURING THE ADIABATIC WALL TEMPERATURE <i>Takayuki Shigeishi</i>
17:00	PROPOSAL OF A NOVEL KNUDSEN PUMP DESIGN BENEFITTING FROM DRILLING AND 3D PRINTING TECHNIQUES IN LOW THERMAL CONDUCTIVITY MATERIALS <i>Guillermo Lopez Quesada</i>
17:20	THERMAL ANALYSIS OF GAS CONVECTION IN POROUS MEDIA <i>Samy Ramdane</i>

17:25 – End of Day 1

Workshop day 2: June 28, 2018	
08:30 – 09:30	Keynote Lecture 2 Luc G. Fréchette MICRO HEAT ENGINES FOR WASTE HEAT HARVESTING Session chair: I. Graur
09:30 – 10:15	Coffee break & Discussions around posters
10:15 – 12:00	Session 2 – Gas Microflows Session Chair: S. Stefanov
10:15	UNCERTAINTY PROPAGATION IN PRESSURE DRIVEN RAREFIED GAS FLOWS <i>Giorgos Tatsios</i>
10:35	OSCILLATORY PRESSURE DRIVEN FLOW OF HE-XE BETWEEN PARALLEL PLATES IN THE WHOLE RANGE OF THE KNUDSEN NUMBER <i>Alexandros Tsimpoukis</i>
10:55	2D-DSMC SIMULATION OF NON-REACTIVE GAS MIXING INSIDE DIFFERENT TYPES OF MICRO MIXERS <i>Stavros Meskos</i>
11:15	CHARACTERISTIC FLOW DIMENSIONS OF POROUS MEDIA <i>Martin-Viktor Johansson</i>
11:35	EFFECT OF FLOW CHOKING ON EXPERIMENTAL AVERAGE FRICTION FACTOR OF GAS MICROFLOWS <i>Danish Rehman</i>
11:55	DATA REDUCTION OF AVERAGE FRICTION FACTOR OF GASEOUS FLOW IN MICRO-CHANNELS WITH ADIABATIC WALL <i>Chungpyo Hong</i>
12:00 – 14:00	Lunch
14:00 – 15:45	Session 3 – Sensors & Measurement Techniques Session Chair: M. Rojas-Cardenas
14:00	CHARACTERIZATION OF A SAW CHIP AND WIRELESS APPLICATION OF THE PIRANI PRINCIPLE IN VACUUM <i>Sofia Toto</i>
14:20	INCREASING THE SENSITIVITY OF A BTEX ANALYZER BY INTEGRATING A PRECONCENTRATOR - PROOF-OF-CONCEPT <i>Alberto Rodríguez-Cuevas</i>
14:40	HETERODYNE INTERFEROMETRY FOR DETECTION OF TOLUENE USING PDMS AS A SENSING FILM <i>Sulaiman Khan</i>
15:00	MICRO PHOTO IONIZATION DETECTOR FOR VOLATILE ORGANIC COMPOUNDS: STATE OF THE ART AND FUTURE STUDIES <i>Gustavo Coelho Rezende</i>
15:20	DESIGN, OPTIMIZATION AND MANUFACTURING OF A MINIATURIZED FLUORESCENCE SENSING DEVICE <i>Daniel Mariuta</i>
15:40	DEVELOPMENT OF AN AIR-QUALITY-SENSORS MONITORING SYSTEM FOR INTEGRATION INSIDE A DRONE <i>Christina Andrikopoulou</i>
15:45 – 16:30	Coffee break & Discussions around posters

16:30 – 17:30	Session 4 – Two-Phase Flows – Phase Change Session Chair: A. Frezzotti
16:30	A REVIEW OF CALIBRATION GAS GENERATING METHODS FROM LIQUID SOLUTION OF A COMPOUND <i>Florian Noel</i>
16:50	DYNAMIC GEOMETRY OF DROPLETS IMPINGING ON SUPERHEATED SURFACE <i>Vikash Kumar</i>
17:10	THE POSITION OF THE LIQUID AND VAPOR BOUNDARIES AND ITS INFLUENCE ON THE EVAPORATION/CONDENSATION COEFFICIENTS <i>Moritz Wolf</i>

17:30 – End of Day 2

18:15 – Bus for Gala Dinner – Meeting point: in front of the reception desk

Workshop day 3: June 29, 2018	
08:45 – 09:45	Keynote Lecture 3 James A. Fedchak DEVELOPMENT OF A COLD-ATOM VACUUM STANDARD (CAVS) Session chair: G.L. Morini
09:45 – 10:30	Coffee break & Discussions around posters
10:30 – 12:10	Session 5 – Heat Transfer and Temperature Measurement Session chair: D. Newport
10:30	EXTENDING NAVIER-STOKES EQUATIONS FOR EUV LITHOGRAPHY GAS FLOWS <i>Erik Arlemark</i>
10:50	COMPUTATIONAL STUDY OF THE LINEARIZED BOLTZMANN EQUATION FOR THE POISEUILLE, THERMAL CREEP AND COUETTE FLOWS FOR HARD SPHERE MOLECULES <i>Nikos Vasileiadis</i>
11:10	COMPUTATIONAL STUDY AND EXPERIMENTAL VALIDATION OF MICRO HEAT EXCHANGER PERTURBATORS FOR HIGH-TEMPERATURE MICRO-CHP APPLICATIONS <i>Jojomon Joseph</i>
11:30	LIQUID CRYSTAL THERMOGRAPHY IN A NEW MICROFLUIDIC DEVICE <i>Nataša Djordjević</i>
11:50	PROPOSED DESIGN FOR SIMULTANEOUS MEASUREMENT OF WALL AND NEAR-WALL TEMPERATURES IN GAS MICROFLOWS <i>Venkata Yeachana</i>
12:10 – 12:15	Closing Address

12:15 – End of the Workshop