

## SOCIAL EVENTS

Sunday, 19

18h00 Welcome Cocktail

Monday 20

Meet the Editors of IJMF

18h30 - 19h30 Happy Hour

Wednesday 22

19h30 Banquet and Samba Show

## SCHEMATIC PROGRAM

Sunday, May 19, 2019

15h00 - 18h00 Registration

18h00 - 20h30 Welcome Reception - Cocktail

Monday, May 20, 2019

8h30 - 10h00 Registration

8h30 - 9h00 Opening Session

8h55 - 9h35 Room Segovia 1

*E. Longmire - University of Minnesota, USA*  
MOTION OF LARGE PARTICLES IN  
TURBULENT BOUNDARY LAYERS

9h50 - 11h05 Parallel Session I

11h05 - 11h30 Coffee Break

11h30 - 12h45 Parallel Session II

12h45 - 14h00 Lunch

14h00 - 14h30 Room Segovia 1

*G. Ribatsky - University of São Paulo, Brazil*  
FLOW INDUCED VIBRATION, FLOW  
PATTERNS, VOID FRACTION AND  
PRESSURE DROP FOR TWO-PHASE FLOW  
ACROSS TRIANGULAR TUBE BUNDLES

Room Segovia 4

*T. Sanada - Shizuoka University, Japan*  
INTERACTION OF A PAIR OF  
BUBBLES IN QUIESCENT LIQUIDS

14h45 - 16h00 Parallel Session III

16h00 - 16h25 Coffee Break

16h25 - 17h40 Parallel Session IV

17h40 - 18h30 Poster Session

Tuesday, May 21, 2019

8h55 - 9h35 Room Segovia 1

*C. Sun - Tsinghua University, China*  
DYNAMICS OF BUBBLES AND  
PARTICLES IN HIGH-REYNOLDS  
NUMBER TURBULENCE

9h50 - 11h05 Parallel Session V

11h05 - 11h30 Coffee Break

11h30 - 12h45 Parallel Session VI

12h45 - 14h00 Lunch

14h00 - 14h30 Room Segovia 1

*T. Colonius - California Institute of  
Technology, Pasadena, CA USA*  
SIMULATION OF CAVITATION AND  
BUBBLE DYNAMICS WITH APPLICATION  
TO ULTRASOUND THERAPY IN MEDICINE

Room Segovia 4

*T. Tanaka - Osaka University, Japan*  
RECENT DEVELOPMENTS IN DEM-CFD  
MODELING OF DENSE GAS-SOLID FLOWS

14h45 - 16h00 Parallel Session VII

16h00 - 16h25 Coffee Break

16h25 - 17h40 Parallel Session VIII

17h40 - 18h20 Poster Session + Poster Award

18h20 - 20h20 GB meeting





## SCHEMATIC PROGRAM

### Wednesday, May 22, 2019

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8h55 - 9h35	<b>Room Segovia 1</b> <i>S. Balachandar - University of Florida, USA</i> A NOVEL PHYSICS AND DATA-DRIVEN EULER-LAGRANGE APPROACH THAT CAPTURES FULLY-RESOLVED PHYSICS
9h50 - 11h05	<b>Parallel Session IX</b>
11h05 - 11h30	<b>Coffee Break</b>
11h30 - 12h45	<b>Parallel Session X</b>
12h45 - 14h00	<b>Lunch</b>
14h00 - 14h30	<b>Room Segovia 1</b> <i>D. Quéré - École Polytechnique, France</i> SURFING ON A HOT SPOT: VARIATIONS ON A THEME BY LEIDENFROST
	<b>Room Segovia 4</b> <i>K. Mahesh - University of Minnesota, USA</i> A MASSIVELY-PARALLEL, UNSTRUCTURED OVERSET METHOD FOR DNS/LES OF PARTICLE-LADEN TURBULENT FLOWS
14h45 - 16h00	<b>Parallel Session XI</b>
16h00 - 16h25	<b>Coffee Break</b>
16h25 - 17h40	<b>Parallel Session XII</b>
17h50 - 18h30	<b>Senior Award</b>
19h30 - 21h30	<b>Banquet</b>
21h30 - 00h30	<b>After-dinner show</b>

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### Thursday, May 23, 2019

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8h55 - 9h35	<b>Room Segovia 1</b> <i>J. Thome - École Polytechnique Fédérale de Lausanne (EPFL) Lausanne, Switzerland</i> ON PERFECTING THE "HANDSHAKE" BETWEEN NUMERICAL MODELING AND FLOW VISUALISATION IN TWO-PHASE FLOWS
9h50 - 11h05	<b>Parallel Session XIII</b>
11h05 - 11h30	<b>Coffee Break</b>
11h30 - 12h45	<b>Parallel Session XIV</b>
12h45 - 14h00	<b>Lunch</b>
14h00 - 14h30	<b>Room Segovia 1</b> <i>L.F. Azevedo - PUC - RJ, Brazil</i> ENSEMBLE-AVERAGING TECHNIQUE FOR VELOCITY MEASUREMENTS IN GAS-LIQUID INTERMITTENT FLOWS
	<b>Room Segovia 4</b> <i>D. Lucas - Helmholtz-Zentrum Dresden-Rossendorf, Germany</i> STATUS AND PERSPECTIVES OF CFD MODELLING OF GAS-LIQUID FLOWS IN THE MULTI-FLUID FRAMEWORK
14h45 - 16h00	<b>Parallel Session XV</b>
16h00 - 16h25	<b>Coffee Break</b>
16h25 - 17h40	<b>Parallel Session XVI</b>
17h50 - 18h30	<b>Junior Award</b>

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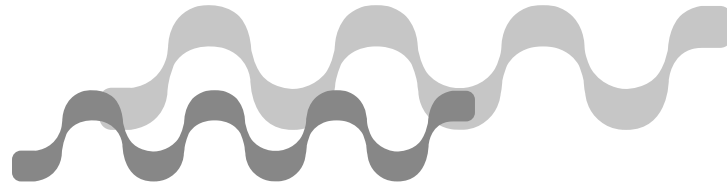
### Friday, May 24, 2019

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8h55 - 9h35	<b>Room Segovia 1</b> <i>G. Tryggvason - Johns Hopkins University, USA</i> EMERGING CHALLENGES IN DIRECT NUMERICAL SIMULATIONS OF MULTIPHASE FLOWS
9h50 - 11h05	<b>Parallel Session XVII</b>
11h05 - 11h30	<b>Coffee Break</b>
11h30 - 12h45	<b>Parallel Session XVIII</b>
12h45 - 14h00	<b>Room Segovia 1</b> CLOSING CEREMONY

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# LECTURES



Monday, May 20, 2019

8h30 - 9h00 **Room Segovia 1**  
Opening Session

8h55 - 9h35 **Room Segovia 1**  
*E. Longmire - University of Minnesota, USA*  
Chairperson: Roberto Zenit

MOTION OF LARGE PARTICLES IN TURBULENT BOUNDARY LAYERS

14h00 - 14h30 **Room Segovia 1**  
*G. Ribatsky - University of São Paulo, Brazil*  
Chairperson: Matteo Bucci

FLOW INDUCED VIBRATION, FLOW PATTERNS, VOID FRACTION AND PRESSURE DROP FOR TWO-PHASE FLOW ACROSS TRIANGULAR TUBE BUNDLES

**Room Segovia 4**  
*T. Sanada - Shizuoka University, Japan*  
Chairperson: Yuichi Murai

INTERACTION OF A PAIR OF BUBBLES IN QUIESCENT LIQUIDS

Tuesday, May 21, 2019

8h55 - 9h35 **Room Segovia 1**  
*C. Sun - Tsinghua University, China*  
Chairperson: Markus Uhlmann

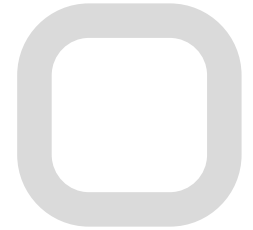
DYNAMICS OF BUBBLES AND PARTICLES IN HIGH-REYNOLDS NUMBER TURBULENCE

14h00 - 14h30 **Room Segovia 1**  
*T. Colonius - California Institute of Technology, Pasadena, CA USA*  
Chairperson: Stephane Zaleski

SIMULATION OF CAVITATION AND BUBBLE DYNAMICS WITH APPLICATION TO ULTRASOUND THERAPY IN MEDICINE

**Room Segovia 4**  
*T. Tanaka - Osaka University, Japan*  
Chairperson: Martin Sommerfeld

RECENT DEVELOPMENTS IN DEM-CFD MODELING OF DENSE GAS-SOLID FLOWS



Wednesday, May 22, 2019

**Room Segovia 1**

*S. Balachandar - University of Florida, USA*

8h55 - 9h35 *Chairperson: Alfredo Soldati*

A NOVEL PHYSICS AND DATA-DRIVEN EULER-LAGRANGE APPROACH THAT CAPTURES FULLY-RESOLVED PHYSICS

**Room Segovia 1**

*D. Quéré - École Polytechnique, France*

*Chairperson: Alfredo Soldati*

SURFING ON A HOT SPOT: VARIATIONS ON A THEME BY LEIDENFROST

14h00 - 14h30

**Room Segovia 4**

*K. Mahesh - University of Minnesota, USA*

*Chairperson: Angela Nieckele*

A MASSIVELY-PARALLEL, UNSTRUCTURED OVERSET METHOD FOR DNS/LES OF PARTICLE-LADEN TURBULENT FLOWS

Thursday, May 23, 2019

**Room Segovia 1**

*J. Thome - École Polytechnique Fédérale de Lausanne (EPFL) Lausanne, Switzerland*

8h55 - 9h35 *Chairperson: Catherine Colin*

ON PERFECTING THE "HANDSHAKE" BETWEEN NUMERICAL MODELING AND FLOW VISUALISATION IN TWO-PHASE FLOWS

**Room Segovia 1**

*L.F. Azevedo - PUC - RJ, Brazil*

*Chairperson: Steven Ceccio*

ENSEMBLE-AVERAGING TECHNIQUE FOR VELOCITY MEASUREMENTS IN GAS-LIQUID INTERMITTENT FLOWS

14h00 - 14h30

**Segovia 4**

*D. Lucas - Helmholtz-Zentrum Dresden-Rossendorf, Germany*

*Chairperson: Dominique Legendre*

STATUS AND PERSPECTIVES OF CFD MODELLING OF GAS-LIQUID FLOWS IN THE MULTI-FLUID FRAMEWORK

Friday, May 24, 2019

**Room Segovia 1**

*G. Tryggvason - Johns Hopkins University, USA*

8h55 - 9h35 *Chairperson: Luis Portela*

EMERGING CHALLENGES IN DIRECT NUMERICAL SIMULATIONS OF MULTIPHASE FLOWS

12h45 - 14h00

**Room Segovia 1**

**Closing Ceremony**

Monday, May 20, 2019

Parallel Session I

Chairperson	Dmitry Eskin	Berend van Wachem
ROOM	SEGOVIA I	SEGOVIA II
10h05 - 10h20	<b>OC.001</b> <b>02. Bubbly Flows</b> INVESTIGATION OF MESO-SCALE DYNAMICS IN BUBBLY FLOWS USING TWO DIFFERENT NUMERICAL FRAMEWORKS <i>Sardina G, Jareteg K, Ström H, Sasic S</i> <b>Gaetano Sardina</b>	<b>OC.005</b> <b>07. Computational Techniques for Multiphase Flows</b> IMPLEMENTATION AND VALIDATION OF A CFD MODEL FOR TWO-PHASE GAS-LIQUID FLOWS WITH DIFFERENT INTERFACE LENGTH SCALES <i>Cerqueira RFL, Evrard F, Denner F, van Wachem BGM, Paladino EE</i> <b>Rafael Franklin Lazaro de Cerqueira</b>
10h20 - 10h35	<b>OC.002</b> <b>02. Bubbly Flows</b> EFFECTS OF INITIAL LIQUID HEIGHT ON GAS HOLDUP IN AN AIR-WATER BUBBLE COLUMN <i>Kobayashi N, Hashida M, Hayashi K, Marashdeh Q, Tomiyama A</i> <b>Nobuya Kobayashi</b>	<b>OC.006</b> <b>07. Computational Techniques for Multiphase Flows</b> PROGRESS IN THE SMOOTHED PARTICLE HYDRODYNAMICS METHOD TO SIMULATE AND POST-PROCESS SPRAY GENERATION <i>Chaussonnet G, Dauch T, Keller M, Okraschevski M, Ates C, Schwitzke C, Koch R, Bauer HJ</i> <b>Geoffroy Chaussonnet</b>
10h35 - 10h50	<b>OC.003</b> <b>02. Bubbly Flows</b> BUBBLE PLUME HYDRODYNAMICS: COMPARISON BETWEEN EULER-EULER SIMULATIONS AND EXPERIMENTAL DATA <i>Laupsien D, Laviéville J, Zamansky R, Cockx A, Liné A</i> <b>David Laupsien</b>	<b>OC.007</b> <b>07. Computational Techniques for Multiphase Flows</b> MOVING MESH METHOD FOR TWO-PHASE FLOWS WITH DYNAMIC BOUNDARIES <i>Anjos G, Mangiavacchi N, Pontes J, Lucena R, Peixoto O</i> <b>Gustavo Anjos</b>
10h50 - 11h05	<b>OC.004</b> <b>02. Bubbly Flows</b> EULER-LAGRANGE SIMULATIONS OF BUBBLY FLOWS WITH LARGE BUBBLES <i>Le Roy De Bonneville F, Zamansky R, Risso F, Boulin A, Haquet JF</i> <b>Florian Le Roy De Bonneville</b>	<b>OC.008</b> <b>07. Computational Techniques for Multiphase Flows</b> NUMERICAL STUDY OF WALL WETTABILITY USING SMOOTHED PROFILE-LATTICE BOLTZMANN METHOD <i>Seta T</i> <b>Takeshi Seta</b>
Chairperson	Luis Fernando Azevedo	Enio Bandarra
ROOM	SEGOVIA III	SEGOVIA IV
10h05 - 10h20	<b>OC.009</b> <b>10. Experimental Methods for Multiphase Flows</b> EVALUATION OF THE TWO-PHASE PRESSURE DROP OF PROPANE ON THE BASIS OF DETAILED EXPERIMENTS CONSIDERING METASTABILITY AND HYSTERESIS <i>Gabrisch X, Repke JU</i> <b>Xenia Gabrisch</b>	<b>OC.013</b> <b>21. Non-Newtonian Multiphase Flows</b> INTERACTION BETWEEN TWO BUBBLES RISING SIDE BY SIDE IN NEWTONIAN AND NON-NEWTONIAN FLUID <i>Jadon V, Sugiyama K, Takagi S</i> <b>Varun Jadon</b>
10h20 - 10h35	<b>OC.010</b> <b>10. Experimental Methods for Multiphase Flows</b> INVERSE HEAT TRANSFER ANALYSIS OF A PULSATING HEAT PIPE FOR SPACE APPLICATIONS TESTED ON BOARD A PARABOLIC FLIGHT <i>Bozzoli F, Zamparini L, Mangini D, Cattani L, Mameli M, Miché N, Filippeschi S, Marengo M</i> <b>Marco Marengo</b>	<b>OC.014</b> <b>21. Non-Newtonian Multiphase Flows</b> INVESTIGATION ON VISCOUS DROPLET GENERATION FOR SELECTIVE COATING PROCESSES <i>Ye Q, Rhein S, Hess T, Niemeier W, Tiedje O</i> <b>Qiaoyan Ye</b>
10h35 - 10h50	<b>OC.011</b> <b>10. Experimental Methods for Multiphase Flows</b> DYNAMICS OF INERTIAL, RIGID NYLON FIBERS IN ISOTROPIC TURBULENCE <i>van Hout R, Kuperman S, Sabban L</i> <b>René van Hout</b>	<b>OC.015</b> <b>21. Non-Newtonian Multiphase Flows</b> PARTICLE MIGRATION IN POISEUILLE FLOW OF A YIELD-STRESS FLUID <i>Chaparian E, Brandt L, Tammisola O</i> <b>Emad Chaparian</b>
10h50 - 11h05	<b>OC.012</b> <b>10. Experimental Methods for Multiphase Flows</b> PULSED SPRAY-WALL INTERACTION IN A CIRCULAR CHANNEL <i>Purkar K, Sahu S</i> <b>Ketaki Purkar</b>	<b>OC.016</b> <b>21. Non-Newtonian Multiphase Flows</b> TWO PHASE FLOW OF GAS-NON-NEWTONIAN FLUIDS IN CLOSED CONDUITS <i>Nayak S, Das G, Ray S</i> <b>Saibalini Nayak</b>

Monday, May 20, 2019

Parallel Session I

Chairperson	Markus Uhlmann	Jose Simões Moreira
ROOM	<b>ARANJUEZ</b>	<b>ORIENTE</b>
09h50 - 10h05	<b>OC.017</b> <b>23. Particle-Laden Flows</b> TRANSITION TO TURBULENCE AND DRAG REDUCTION IN PARTICLE LADEN PIPE FLOW. <i>Agrawal N, Choueiri GH, Hof B</i> <b>Nishchal Agrawal</b>	<b>OC.022</b> <b>03. Boiling, Condensation, Evaporation</b> IMPACT OF DROPLET CONDENSATION ON MIXED CONVECTIVE AIRFLOW <i>Brueckner C, Westhoff A, Wagner C</i> <b>Christian Brueckner</b>
10h05 - 10h20	<b>OC.018</b> <b>23. Particle-Laden Flows</b> POINT-PARTICLE LARGE-EDDY SIMULATION OF SEDIMENT TRANSPORT AND RESUSPENSION <i>Shin HH, Portela LM, Schaerer CE, Mangiacavchi N</i> <b>Hyun Ho Shin</b>	<b>OC.023</b> <b>03. Boiling, Condensation, Evaporation</b> THE DIFFERENCE OF SOLAR BULK HEATING AND SUBSTRATE SURFACE HEATING ON NANOFUID DROPLET EVAPORATION <i>Yan X, Xu JL, Lei L, Liu H</i> <b>Xin Yan</b>
10h20 - 10h35	<b>OC.019</b> <b>23. Particle-Laden Flows</b> THE SOUND OF TWO-PHASE FLOWS: PARTICLE-TURBULENCE EFFECTS ON THE PRESSURE FIELD IN HIGH-SPEED MIXING LAYERS <i>Capecelatro J, Shallcross G, Buchta D</i> <b>Jesse Capecelatro</b>	<b>OC.024</b> <b>03. Boiling, Condensation, Evaporation</b> DEVELOPMENT OF NUMERICAL SIMULATION METHOD FOR TWO-PHASE FLOW IN HEAT EXCHANGER <i>Sakai M, Komuro Y, Kodama A, Enya A, Kondoh Y, Tanimoto K, Hibiki T</i> <b>Masayuki Sakai</b>
10h35 - 10h50	<b>OC.020</b> <b>23. Particle-Laden Flows</b> DYNAMICS AND FRAGMENTATION OF SMALL FLEXIBLE FIBERS IN TURBULENCE <i>Allende S, Henry C, Bec J</i> <b>Sofia Allende</b>	<b>OC.026</b> <b>03. Boiling, Condensation, Evaporation</b> EXPERIMENTAL INVESTIGATION ON THE FLOW BOILING HEAT TRANSFER OF RADIAL EXPANDING CHANNEL HEAT EXCHANGERS <i>Dang C, Song M, Hong S, Cao X, Hihara E</i> <b>Chaobin Dang</b>
10h50 - 11h05	<b>OC.021</b> <b>23. Particle-Laden Flows</b> TRANSIENT SETTLING AND MIXING OF FINITE-SIZE PARTICLES IN TURBULENT SEDIMENTARY FLOWS <i>Krayer MWT, Uhlmann M</i> <b>Michael Krayer</b>	
Chairperson	Fabio Kanizawa	
ROOM	<b>ALHAMBRA II</b>	
09h50 - 10h05	<b>OC.027</b> <b>17. Micro- and Nano-Scale Multiphase Flows</b> PROPAGATION OF LONG BUBBLES IN NON-CIRCULAR CAPILLARIES <i>Magnini M, Viboonyotin P, Matar OK</i> <b>Mirco Magnini</b>	
10h05 - 10h20	<b>OC.028</b> <b>17. Micro- and Nano-Scale Multiphase Flows</b> ION-TUNING THREE-PHASE WETTABILITY <i>Sun CZ, Liu M, Zhu SH, Bai BF</i> <b>Chengzhen Sun</b>	
10h20 - 10h35	<b>OC.029</b> <b>17. Micro- and Nano-Scale Multiphase Flows</b> 3D NANO-PARTICLE VELOCITY FIELD, CONCENTRATION FIELD AND RETENTION/DEPOSITION IN COMPLEX ROCK-BASED 2.5D MICRO-MODELS <i>Upadhyay J, Park DS, Thompson KE, Nikitopoulos DE</i> <b>Jagannath Upadhyay</b>	
10h35 - 10h50	<b>OC.030</b> <b>17. Micro- and Nano-Scale Multiphase Flows</b> DROPLET GENERATION IN FLOW-FOCUSING MICROFLUIDIC CHANNELS WITH EXTERNAL VIBRATION <i>Bao FB, Lin XH, Lin J, Bao LW, Zhang C</i> <b>Fubing Bao</b>	
10h50 - 11h05	<b>OC.031</b> <b>25. Turbulence in Multiphase Flows</b> STATISTICAL ASPECTS OF SPRAY FORMATION <i>Zaleski S, Fuster D, Jiang D, Ling Y, Scardovelli R, Tryggvason G</i> <b>Stephane Zaleski</b>	

Monday, May 20, 2019

Parallel Session II

Chairperson	Frédéric Risso	Daniele Marchisio
<b>ROOM</b>	<b>SEGOVIA I</b>	<b>SEGOVIA II</b>
11h30 - 11h45	<b>OC.032</b> 02. Bubbly Flows EXPERIMENTAL ANALYSIS OF A QUASI-2D BUBBLY MIXING LAYER <i>Muilwijk C, Van den Akker HEA</i> <b>Corné Muilwijk</b>	<b>OC.037</b> 07. Computational Techniques for Multiphase Flows A COMPARATIVE STUDY ON INTERFACE-CAPTURING MODELS AND SCHEMES TO SOLVE BUBBLE DYNAMICS AND CAVITATION <i>Schmidmayer K, Colonius T</i> <b>Kevin Schmidmayer</b>
11h45 - 12h00	<b>OC.034</b> 02. Bubbly Flows MODELING BREAKUP OF A RISING BUBBLE IN A TURBULENT FLOW <i>Eskin D, Vikhansky A</i> <b>Dmitry Eskin</b>	<b>OC.038</b> 07. Computational Techniques for Multiphase Flows NUMERICAL STUDY OF THE CONSTRUCTION OF EULERIAN QUANTITIES FROM PARTICLE QUANTITIES ON CHEBYSHEV GRIDS <i>Komperda J, Li D, Ghiasi Z, Peyvan A, Mashayek F</i> <b>Farzad Mashayek</b>
12h00 - 12h15	<b>OC.035</b> 25. Turbulence in Multiphase Flows ON THE EFFECTS OF SURFACE TENSION AND FILM HEIGHT IN NEAR-INTERFACE TURBULENCE IN A GAS-LIQUID FLOW <i>Azevedo VWF, Evrard F, Denner F, van Wachem B, Paladino EE</i> <b>Victor Wagner Freire de Azevedo</b>	<b>OC.039</b> 07. Computational Techniques for Multiphase Flows UNIFIED ALGORITHM FOR INTERFACIAL FLOWS WITH INCOMPRESSIBLE AND COMPRESSIBLE FLUIDS <i>Denner F, van Wachem B</i> <b>Fabian Denner</b>
12h15 - 12h30	<b>OC.036</b> 02. Bubbly Flows EXPERIMENTAL AND NUMERICAL STUDY ON THE EFFECT OF OUTLET WATER-LEVEL CONDITIONS ON PRESSURE FLUCTUATIONS IN HORIZONTAL AIR-WATER TWO-PHASE FLOWS <i>Sato T, Ota K</i> <b>Takahiro Sato</b>	<b>OC.040</b> 07. Computational Techniques for Multiphase Flows A NEW APPROACH FOR SUBGRID SCALE MODELING OF SURFACE TENSION FOR LARGE EDDY SIMULATION OF LIQUID ATOMIZATION <i>Ketterl S, Klein M</i> <b>Sebastian Ketterl</b>
12h30 - 12h45		<b>OC.041</b> 07. Computational Techniques for Multiphase Flows TOWARDS AN ACOUSTIC SIMULATION OF A WATER DROP IMPACTING IN A WATER POOL <i>Friedrich J, Schäfer M</i> <b>Jonas Friedrich</b>
<b>Chairperson</b>	<b>Amos Ullmann</b>	<b>Tomoaki Watamura</b>
<b>ROOM</b>	<b>SEGOVIA III</b>	<b>SEGOVIA IV</b>
11h30 - 11h45	<b>OC.042</b> 10. Experimental Methods for Multiphase Flows STEREO-PIV MEASUREMENTS IN THE LIQUID PHASE OF AIR-WATER HORIZONTAL INTERMITTENT PIPE FLOW <i>Fernandes L, Mesquita RSN, Martins FJWA, Azevedo LFA</i> <b>Leonardo Fernandes</b>	<b>OC.047</b> 21. Non-Newtonian Multiphase Flows STUDY ON SLUG-TO-CHURN FLOW TRANSITION WITH NEWTONIAN / NON-NEWTONIAN LIQUIDS BASED ON KELVIN-HELMHOLTZ INSTABILITY ANALYSIS <i>Wu N, Wang K, Lin RN</i> <b>Ke Wang</b>
11h45 - 12h00	<b>OC.043</b> 10. Experimental Methods for Multiphase Flows EXPERIMENTAL INVESTIGATION OF DEEP-SEA OIL SPILLS UNDER IN-SITU CONDITIONS: INFLUENCE OF HIGH PRESSURE AND TURBULENT MULTIPHASE FLOW <i>Pesch S, Jaeger P, Malone K, Paris CB, Aman ZM, Krause D, Hoffmann M, Schlüter M</i> <b>Simeon Pesch</b>	<b>OC.048</b> 21. Non-Newtonian Multiphase Flows ULTRASOUND EFFECTS ON FALLING SPHERES IN SHEAR-THINNING FLUID <i>Iwamura M, Watamura T, Sugiyama K</i> <b>Kazuyasu Sugiyama</b>
12h00 - 12h15	<b>OC.044</b> 10. Experimental Methods for Multiphase Flows STUDY OF NON-NEWTONIAN AQUEOUS FOAM-NEWTONIAN HIGH-VISCOSITY OIL TWO-PHASE FLOW PATTERNS IN A HORIZONTAL PIPE <i>Sun J, Jing J, Ullmann A, Brauner N</i> <b>Jie Sun</b>	<b>OC.049</b> 21. Non-Newtonian Multiphase Flows EULERIAN MODEL FOR LAMINAR AND TURBULENT TWO-PHASE FLOWS OF PARTICLES IN NON-NEWTONIAN VISCOPLASTIC FLUIDS <i>Gavrilov A, Shebelev A, Ignatenko Y</i> <b>Andrey Gavrilov</b>
12h15 - 12h30	<b>OC.045</b> 10. Experimental Methods for Multiphase Flows STUDYING THE INITIAL STAGES OF AN IMPACT OF A SOLID SPHERE ONTO LIQUID SURFACE USING BACKGROUND-ORIENTED SCHLIEREN TECHNIQUE. <i>Cherdantsev AV, Gavrilov NV, Ermanyuk EV</i> <b>Andrey Cherdantsev</b>	<b>OC.050</b> 21. Non-Newtonian Multiphase Flows NUMERICAL INVESTIGATION OF PARTICLE MIGRATION IN DILUTE AND SEMI-DILUTE PARTICLE SUSPENSIONS FLOWING BETWEEN ROTATION PARALLEL-PLATES <i>Rosso N, Negrão COR</i> <b>Nezia de Rosso</b>
12h30 - 12h45	<b>OC.046</b> 10. Experimental Methods for Multiphase Flows MULTIPHASE FLOW PATTERNS ANALYSIS AIDED BY FAST RESPONSE IMPEDANCE SENSOR TOMOGRAPHY <i>Santos CM, Capasciutti T, Velasco HF, Tumialan JA, Bonilla A, Rodriguez OMH</i> <b>Hugo Velasco</b>	<b>OC.051</b> 21. Non-Newtonian Multiphase Flows COMPARATIVE ANALYSIS OF AN ELECTRICAL SUBMERSIBLE PUMP'S PERFORMANCE HANDLING VISCOUS NEWTONIAN AND NON-NEWTONIAN FLUIDS THROUGH EXPERIMENTAL AND CFD APPROACHES <i>Valdés JP, Cediel A, Torres F, Becerra D, Rozo D, Asuaje M, Rotkovich N</i> <b>Juan Pablo Valdés</b>

Monday, May 20, 2019

Parallel Session II

Chairperson	Pascal Fede	Elaine Cardoso
ROOM	<b>ARANJUEZ</b>	<b>ORIENTE</b>
11h30 - 11h45	<b>OC.052</b> <b>23. Particle-Laden Flows</b> ANALYZING FINITE-SIZE PARTICLE TRAJECTORIES IN FORCED HOMOGENEOUS-ISOTROPIC TURBULENCE <i>Uhlmann M, Chouippe A</i> <b>Markus Uhlmann</b>	<b>OC.058</b> <b>03. Boiling, Condensation, Evaporation</b> EFFECT OF ATOMIZATION STRATEGY AND AMBIENT TEMPERATURE ON THE PERFORMANCE OF A TWO-PHASE MULTIJET IMPINGEMENT HEAT SINK REFRIGERATION SYSTEM <i>Carneiro MVP, Oliveira PA, Barbosa JR</i> <b>Marcus Vinícius Pedron Carneiro</b>
11h45 - 12h00	<b>OC.053</b> <b>23. Particle-Laden Flows</b> TURBULENCE MODIFICATION BY INERTIAL AEROSOLS IN TWO-WAY COUPLED EULERIAN-EULERIAN AND EULERIAN-LAGRANGIAN SIMULATIONS. <i>Kasbaoui MH</i> <b>M. Housseem Kasbaoui</b>	<b>OC.060</b> <b>03. Boiling, Condensation, Evaporation</b> THEORETICAL MODELING OF A NEW EVAPORATOR FOR AN AMMONIA-WATER ABSORPTION REFRIGERATION USING FLOODED-LAMINAR FILM TUBE <i>Bolaños-Acosta AF, Narváez-Romo B, Simoes-Moreira JR</i> <b>José Simões-Moreira</b>
12h00 - 12h15	<b>OC.054</b> <b>23. Particle-Laden Flows</b> A REACTION FORCE MODEL IN TWO-WAY COUPLING SIMULATION FOR A SMALLER PARTICLE THAN GRID SPACING BASED ON VOLUME AVERAGING <i>Fukada T, Takeuchi S, Kajishima T</i> <b>Toshiaki Fukada</b>	<b>OC.061</b> <b>03. Boiling, Condensation, Evaporation</b> HEAT TRANSFER DURING DROP IMPINGEMENT ONTO A HOT WALL: THE INFLUENCE OF WALL SUPERHEAT, IMPACT VELOCITY, AND DROP DIAMETER <i>Gholijani A, Gambaryan-Roisman T, Stephan P</i> <b>Alireza Gholijani</b>
12h15 - 12h30	<b>OC.055</b> <b>23. Particle-Laden Flows</b> SECONDARY FLOW EFFECT ON PREFERENTIAL CONCENTRATION IN TURBULENT SQUARE DUCT FLOWS <i>Wang Y, Zhao Y, Yao J</i> <b>Yanzhi Wang</b>	
12h30 - 12h45	<b>OC.056</b> <b>23. Particle-Laden Flows</b> EFFECT OF REYNOLDS NUMBER ON CRITICAL STOKES NUMBER PARTICLE COLLISION STATISTICS IN MULTIPHASE TURBULENT CHANNEL FLOW <i>Rai K, Fairweather M, Mortimer L</i> <b>Kiran Rai</b>	
Chairperson	José Pontes	
ROOM	<b>ALHAMBRA II</b>	
11h30 - 11h45	<b>OC.062</b> <b>17. Micro- and Nano-Scale Multiphase Flows</b> STOCHASTIC PARTICLE APPROACH FOR NON-CONTINUUM MULTIPHASE FLOWS: A STUDY ON INVERTED TEMPERATURE GRADIENT <i>Sadr M, Gorji H, Torrilhon M</i> <b>Mohsen Sadr</b>	
11h45 - 12h00	<b>OC.063</b> <b>17. Micro- and Nano-Scale Multiphase Flows</b> EXPERIMENTAL INVESTIGATION OF CONVECTION INSTABILITY AND HEAT TRANSFER CHARACTERISTICS BY FE <sub>3</sub> O <sub>4</sub> -WATER MAGNETIC NANOFUID <i>Kumar A, Subudhi S</i> <b>Sudhakar Subudhi</b>	
12h00 - 12h15	<b>OC.064</b> <b>17. Micro- and Nano-Scale Multiphase Flows</b> DROPLET FLOW BEHAVIOR IN A MICROFLUIDIC JUNCTION <i>Kumari P, Atta A</i> <b>Pooja Kumari</b>	
12h15 - 12h30	<b>OC.065</b> <b>17. Micro- and Nano-Scale Multiphase Flows</b> A NOVEL MULTIPHASE DNS METHOD FOR THE RESOLUTION OF BROWNIAN MOTION IN A WEAKLY RAREFIED GAS USING A CONTINUUM FRAMEWORK <i>Kannan AS, Naserentin V, Mark A, Maggiolo D, Sardina G, Sasic S, Ström H</i> <b>Ananda Subramani Kannan</b>	
12h30 - 12h45	<b>OC.066</b> <b>17. Micro- and Nano-Scale Multiphase Flows</b> SIMULATIONS OF STOKES FLOW IN MICROSTRUCTURES USING ACCELERATED BOUNDARY ELEMENT METHOD <i>Abramova O, Gumerov N, Pityuk Yu, Batyrshina E</i> <b>Olga Abramova</b>	



Monday, May 20, 2019

Parallel Session III

Chairperson	Sebastien Tanguy	Emilio Paladino
<b>ROOM</b>	<b>SEGOVIA I</b>	<b>SEGOVIA II</b>
15h00 - 15h15	<b>OC.067</b> <b>02. Bubbly Flows</b> EFFECT OF COMPRESSIBILITY ON CAVITATING BUBBLY FLOWS <i>Ganesh H, Bhatt A, Deijlen L, Wu J, Ceccio SL, Harish Ganesh</i>	<b>OC.071</b> <b>07. Computational Techniques for Multiphase Flows</b> TWO-STEP SEMI-LAGRANGIAN INTEGRATION FOR ALE/FEM TWO-PHASE FLOWS <i>Oliveira GP, Anjos GR, Pontes JRM, Mangiavacchi N, Gustavo Charles Peixoto de Oliveira</i>
15h15 - 15h30	<b>OC.068</b> <b>02. Bubbly Flows</b> VALIDATION OF A QUADRATURE-BASED MOMENT METHOD FOR POLYDISPERSE GAS-LIQUID FLOWS <i>Heylmun J, Passalacqua A, Fox RO, Jeffrey Heylmun</i>	<b>OC.072</b> <b>07. Computational Techniques for Multiphase Flows</b> COALESCENCE AND TRANSPORT OF BUBBLES AND DROPS <i>Karnakov P, Litvinov S, Koumoutsakos P, Petr Karnakov</i>
15h30 - 15h45	<b>OC.069</b> <b>02. Bubbly Flows</b> CONTROLLED BUBBLE GENERATION BY PRESSURE MODULATION OF THE AIR STREAM IN A CYLINDRICAL CO-FLOW CONFIGURATION <i>Ruiz-Rus J, Sevilla A, Martínez-Bazán C, Bolaños-Jiménez R, Carlos Martínez-Bazan</i>	<b>OC.073</b> <b>07. Computational Techniques for Multiphase Flows</b> PARTICLE-RESIDENCE-TIME IN PRODUCTION AND SEPARATION PROCESSES IN ENCLOSURES <i>Buss L, Sander S, Noriler D, Fritsching U, Lizoel Buss</i>
15h45 - 16h00	<b>OC.070</b> <b>02. Bubbly Flows</b> DEFORMATION AND BREAKUP OF FINITE-SIZE BUBBLES IN TURBULENCE <i>Masuk A, Salibindia A, Ni R, Rui Ni</i>	<b>OC.074</b> <b>13. Granular Media</b> EFFECT OF VIBRATION ON THE RHEOLOGY OF GRANULAR MATERIALS IN THE QUASI-STATIC REGIME <i>Maione R, Ait Ali Yahia L, Ozel A, Gaudel N, De Richter SK, Ocone R, Lyes Ait Ali Yahia</i>
Chairperson	Marco Marengo	Igor de Paula
<b>ROOM</b>	<b>SEGOVIA III</b>	<b>SEGOVIA IV</b>
15h00 - 15h15	<b>OC.075</b> <b>10. Experimental Methods for Multiphase Flows</b> MEASURING INERTIAL PARTICLE TURBULENT CLUSTERING WITH 2D, AND 1D TECHNIQUES: A STUDY OF COMMON PITFALLS <i>Mora DO, Obligado M, Aliseda A, Cartellier A, Daniel Mora</i>	<b>OC.079</b> <b>19. Modelling of Multiphase Flows</b> ADAPTIVE POPULATION BALANCE MODELLING OF POLYDISPERSED BUBBLY FLOW IN OBSTRUCTED PIPE <i>Papoulias D, Tandon M, Dimitrios Papoulias</i>
15h15 - 15h30	<b>OC.076</b> <b>10. Experimental Methods for Multiphase Flows</b> AN EXPERIMENTAL STUDY OF PHASE-SEPARATION EFFECTIVENESS OF A COMBINED IMPACTING TEE JUNCTION <i>Noor S, Soliman HM, Hassan Soliman</i>	<b>OC.080</b> <b>19. Modelling of Multiphase Flows</b> DEVELOPMENT AND USE OF A TWO-PHASE CFD SOLVER FOR METAMODELING OF A HYDRAULIC RESERVOIR <i>Mostafavi R, Schmitz K, Rahelehshadat Mostafavi</i>
15h30 - 15h45	<b>OC.077</b> <b>10. Experimental Methods for Multiphase Flows</b> EXPERIMENTAL STUDY OF PHASE FRACTION DISTRIBUTION IN A STRATIFIED GAS-LIQUID PIPE FLOW USING GAMMA-RAY DENSITOMETRY <i>Chagas DG, Bicudo TD, Nascimento F, Rodriguez OMH, Daniel Chagas</i>	<b>OC.081</b> <b>19. Modelling of Multiphase Flows</b> LARGE SCALE INTERFACE CURVATURE CALCULATION USING INTERFACE DETECTION AND GEOMETRIC RECONSTRUCTION AND ITS APPLICATION FOR SURFACE TENSION MODELING <i>Gada VH, Tandon M, Vinesh Gada</i>
15h45 - 16h00	<b>OC.078</b> <b>10. Experimental Methods for Multiphase Flows</b> EXPERIMENTAL STUDY ON CHARACTERISTICS OF CROSS-BOUNDARY TRANSIENT GAS/LIQUID FLOW IN PIPELINE-RISER SYSTEM <i>Wu Q, Guo L, Yang C, Zhang X, Zou S, Yao T, Quanhong Wu</i>	<b>OC.082</b> <b>19. Modelling of Multiphase Flows</b> NUMERICAL SIMULATION OF BOILING FLOWS USING LOCAL FRONT RECONSTRUCTION METHOD <i>Rajkotwala AH, Peters EAJF, Baltussen MW, van der Geld CWM, Keurten JAM, Kuipers H, Adnan Rajkotwala</i>

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Parallel Session III

Chairperson	Jochen Fröhlich	Catherine Colin
ROOM	<b>ARANJUEZ</b>	<b>ORIENTE</b>
14h45 - 15h00	<b>OC.083</b> 23. Particle-Laden Flows SETTLING OF TRACER SPHEROIDAL PARTICLES IN VERTICAL TURBULENT CHANNEL FLOWS <i>Qiu J, Zhao L, Marchioli C, Andersson H</i> <b>Lihao Zhao</b>	<b>OC.087</b> 17. Micro- and Nano-Scale Multiphase Flows PHOTO-THERMAL HEATING OF NANOFLUIDS <i>Ulset ET, Kuzmenkov DM, Struchalin PG,</i> <i>Kosinski P, Kutsenko KV, Balakin BV</i> <b>Boris Balakin</b>
15h00 - 15h15	<b>OC.084</b> 23. Particle-Laden Flows FIBRE COLLECTION RATE ON SCREENS WITH APPLICATION TO NUCLEAR POWER PLANTS DURING LOSS OF COOLANT ACCIDENTS <i>Redlinger-Pohn JD, Liverts M, Lundell F</i> <b>Jakob Redlinger-Pohn</b>	<b>OC.088</b> 03. Boiling, Condensation, Evaporation MODELLING OF SATURATED, SUBCOOLED AND POST-DRYOUT FLOW BOILING WITH THE ENERGY DISSIPATION BASED SEMI-EMPIRICAL MODEL <i>Mikielewicz D, Mikielewicz J</i> <b>Dariusz Mikielewicz</b>
15h15 - 15h30	<b>OC.086</b> 23. Particle-Laden Flows ENHANCEMENT OF PARTICLE SETTLING SPEEDS IN TURBULENCE DUE TO MULTI-SCALE MECHANISMS <i>Tom J, Bragg AD</i> <b>Josin Tom</b>	<b>OC.089</b> 03. Boiling, Condensation, Evaporation THREE-DIMENSIONAL NUMERICAL SIMULATION ON POOL BOILING HEAT TRANSFER BY LATTICE BOLTZMANN METHOD: BOILING CURVES AND THE EFFECT OF CONTACT ANGLES <i>Feng Y, Li HX, Guo KK, Lei XL, Zhao JF</i> <b>Yuan Feng</b>
15h30 - 15h45		<b>OC.090</b> 03. Boiling, Condensation, Evaporation A SEMI-EMPIRICAL MODEL FOR FLOW BOILING HEAT TRANSFER WITH ACCOUNT OF THE REDUCED PRESSURE EFFECT <i>Jakubowska B, Gluch S, Wajs J, Mikielewicz D</i> <b>Jan Wajs</b>
15h45 - 16h00		<b>OC.091</b> 03. Boiling, Condensation, Evaporation FLOW BOILING HEAT TRANSFER AND PRESSURE DROP OF R245FA IN HORIZONTAL 21MM I.D. TUBE <i>Kaya A, Lazova M, De Paepe M</i> <b>Alihan Kaya</b>
Chairperson	Enio Bandarra	
ROOM	<b>ALHAMBRA II</b>	
14h45 - 15h00	<b>OC.092</b> 17. Micro- and Nano-Scale Multiphase Flows PORE TRAPPING MECHANISMS IN TWO-PHASE FLOWS THROUGH FUEL CELLS POROUS MEDIA <i>Maggiolo D, Picano F, Toschi F, Sasic S, Ström H</i> <b>Dario Maggiolo</b>	
15h00 - 15h15	<b>OC.093</b> 17. Micro- and Nano-Scale Multiphase Flows EFFECTS OF SURFACTANT ON BUBBLE BREAKUP AT T-JUNCTION AND CHARACTERISTICS OF TAYLOR FLOW IN MINI AND MICRO CHANNELS <i>Hayashi K, Suzuki D, Kurimoto R, Hosokawa S, Tomiyama A</i> <b>Kosuke Hayashi</b>	
15h15 - 15h30	<b>OC.094</b> 17. Micro- and Nano-Scale Multiphase Flows PRODUCTION OF PDMS MICROPARTICLES IN MICROFLUIDIC DEVICES <i>Carneiro J, Campos J, Miranda JM</i> <b>João Miranda</b>	
15h30 - 15h45	<b>OC.095</b> 17. Micro- and Nano-Scale Multiphase Flows EXPERIMENTAL ANALYSIS OF CONCENTRATION FIELDS AROUND A FREE RISING OXYGEN MICROBUBBLE USING LASER-INDUCED-FLUORESCENCE <i>Matthes S, Kastens S, Thomas B, Ohde D, Bubenheim</i> <i>P, Liese A, Noguchi Y, Terasaka K, Schlüter M</i> <b>Simon Matthes</b>	
15h45 - 16h00	<b>OC.096</b> 17. Micro- and Nano-Scale Multiphase Flows OIL-WATER INTERFACIAL BEHAVIOR WITH NANOPARTICLES AND SURFACTANTS <i>Papavassiliou DV, Vu TV</i> <b>Dimitrios Papavassiliou</b>	

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Parallel Session IV

Chairperson	Jader Barbosa	Tim Colonius
<b>ROOM</b>	<b>SEGOVIA I</b>	<b>SEGOVIA II</b>
16h25 - 16h40	<b>OC.097</b> 02. Bubbly Flows BUBBLY FLOW IN AN UPWARD 90-DEGREE BENT SQUARE PIPE Choi H, Park H Hongseok Choi	<b>OC.102</b> 07. Computational Techniques for Multiphase Flows A DIRECT-FORCING IMMERSED BOUNDARY METHOD FOR PARTICULATE FLOWS IN COMPLEX DOMAINS Evrard F, van Wachem B Fabien Evrard
16h40 - 16h55	<b>OC.098</b> 02. Bubbly Flows EXPERIMENTAL EVALUATION OF INTERCHANNEL MULTI-PHASE MIXING THROUGH A NARROW GAP Gose JW, Mäkiharju S, Buchanan J, Mychkovsky A, Ceccio L James Gose	<b>OC.103</b> 07. Computational Techniques for Multiphase Flows A LOCALLY REDISTRIBUTED LEVEL-SET METHOD FOR THE PREDICTION OF BREAKUP AND COALESCENCE OF BUBBLES Chang J, Kim K, Choi H Jaehee Chang
16h55 - 17h10	<b>OC.099</b> 02. Bubbly Flows ON THE EFFECT OF BUOYANCY ON LATERAL MIGRATION OF BUBBLES IN TURBULENT FLOWS: INSIGHTS FROM DIRECT NUMERICAL SIMULATIONS Bois G, du Cluzeau A, Toutant A Guillaume Bois	<b>OC.104</b> 07. Computational Techniques for Multiphase Flows ON THE REALIZABILITY AND BOUNDEDNESS OF THE MOMENTS IN A BUBBLY GAS-LIQUID PIPE FLOW Shiea M, Buffo A, Vanni M, Marchisio D Mohsen Shiea
17h10 - 17h25	<b>OC.100</b> 02. Bubbly Flows EXPERIMENTAL ANALYSIS OF THE COALESCENCE WITHIN A SWARM OF BUBBLES RISING IN A TWO-DIMENSIONAL LIQUID CELL Ruiz-Rus J, Roig V, Ern P, Bolaños-Jiménez R, Martínez-Bazán C Javier Ruiz-Rus	<b>OC.105</b> 07. Computational Techniques for Multiphase Flows CFD SIMULATIONS OF MULTIPHASE SYSTEMS UNDER THE PRESENCE OF FOAM Tronci G, Buffo A, Cisternino M, Marchisio DL, Telib H Giovanni Tronci
17h25 - 17h40	<b>OC.101</b> 02. Bubbly Flows DEVELOPMENT OF VOID WAVE IN THE TURBULENT BOUNDARY LAYER BENEATH A FLAT-BOTTOM SHIP Park HJ, Tasaka Y, Murai Y Hyun Jin Park	<b>OC.106</b> 07. Computational Techniques for Multiphase Flows EFFECTS OF SURFACTANT ON INTERFACIAL TENSION AND DROPLET BREAK-UP IN A MULTICOMPONENT PSEUDOPOTENTIAL LBM Pourtousi M, Sajdari A, Shardt O, Van den Akker HEA Mohammad Pourtousi
<b>Chairperson</b>	<b>Hassan Soliman</b>	<b>Rigoberto Morales</b>
<b>ROOM</b>	<b>SEGOVIA III</b>	<b>SEGOVIA IV</b>
16h25 - 16h40	<b>OC.107</b> 10. Experimental Methods for Multiphase Flows ON THE VELOCITY AND SHAPE OF SLUG BUBBLES IN VISCOUS LIQUIDS IN NEAR HORIZONTAL FLOW. Boucher A, Belt R, Le Men C, Moreau J, Liné A Alexandre Boucher	<b>OC.112</b> 19. Modelling of Multiphase Flows A LBM MODEL WITH INTERPOLATED BOUNDARY FOR WETTING PROCESS IN POROUS MEDIUM Li X, Gao DY, Hou BL, Wang XD Xue Li
16h40 - 16h55	<b>OC.108</b> 10. Experimental Methods for Multiphase Flows TIME-FREQUENCY ANALYSIS OF A THERMALLY INDUCED PULSATING SLUG FLOW Perna R, Pietrasanta L, Mameli M, Marengo M, Filippeschi S Sauro Filippeschi	<b>OC.113</b> 19. Modelling of Multiphase Flows NUMERICAL MODEL SENSITIVITY ANALYSIS OF CRITICAL HEAT FLUX FOR THE EXTERNAL COOLING CHANNEL OF LOWER HEAD Li D, Peng CH, Li SW, Guo Y Yun Guo
16h55 - 17h10	<b>OC.109</b> 10. Experimental Methods for Multiphase Flows COMPARATIVE STUDY ON OPTICAL MEASUREMENT TECHNIQUES FOR FILM THICKNESS MEASUREMENTS: APPLICATION TO UNSTEADY RIVULET FLOWS Hagemeier T, Thévenin D Thomas Hagemeier	<b>OC.114</b> 19. Modelling of Multiphase Flows THE MODELLING OF SPRAY COOLING WITH A DIFFUSE INTERFACE MODEL Gelissen EJ, van der Geld CWM, Kuerten JGM Erwin Gelissen
17h10 - 17h25	<b>OC.110</b> 10. Experimental Methods for Multiphase Flows EXPERIMENTAL STUDY OF AIR ENTRAINMENT BY LARGE SCALE PLUNGING JETS Guyot G, Cartellier A, Matas JP Gregory Guyot	<b>OC.115</b> 19. Modelling of Multiphase Flows CFD-PBM MODELLING OF BUBBLY FLOW IN BUBBLE COLUMN REACTORS COUPLED WITH BUBBLE-INDUCED TURBULENCE : II. A MODIFIED BUBBLE BREAKAGE MODEL Shi W, Yang X, Sommerfeld M, Yang J, Cai X, Li G Xiaogang Yang
17h25 - 17h40	<b>OC.111</b> 10. Experimental Methods for Multiphase Flows PRESSURE-BASED FLOW REGIME IDENTIFICATION IN PIPELINE S-SHAPED RISER SYSTEM Liu W, Xu Q, Guo L Weizhi Liu	<b>OC.116</b> 19. Modelling of Multiphase Flows PARTICLE-FLUID-PARTICLE STRESS IN DISPERSE MULTIPHASE FLOWS Zhang DZ, Akiki G, Rauenzahn R, Francois M Duan Zhang

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Parallel Session IV

Chairperson	Toshiaki Fukada	Boris Balakin
ROOM	<b>ARANJUEZ</b>	<b>ORIENTE</b>
16h25 - 16h40	<b>OC.117</b> <b>23. Particle-Laden Flows</b> VORONOÏ ANALYSIS OF PARTICLE-TURBULENCE INTERACTION IN SAND-LADEN TURBULENT BOUNDARY LAYER <i>Zhu HY, Pan C, Wang JJ, Liang YR, Ji XC</i> <b>Hang-Yu Zhu</b>	<b>OC.122</b> <b>03. Boiling, Condensation, Evaporation</b> EXPERIMENTAL STUDY ON CONVECTION-CONDENSATION HEAT TRANSFER CHARACTERISTICS OF WET AIR WITH ASH PARTICLES ACROSS FINNED TUBE BUNDLES <i>Wang JS, Qin YZ, Duan YF, Guo YJ, Yan JJ</i> <b>Jinshi Wang</b>
16h40 - 16h55	<b>OC.118</b> <b>23. Particle-Laden Flows</b> INTERFACE-RESOLVED NUMERICAL SIMULATIONS OF PARTICLE-LADEN TURBULENT FLOWS IN A VERTICAL CHANNEL FILLED WITH BINGHAM FLUIDS <i>Zhu C, Yu Z, Shao X</i> <b>Zhaosheng Yu</b>	<b>OC.123</b> <b>03. Boiling, Condensation, Evaporation</b> COMPARISON OF HEAT TRANSFER CHARACTERISTICS OF R407C IN PLAIN AND MICRO-FIN TUBES <i>Basavaraja DM, Das Ak, Kumar R</i> <b>Arup Kumar Das</b>
16h55 - 17h10	<b>OC.119</b> <b>23. Particle-Laden Flows</b> LARGE-EDDY SIMULATION OF PARTICLE DISPERSION IN HORIZONTAL CIRCULAR TUBES UNDER ELECTROSTATIC EFFECT <i>Li J, Zhao Y, Yao J</i> <b>Jinzhui Li</b>	<b>OC.124</b> <b>03. Boiling, Condensation, Evaporation</b> PREDICTION OF MICROGRAVITY FLOW BOILING HEAT TRANSFER IN THE BUBBLY FLOW REGIME <i>Hammer CF, Lebon M, Kim J</i> <b>Caleb Hammer</b>
17h10 - 17h25	<b>OC.120</b> <b>23. Particle-Laden Flows</b> MODELLING AND SIMULATION OF THE PARTICLE FOCUSING BEHAVIOR IN MICROFLUIDIC CHANNELS – EFFECTS OF CURVATURE AND ASPECT RATIO <i>Hafemann T, Rodriguez J, Arango F, Ruiz-Salguero O, Fröhlich J</i> <b>Thomas Eduardt Hafemann</b>	<b>OC.125</b> <b>03. Boiling, Condensation, Evaporation</b> TWO PHASE FLOW AND HEAT TRANSFER IN A CHANNEL OF PLATE HEAT EXCHANGER <i>Miyara A, Kariya K, Wakasugi S</i> <b>Akio Miyara</b>
17h25 - 17h40	<b>OC.121</b> <b>23. Particle-Laden Flows</b> NUMERICAL SIMULATIONS OF SHORT- AND LONG-RANGE INTERACTION FORCES IN TURBULENT PARTICLE-LADEN GAS FLOWS <i>Boutsikakis A, Fede P, Simonin O</i> <b>Athanasios Boutsikakis</b>	<b>OC.126</b> <b>03. Boiling, Condensation, Evaporation</b> DYNAMICS AND HEAT TRANSFER IN FLOW BOILING IN TUBE IN NORMAL AND MICROGRAVITY CONDITIONS <i>Trejo Peimbert E, Achour N, Colin C, Sebilliau J, Hammer C, Kim J</i> <b>Catherine Colin</b>
Chairperson	Dario Maggiolo	
ROOM	<b>ALHAMBRA II</b>	
16h25 - 16h40	<b>OC.127</b> <b>17. Micro- and Nano-Scale Multiphase Flows</b> CLSVOF STUDY ON DROPLET FORMATION IN A SQUARE MICROCHANNEL <i>Sontti S, Ghosh A, Atta A</i> <b>Arnab Atta</b>	
16h40 - 16h55	<b>OC.128</b> <b>17. Micro- and Nano-Scale Multiphase Flows</b> PORE-RESOLVED SIMULATIONS OF TWO-PHASE FLOW THROUGH POROUS MEDIA <i>Ambekar AS, Phirani J, Buwa VV</i> <b>Aniket Ambekar</b>	
16h55 - 17h10	<b>OC.129</b> <b>17. Micro- and Nano-Scale Multiphase Flows</b> HEAT TRANSFER EVALUATION OF SILVER WATER/EG NANOFLUIDS IN MICROCHANNEL HEATSINKS FOR HIGH CONCENTRATION PHOTOVOLTAIC APPLICATIONS <i>Bandarra Filho E, Chenche LEP, Guilherme I, Cárdenas A, Cotta C</i> <b>Enio Bandarra Filho</b>	
17h10 - 17h25	<b>OC.130</b> <b>17. Micro- and Nano-Scale Multiphase Flows</b> EFFECT OF NANOPARTICLE SIZE ON THE ENHANCEMENT OF THERMOPHYSICAL PROPERTIES AND THERMOHYDRAULIC PERFORMANCE OF SILVER NANOFLUIDS <i>Cárdenas AO, Peñaranda LE, Florez DA, Bandarra Filho E</i> <b>Enio Bandarra Filho</b>	
17h25 - 17h40	<b>OC.131</b> <b>17. Micro- and Nano-Scale Multiphase Flows</b> ENERGY ANALYSES OF COALESCENCE-INDUCED SELF-PROPELLED UNEQUAL-SIZED DROPLET JUMPING <i>Wang Y, Ming P, Zhao H</i> <b>Yuhang Wang</b>	

Tuesday, May 21, 2019

Parallel Session V

Chairperson	Céline Gabillet	Gianluca Boccardo
<b>ROOM</b>	<b>SEGOVIA I</b>	<b>SEGOVIA II</b>
10h05 - 10h20	<b>OC.132</b> <b>02. Bubbly Flows</b> MODELLING OF BUBBLE DYNAMICS DURING FLASH EVAPORATION USING A CLASS METHOD OF POPULATION BALANCE <i>Liao Y, Lucas D</i> <b>Yixiang Liao</b>	<b>OC.136</b> <b>07. Computational Techniques for Multiphase Flows</b> EFFICIENT PROGRAM DATA STRUCTURE FOR TWO-PHASE-FLOW IN EXTREMELY HETEROGENEOUS MEDIA <i>Reiche T</i> <b>Tatiana Reiche</b>
10h20 - 10h35	<b>OC.133</b> <b>02. Bubbly Flows</b> BUBBLE TEXTURE IN A GLASS OF GUINNESS BEER <i>Watanura T, Sugiyama K</i> <b>Tomoaki Watanura</b>	<b>OC.137</b> <b>07. Computational Techniques for Multiphase Flows</b> ANALYSIS AND MODELLING OF LIQUID HOLDUP IN LOW LIQUID LOADING TWO-PHASE FLOW USING CFD AND EXPERIMENTAL DATA <i>Ballesteros MA, Ratkovich N, Pereyra E</i> <b>Nicolas Ratkovich</b>
10h35 - 10h50	<b>OC.134</b> <b>02. Bubbly Flows</b> EXPERIMENTAL INVESTIGATION OF AIR ENTRAINMENT BY A VERTICAL JET PLUNGING INTO A LIQUID POOL <i>Albrecht G, Heiler W, Büttner F, Gabriel S</i> <b>Giancarlo Albrecht</b>	<b>OC.138</b> <b>07. Computational Techniques for Multiphase Flows</b> SIMULATION OF IMMISCIBLE TWO-PHASE FLOWS BASED ON A KINETIC DIFFUSE INTERFACE APPROACH <i>Chen T</i> <b>Tao Chen</b>
10h50 - 11h05	<b>OC.135</b> <b>02. Bubbly Flows</b> ENHANCED CHARACTERISTICS OF BUBBLE SWARM USING AN EJECTOR WITH WATER INJECTION <i>Seo H, Kim KC</i> <b>Kyung Chun Kim</b>	<b>OC.139</b> <b>07. Computational Techniques for Multiphase Flows</b> AN ARBITRARILY HIGH-ORDER, CONSERVATIVE, CARTESIAN-GRID INTERFACE TRACKING SCHEME FOR MULTIPHASE FLOW SIMULATIONS <i>Campbell BK</i> <b>Bryce Campbell</b>
<b>Chairperson</b>	<b>Marco José da Silva</b>	<b>Cem Sarica</b>
<b>ROOM</b>	<b>SEGOVIA III</b>	<b>SEGOVIA IV</b>
10h05 - 10h20	<b>OC.140</b> <b>10. Experimental Methods for Multiphase Flows</b> EXPERIMENTAL METHODS OF FLOW PATTERN MEASUREMENT AND ANALYSIS: A REVIEW <i>Dias IC, Copetti JB, Oliveira JD</i> <b>Isadora Cardozo Dias</b>	<b>OC.144</b> <b>19. Modelling of Multiphase Flows</b> GROWTH OF SOLITARY SLUGS IN LONG FLOWLINES <i>Belt R, Lawrence C, Eiding H, Staff G</i> <b>Roel Belt</b>
10h20 - 10h35	<b>OC.141</b> <b>10. Experimental Methods for Multiphase Flows</b> A HIGH-SPEED X-RAY TOMOGRAPHY SYSTEM FOR OPTICALLY OPAQUE MULTIPHASE FLOWS <i>Xu KG, Ganesh H, Mäkiharju SA, Ceccio SL</i> <b>Steven Ceccio</b>	<b>OC.145</b> <b>19. Modelling of Multiphase Flows</b> SIMULATION OF OIL COLLECTION IN WAVY SEA <i>Son DT, Johansen ST, Loevfall BT, Meland R, Leinan PR</i> <b>Stein Tore Johansen</b>
10h35 - 10h50	<b>OC.142</b> <b>10. Experimental Methods for Multiphase Flows</b> TEMPERATURE AND VELOCITY FIELD MEASUREMENTS OF POOL BOILING USING TWO-COLOUR LASER-INDUCED FLUORESCENCE, INFRARED THERMOMETRY AND PARTICLE IMAGE VELOCIMETRY <i>Voulgaropoulos V, Aguiar GM, Matar OK, Bucci M, Markides CN</i> <b>Christos Markides</b>	<b>OC.146</b> <b>19. Modelling of Multiphase Flows</b> LARGE-EDDY SIMULATION OF THE GAS-LIQUID FLOW IN A CYLINDRICAL BUBBLE COLUMN REACTOR <i>Long S, Yang X, Yang J, Li G, Xue C</i> <b>Shanshan Long</b>
10h50 - 11h05		<b>OC.147</b> <b>19. Modelling of Multiphase Flows</b> PRESSURE TRANSIENT BEHAVIOR UNDER MULTIPHASE FLOW CONDITIONS IN DUAL-POROSITY AND DUAL-PERMEABILITY NATURALLY FRACTURED RESERVOIRS <i>Li M, Li Q, Bi G, Lin J</i> <b>Mengmeng Li</b>

Tuesday, May 21, 2019

Parallel Session V

Chairperson	Ellen Longmire	Gherhardt Ribatski
ROOM	<b>ARANJUEZ</b>	<b>ORIENTE</b>
09h50 - 10h05	<b>OC.148</b> <b>23. Particle-Laden Flows</b> DSMC OF FULLY DEVELOPED TURBULENT PARTICLE-LADEN CHANNEL FLOW WITH NON-ELASTIC FRICTIONAL WALL BOUNCING <i>Fede P, Simonin O</i> <b>Pascal Fede</b>	<b>OC.153</b> <b>03. Boiling, Condensation, Evaporation</b> EXPERIMENTAL AND NUMERICAL STUDIES ON SINGLE BUBBLE POOL BOILING IN MICROGRAVITY <i>Du WF, Wu K, Liu P, Zhao JF, Li HX, Lei ZS</i> <b>Huixiong Li</b>
10h05 - 10h20	<b>OC.149</b> <b>23. Particle-Laden Flows</b> ON-LINE MEASUREMENT OF SOLID VOLUME FRACTION FOR A PIPE SLURRY FLOW THROUGH IMAGE PROCESSING TECHNIQUE <i>Scelzo MT, Peveroni L, Gouriet JB, Buchlin J-M</i> <b>Maria Teresa Scelzo</b>	<b>OC.154</b> <b>03. Boiling, Condensation, Evaporation</b> OBSERVATION OF CONDENSATION DYNAMICS ON MICRO-STRUCTURES BY ENVIRONMENTAL SEM (EFFECT OF SHAPE, SIZE AND WETTABILITY) <i>Ikeda R, Ogata H, Omura M, Yamada A, Takahashi K, Orejon D, Takata Y</i> <b>Yasuyuki Takata</b>
10h20 - 10h35	<b>OC.150</b> <b>23. Particle-Laden Flows</b> DIRECT NUMERICAL SIMULATION OF MAGNETO-ARCHIMEDES LEVITATION OF NONMAGNETIC PARTICLES <i>Tajfirooz S, Kuerten JGM, Dellaert RA, Zeegers JCH</i> <b>Sina Tajfirooz</b>	<b>OC.155</b> <b>03. Boiling, Condensation, Evaporation</b> TRANSIENT NUCLEATE AND FILM BOILING REGIMES <i>Scheiff V, Ruyer P, Colin C, Sebilliau J</i> <b>Julien Sebilliau</b>
10h35 - 10h50	<b>OC.151</b> <b>23. Particle-Laden Flows</b> MONO- AND BI-SOLID PARTICLE-RESOLVED SIMULATION OF PERIODIC COUETTE FLOWS AND STATISTICAL MODELING OF PARTICLE-PARTICLE AND FLUID-PARTICLE INTERACTIONS <i>Scorsim O, Fede P, Simonin O</i> <b>Olivier Simonin</b>	<b>OC.156</b> <b>03. Boiling, Condensation, Evaporation</b> ON THE DRAG FORCE AND THE SELF-PROPULSION OF AN EVAPORATING DROPLET <i>Alis R, Tanguy S, Kenhthswaran K, Rouzaud O, Estivalèzes JL</i> <b>Sebastien Tanguy</b>
10h50 - 11h05		<b>OC.157</b> <b>03. Boiling, Condensation, Evaporation</b> POOL BOILING HEAT TRANSFER OF HFE-7100 ON METAL FOAMS <i>Manetti LL, Soares PH, Cardoso EM</i> <b>Leonardo Lachi Manetti</b>
Chairperson	Olga Abramova	
ROOM	<b>ALHAMBRA II</b>	
09h50 - 10h05	<b>OC.158</b> <b>17. Micro- and Nano-Scale Multiphase Flows</b> PRESSURE DROP FOR GAS AND POLYMER AQUEOUS SOLUTION TWO-PHASE FLOWS IN MICROCHANNEL <i>Kawahara A, Yonemoto Y, Arakaki Y</i> <b>Akimaro Kawahara</b>	
10h05 - 10h20	<b>OC.159</b> <b>17. Micro- and Nano-Scale Multiphase Flows</b> PRESSURE DROP OF GAS-LIQUID TAYLOR FLOW IN SQUARE MICROCHANNELS <i>Kurimoto R, Tsubouchi H, Minagawa H, Yasuda T</i> <b>Ryo Kurimoto</b>	
10h20 - 10h35	<b>OC.160</b> <b>17. Micro- and Nano-Scale Multiphase Flows</b> MULTILAMELLAR DROPLETS IN FLOW, FROM MOLECULAR STRUCTURE TO MICROSCOPIC FLOW BEHAVIOUR <i>Khodaparast S, Sharratt W, Wang H, Cabral JT</i> <b>Sepideh Khodaparast</b>	
10h35 - 10h50	<b>OC.161</b> <b>17. Micro- and Nano-Scale Multiphase Flows</b> MULTISCALE MODELING OF GRAPHENE NANOBUBBLES: ATOMISTIC AND CONTINUUM APPROACHES <i>Akhatov I, Zhilyaev P, Iakovlev E</i> <b>Iskander Akhatov</b>	
10h50 - 11h05	<b>OC.162</b> <b>17. Micro- and Nano-Scale Multiphase Flows</b> EXPERIMENTAL INVESTIGATION OF SLUG TWO-PHASE FLOW DISTRIBUTION IN PARALLEL MICRO-CHANNELS <i>Wang S, Liu Y</i> <b>Shuangfeng Wang</b>	

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Parallel Session VI

Chairperson	Atila Freire	Nicolas Ratkovich
<b>ROOM</b>	<b>SEGOVIA I</b>	<b>SEGOVIA II</b>
11h30 - 11h45	<b>OC.163</b> <b>02. Bubbly Flows</b> SIMULATION OF POLY-DISPERSED BUBBLY FLOW USING THE METHOD OF MOMENTS AND LOG-NORMAL CLOSURE <i>Frederix E, Cox T, Kuerten H, Komen E</i> <b>Edo Frederix</b>	<b>OC.168</b> <b>07. Computational Techniques for Multiphase Flows</b> NUMERICAL SIMULATION OF A LASER-INDUCED VAPOUR BUBBLE FOR CRYSTAL NUCLEATION AT LOW SUPERSATURATION LEVELS <i>Hidman N, Sardina G, Maggiolo D, Ström H, Sasic S</i> <b>Niklas Hidman</b>
11h45 - 12h00	<b>OC.164</b> <b>02. Bubbly Flows</b> BUBBLE OSCILLATION IN LOW TO HIGHER VISCOUS LIQUIDS <i>Hlawitschka MW, Kováts P, Dönmez B, Zähringer K, Bart H-J</i> <b>Mark W. Hlawitschka</b>	<b>OC.169</b> <b>07. Computational Techniques for Multiphase Flows</b> HYBRID CFD SIMULATION OF TWO PHASE FLOW IN INLINE FLOW SPLITTERS USING VOF AND LAGRANGIAN MODELS <i>Atmani H, Legendre D, Zamansky R, Climent E, Pedrono A, Sahovic B, Schleicher E, Hampel U, Awais Sattar M, About L, Banasiak R</i> <b>Hanane Atmani</b>
12h00 - 12h15	<b>OC.165</b> <b>02. Bubbly Flows</b> BUBBLY WAKE BEHIND A BLUFF BODY: BUBBLE-INDUCED TURBULENCE <i>Park H, Lee J, Lee JH</i> <b>Hyungmin Park</b>	<b>OC.170</b> <b>07. Computational Techniques for Multiphase Flows</b> DROPLET SIZE DISTRIBUTIONS IN SHEARED MIXTURES OF TWO LIQUIDS SIMULATED BY THE PSEUDOPOTENTIAL LATTICE BOLTZMANN METHOD <i>Safdari A, Pourtousi M, Shardt O, Van den Akker HEA</i> <b>Arman Safdari</b>
12h15 - 12h30	<b>OC.166</b> <b>02. Bubbly Flows</b> TURBULENCE INTERACTIONS WITH LARGE BUBBLES <i>Soldati A, Soligo G, Roccon A</i> <b>Alfredo Soldati</b>	<b>OC.171</b> <b>07. Computational Techniques for Multiphase Flows</b> A ROBUST FINITE VOLUME METHOD FOR COMPRESSIBLE TWO-PHASE FLOWS ON HYBRID GRIDS <i>Luo H, Pandare AK, Bakosi J</i> <b>Hong Luo</b>
12h30 - 12h45	<b>OC.167</b> <b>02. Bubbly Flows</b> STEREO PIV CHARACTERIZATION OF THE STRUCTURE OF A BUBBLY COUETTE TAYLOR FLOW FOR DIFFERENT BUBBLE PATTERNS <i>Van Ruymbeke B, Gabillet C, Latrache N, Colin C, Oishi Y</i> <b>Céline Gabillet</b>	
Chairperson	Jacqueline Copetti	Stein Tore Johansen
<b>ROOM</b>	<b>SEGOVIA III</b>	<b>SEGOVIA IV</b>
11h30 - 11h45	<b>OC.172</b> <b>10. Experimental Methods for Multiphase Flows</b> EXPERIMENTAL ANALYSIS OF THREE-PHASE FLOWS IN HORIZONTAL PIPELINES <i>Sassi P, Pallarès J, Stiriba Y</i> <b>Paolo Sassi</b>	<b>OC.177</b> <b>19. Modelling of Multiphase Flows</b> DIRECT NUMERICAL SIMULATION OF MICROBUBBLE DYNAMICS IN TURBULENT CHANNEL FLOW <i>Zhai J, Fairweather M, Colombo M</i> <b>Jian Zhai</b>
11h45 - 12h00	<b>OC.173</b> <b>10. Experimental Methods for Multiphase Flows</b> IMPROVEMENTS OF IMAGE PROCESSING FOR THE ANALYSIS OF DENSE DISPERSED TWO-PHASE FLOWS <i>Rueda L, Colombet D, Cazin S, Cockx A, Legendre D, Guiraud P</i> <b>Pascal Guiraud</b>	<b>OC.178</b> <b>19. Modelling of Multiphase Flows</b> MULTI-SCALE MODELLING AND OPTIMIZATION OF A WIRE MESH SEPARATOR <i>Kaiser S, Piesche M</i> <b>Simon Kaiser</b>
12h00 - 12h15	<b>OC.174</b> <b>10. Experimental Methods for Multiphase Flows</b> SLUG FREQUENCY IN AIR-WATER INCLINED PIPE FLOW EXPERIMENT AND PREDICTION <i>Chang YJ, Wang YB, Liu ZG, Zhao XY, Guo LJ</i> <b>Yingjie Chang</b>	<b>OC.179</b> <b>19. Modelling of Multiphase Flows</b> NUMERICAL ANALYSIS OF THE MIXING PROCESS ON THE DOUBLE FLAME SPRAY PYROLYSIS <i>Rafagnim NZ, Hodapp MH, Bianchi Neto P, Meier HF, Fritsching U, Noriler D</i> <b>Nadine Zandoná Rafagnim</b>
12h15 - 12h30	<b>OC.175</b> <b>10. Experimental Methods for Multiphase Flows</b> CHARACTERIZATION OF VELOCITY FIELD EXTERNAL TO TUBE BUNDLE USING SPATIAL FILTER VELOCIMETRY BASED ON VARIABLE MESHING SCHEME. <i>Rocha DM, Kanizawa FT, Hayashi K, Hosokawa S, Tomiyama A, Ribatski G</i> <b>Douglas Rocha</b>	<b>OC.180</b> <b>19. Modelling of Multiphase Flows</b> EROSION IN ELBOWS IN SERIES FOR LIQUID-DOMINATED MULTIPHASE FLOWS: A CFD AND EXPERIMENTAL ANALYSIS <i>Sedrez TA, Shirazi SA</i> <b>Thiana Sedrez</b>
12h30 - 12h45	<b>OC.176</b> <b>10. Experimental Methods for Multiphase Flows</b> IDENTIFICATION AND CATEGORIZATION OF FLOW-REGIMES OF COUNTER-CURRENT LIQUID-LIQUID TWO-PHASE FLOW THROUGH INCLINED (45) CONDUIT OF 11 MM DIAMETER <i>Samal K, Ghosh S</i> <b>Suman Ghosh</b>	<b>OC.181</b> <b>19. Modelling of Multiphase Flows</b> AN ACCURATE SHARP INTERFACE METHOD FOR TWO-PHASE COMPRESSIBLE FLOWS AT LOW-MACH REGIME <i>Zou Z, Grenier N, Tenaud C, Audit E</i> <b>Ziqiang Zou</b>

Tuesday, May 21, 2019

Parallel Session VI

Chairperson	Olivier Simonin	Julien Sebilleau
ROOM	<b>ARANJUEZ</b>	<b>ORIENTE</b>
11h30 - 11h45	<b>OC.182</b> <b>23. Particle-Laden Flows</b> TOWARDS A COMPREHENSIVE UNDERSTANDING OF THE DYNAMICS OF FREELY EVOLVING PARTICLE SUSPENSIONS <i>Tavanashad V, Subramaniam S</i> <b>Shankar Subramaniam</b>	<b>OC.187</b> <b>03. Boiling, Condensation, Evaporation</b> CHARACTERISTICS OF INTERFACIAL OSCILLATION CAUSED BY CONDENSATION OF STEAM JET IN SUBCOOLED WATER FLOW <i>Chu X, Xu Q, Yu H, Yao T, Guo L</i> <b>Xiaona Chu</b>
11h45 - 12h00	<b>OC.183</b> <b>23. Particle-Laden Flows</b> COLLECTIVE BEHAVIOR OF FALLING INERTIAL PARTICLES IN A VERTICAL DUCT <i>Fong KO, Coletti F</i> <b>Filippo Coletti</b>	<b>OC.188</b> <b>03. Boiling, Condensation, Evaporation</b> NUMERICAL INVESTIGATION ON HEAT AND MASS TRANSFER DURING DROP IMPACT ON A HEATED SURFACE UNDER HIGH PRESSURE <i>Schlawitschek C, Stephan P, Gambaryan-Roisman T</i> <b>Christiane Schlawitschek</b>
12h00 - 12h15	<b>OC.184</b> <b>23. Particle-Laden Flows</b> DRAG REDUCTION AND TURBULENCE MODULATION IN SUSPENSIONS OF NON-SPHERICAL FINITE-SIZE PARTICLES <i>Brandt L, Niazi Ardekani M</i> <b>Luca Brandt</b>	<b>OC.189</b> <b>03. Boiling, Condensation, Evaporation</b> FLOW BOILING ON A CHEMICALLY PATTERNED SURFACE IN A MICROCHANNEL <i>Wang HZ, Qiu HH</i> <b>Hongzhao Wang</b>
12h15 - 12h30	<b>OC.185</b> <b>23. Particle-Laden Flows</b> LARGE EDDY SIMULATION OF PARTICLE-LADEN TURBULENT CHANNEL FLOWS WITH ISOTROPIC OR NON-ISOTROPIC WALL ROUGHNESS <i>Radenkovic D, Fede P, Simonin O, Crnojevic C</i> <b>Darko Radenkovic</b>	<b>OC.191</b> <b>03. Boiling, Condensation, Evaporation</b> EXPERIMENTAL ANALYSIS OF NUCLEATE BOILING ON NANOCOATED SURFACES UNDER CONFINED CONDITIONS <i>Nunes JM, Souza RR, Kiyomura IS, Cardoso EM</i> <b>Elaine Cardoso</b>
12h30 - 12h45	<b>OC.186</b> <b>23. Particle-Laden Flows</b> ORIENTATION, DISTRIBUTION AND DEFORMATION OF INERTIAL FLEXIBLE FIBERS IN TURBULENT CHANNEL FLOW <i>Dotto D, Marchioli C</i> <b>Cristian Marchioli</b>	
Chairperson	Chengzhen Sun	
ROOM	<b>ALHAMBRA II</b>	
11h30 - 11h45	<b>OC.192</b> <b>08. Droplet Flows</b> THE INFLUENCE OF OSCILLATIONS IN THE LIQUID AND GAS FLOW RATES ON THE LIQUID BREAK-UP INSTABILITIES AND ON THE CLUSTERING OF DROPLETS IN A TURBULENT COAXIAL SPRAY <i>Aliseda A, Huck P, Machicoane N, Osuna-Orozco R</i> <b>Alberto Aliseda</b>	
11h45 - 12h00	<b>OC.193</b> <b>08. Droplet Flows</b> CHARACTERIZATION OF LIQUID JET BREAKUP FOR THE SIMULATION OF ACCIDENTAL SODIUM LEAKAGE SCENARIOS IN SODIUM-COOLED FAST REACTORS <i>Sadek M, Gilardi T, Bazile R, Mimouni S, Porcheron L</i> <b>Mira Sadek</b>	
12h00 - 12h15	<b>OC.194</b> <b>08. Droplet Flows</b> DYNAMICS OF A BOUNCING DROP ON A HYDROPHOBIC SURFACE <i>Sharma PK, Surya S, Vyasarayani CP, Dixit HN</i> <b>Harish Dixit</b>	
12h15 - 12h30	<b>OC.195</b> <b>08. Droplet Flows</b> EXPERIMENTAL STUDY OF ATOMIZATION PARAMETERS FROM A LOW-PRESSURE PULSED INJECTOR WITH ETHANOL AND GASOLINE <i>Nigra Junior ELP, Krieger Filho GC, Santos RG</i> <b>Ednir Nigra</b>	
12h30 - 12h45	<b>OC.196</b> <b>08. Droplet Flows</b> MULTI-SCALE CHARACTERIZATION OF THE EFFECT OF GAS SWIRL ON THE SPRAY PRODUCED BY A COAXIAL TWO-FLUID ATOMIZER <i>Machicoane N, Huck PD, Morgan TB, Bothell JK, Osuna-Orozco R, Li D, Heindel TJ, Kastengren AL, Aliseda A</i> <b>Nathanael Machicoane</b>	



Tuesday, May 21, 2019

Parallel Session VII

Chairperson	Alfredo Soldati	Bryce Campbell
<b>ROOM</b>	<b>SEGOVIA I</b>	<b>SEGOVIA II</b>
15h00 - 15h15	<b>OC.197</b> <b>02. Bubbly Flows</b> BUBBLE INDUCED MIXING IN A STRATIFIED COLUMN <i>Ruiz-Angulo A, Amezcua A, Martinez-Mercado J, Zenit R</i> <b>Roberto Zenit</b>	<b>OC.201</b> <b>07. Computational Techniques for Multiphase Flows</b> COMPARISON OF INTERFACE CAPTURING SCHEMES IN SHARP-DISPERSED INTERFACIAL REGIMES <i>Gupta VK, Khaware A, Srikanth KVSS, Sanyal J</i> <b>Jay Sanyal</b>
15h15 - 15h30	<b>OC.198</b> <b>02. Bubbly Flows</b> THE INFLUENCE OF BASSET AND LIFT FORCES IN EULER/LAGRANGE PREDICTIONS OF BUBBLY FLOWS <i>Muniz M, Sommerfeld M</i> <b>Martin Sommerfeld</b>	<b>OC.202</b> <b>07. Computational Techniques for Multiphase Flows</b> A VOF-DEM COUPLED METHOD FOR MODELING WAVE IMPACT SPRAY <i>Patil A, Johansen ST</i> <b>Amit Patil</b>
15h30 - 15h45	<b>OC.200</b> <b>02. Bubbly Flows</b> TURBULENT KINETIC ENERGY DISSIPATION LENGTH IN AN INVERTED-SHROUD GAS-LIQUID SEPARATOR <i>Miranda PJ, Ortiz-Vidal LE, Rodriguez O</i> <b>Pedro Miranda</b>	<b>OC.203</b> <b>07. Computational Techniques for Multiphase Flows</b> SIMULATION OF BAROCLINIC VORTICITY GENERATION IN MULTIPHASE FLOWS <i>Nowakowski AF, Nicolleau FCGA</i> <b>Andrzej Nowakowski</b>
15h45 - 16h00		<b>OC.204</b> <b>07. Computational Techniques for Multiphase Flows</b> SIMULATIONS OF COMPRESSIBLE MULTICOMPONENT FLOWS USING A SIMPLIFIED FRONT TRACKING / GHOST FLUID METHOD <i>Bempedelis N, Ventikos Y</i> <b>Nikolaos Bempedelis</b>
<b>Chairperson</b>	<b>Moisés Marcelino Neto</b>	<b>Rigoberto Morales</b>
<b>ROOM</b>	<b>SEGOVIA III</b>	<b>SEGOVIA IV</b>
15h00 - 15h15	<b>OC.205</b> <b>10. Experimental Methods for Multiphase Flows</b> A GENERAL REVIEW OF THE EXPERIMENTAL METHODS FOR ESTIMATIVE OF HEAT FLUX DURING IN TUBE FLOW <i>Constantino MC, Kanizawa FT</i> <b>Fabio Toshio Kanizawa</b>	<b>OC.209</b> <b>19. Modelling of Multiphase Flows</b> TWO-PHASE FLOW AND ATOMIZATION AT THE EXIT OF A RECTANGULAR CHANNEL. <i>Bolcain A, Ern P, Colin C, Ciaïis V</i> <b>Adrien Bolcain</b>
15h15 - 15h30	<b>OC.206</b> <b>10. Experimental Methods for Multiphase Flows</b> EXPERIMENTAL THERMAL-HYDRAULIC STUDY OF A STEAM-DROPLETS FLOW INSIDE A VERTICAL PIPE DURING THE COOLING PHASE IN LOCA CONDITIONS – EFFECT OF THE STEAM FLOW RATE <i>Pena Carillo JD, Oliveira A, Labergue A, Gradeck M, Glantz T</i> <b>Michel Gradeck</b>	<b>OC.211</b> <b>19. Modelling of Multiphase Flows</b> NUMERICAL STUDY ON PERFORMANCE OF CENTRIFUGAL MULTIPHASE PUMP FOR CONTINUOUS AND INTERMITTENT GAS-LIQUID FLOW <i>Chang L, Yang CY, Zhang XM, Xu Q, Guo LJ</i> <b>Liang Chang</b>
15h30 - 15h45	<b>OC.207</b> <b>10. Experimental Methods for Multiphase Flows</b> VOLUME AND SHAPE EVOLUTION OF A RISING BUBBLE: A COMPARATIVE STUDY BETWEEN VISUAL TOMOGRAPHY AND OTHER VISUAL TECHNIQUES <i>Oppeneer VO, Mandalahalli MM, Portela LM</i> <b>Luis Portela</b>	<b>OC.212</b> <b>19. Modelling of Multiphase Flows</b> FLOW PATTERN SIMULATION OF GAS-LIQUID FLOW IN A BENCHMARK SUBSEA PUMPING MODULE <i>Correia CM, Filho PABO, Martins RS, Ramos R, Martins MF</i> <b>Marcio Martins</b>
15h45 - 16h00	<b>OC.208</b> <b>10. Experimental Methods for Multiphase Flows</b> DEVELOPMENT OF MULTIPHASE FLOW IMAGING TECHNIQUE USING NEUTRONS AND X-RAY <i>Ito D, Ito K, Saito Y</i> <b>Daisuke Ito</b>	

Tuesday, May 21, 2019

Parallel Session VII

Chairperson	Jochen Fröhlich	Matteo Bucci
ROOM	<b>ARANJUEZ</b>	<b>ORIENTE</b>
14h45 - 15h00	<b>OC.213</b> <b>23. Particle-Laden Flows</b> SURFACING AND CLUSTERING OF GYROTACTIC SWIMMERS IN FREE-SURFACE TURBULENCE <i>Bhatia H, Marchioli C, Soldati A</i> <b>Harshit Bhatia</b>	<b>OC.218</b> <b>03. Boiling, Condensation, Evaporation</b> DIRECT NUMERICAL STUDY OF PHASE CHANGE CALCULATIONS FOR FILM BOILING FLOWS <i>Guo LK, Knikker R, Albin E, Xin SH</i> <b>Longkai Guo</b>
15h00 - 15h15	<b>OC.214</b> <b>23. Particle-Laden Flows</b> SIMULATION OF PARTICLE-LADEN PIPE FLOWS WITH A HOMOGENEOUS STATIONARY SEDIMENT BED <i>Njobuenwu DO, Fairweather M</i> <b>Michael Fairweather</b>	<b>OC.219</b> <b>03. Boiling, Condensation, Evaporation</b> BUBBLE DYNAMICS AND HEAT TRANSFER ON BIPHILIC SURFACES <i>Pontes P, Cautela R, Teodori E, Moita AS, Moreira ALN</i> <b>Ana Moita</b>
15h15 - 15h30	<b>OC.215</b> <b>23. Particle-Laden Flows</b> PARTICLE DISPERSION IN AN AGITATED TUBULAR REACTOR <i>He Y, Bayly AE, Hassanpour A, Fairweather M, Muller F</i> <b>Yi He</b>	<b>OC.220</b> <b>03. Boiling, Condensation, Evaporation</b> SOME CHARACTERISTICS OF BUBBLE DYNAMICS DURING PRESSURE-INDUCED SUBCOOLED POOL BOILING <i>Wojtasik K, Rullière R, Zajaczkowski B, Bonjour J</i> <b>Karolina Wojtasik</b>
15h30 - 15h45	<b>OC.216</b> <b>23. Particle-Laden Flows</b> SETTLING OF FINITE-SIZE SPHEROIDS IN AMBIENT SURROUNDINGS <i>Moriche M, Uhlmann M, Dusek J</i> <b>Manuel Moriche Guerrero</b>	<b>OC.221</b> <b>03. Boiling, Condensation, Evaporation</b> ELUCIDATING THE EFFECT OF SURFACE ROUGHNESS ON SUBCOOLED FLOW BOILING AND CHF USING HIGH-RESOLUTION DIAGNOSTICS <i>Kossolapov A, Wang C, Seong JH, Su G, Phillips B, Bucci M</i> <b>Matteo Bucci</b>
15h45 - 16h00	<b>OC.217</b> <b>23. Particle-Laden Flows</b> FULLY CORRELATED STOCHASTIC INTER-PARTICLE COLLISION MODEL FOR EULER-LAGRANGE GAS-SOLID FLOWS <i>van Wachem B, Curran T, Evrard F</i> <b>Berend van Wachem</b>	<b>OC.222</b> <b>03. Boiling, Condensation, Evaporation</b> CRITICAL HEAT FLUX IN FLOW BOILING FROM DIRECT REPRESENTATION OF WALL HEAT PARTITIONING <i>Baglietto E, Demarly E, Kommajosyula R</i> <b>Emilio Baglietto</b>
Chairperson	Alberto Aliseda	
ROOM	<b>ALHAMBRA II</b>	
14h45 - 15h00	<b>OC.223</b> <b>08. Droplet Flows</b> HYBRID-WETTABILITY RATCHET CAN ACCELERATE SELF-PROPELLING DROPS OVER GRAVITY <i>Shirota M, Konno Y, Kato M</i> <b>Minori Shirota</b>	
15h00 - 15h15	<b>OC.224</b> <b>08. Droplet Flows</b> NUMERICAL SIMULATION OF COALESCENCE USING SUB-GRID MODELS <i>Naru MC, Popinet S, Vinay G</i> <b>Mani Chandan Naru</b>	
15h15 - 15h30	<b>OC.225</b> <b>08. Droplet Flows</b> STUDY OF INITIAL DROPLET CONDITIONS FOR NUMERICAL SPRAY PAINTING BY ELECTROSTATIC ASSISTED ROTARY BELL ATOMIZER <i>Guettler N, Shen B, Paustian S, Knee P, Ye Q, Tiedje O</i> <b>Nico Guettler</b>	
15h30 - 15h45	<b>OC.226</b> <b>08. Droplet Flows</b> EVAPORATION OF A SESSILE DROPLET UNDER FORCED-CONVECTIVE GAS FLOW <i>Boer L, van der Geld C, Kuerten H, Kuipers H</i> <b>Leander Boer</b>	
15h45 - 16h00	<b>OC.227</b> <b>08. Droplet Flows</b> NUMERICAL STUDY OF CAVITATION EVOLUTION PROCEDURE OF PERFLUOROCARBON DROPLETS TRIGGERED BY EXPANSION WAVES GENERATED IN HIGH-SPEED IMPINGEMENT <i>Wu W, Wang B, Gao Z</i> <b>Wangxia Wu</b>	

Tuesday, May 21, 2019

Parallel Session VIII

Chairperson	Eric Climent	Dominique Legendre
<b>ROOM</b>	<b>SEGOVIA I</b>	<b>SEGOVIA II</b>
16h25 - 16h40	<b>OC.228</b> 02. Bubbly Flows INERTIAL AND BUOYANCY EFFECTS ON HORIZONTAL FLOW OF ELONGATED BUBBLES IN CIRCULAR CHANNELS <i>Moran H, Magnini M, Markides CN, Matar OK</i> <b>Hannah Moran</b>	<b>OC.233</b> 07. Computational Techniques for Multiphase Flows A NOVEL ALL-MACH COMPRESSIBLE FORMULATION INCLUDING SURFACE TENSION EFFECTS <i>Fuster D, Popinet S</i> <b>Daniel Fuster</b>
16h40 - 16h55	<b>OC.229</b> 02. Bubbly Flows BUBBLE SIZE DISTRIBUTIONS IN A SLURRY BUBBLE COLUMN VIA A NEW SHADOWGRAPHIC PROBE <i>Wirz D, Bart H-J</i> <b>Dominic Wirz</b>	<b>OC.234</b> 07. Computational Techniques for Multiphase Flows SIMULATION OF THE UNSTEADY DISPERSION OF ASBESTOS FIBERS FROM A CONTAINMENT ZONE DUE TO WIND EFFECTS USING A COUPLED CFD-NETWORK APPROACH <i>Guichard R</i> <b>Romain Guichard</b>
16h55 - 17h10	<b>OC.230</b> 21. Non-Newtonian Multiphase Flows CFD SIMULATION OF TWO-PHASE GAS/NON-NEWTONIAN FLUID FLOW IN PIPES <i>Daza M, Pinilla A, Pereyra E, Ratkovich N</i> <b>Andres Pinilla</b>	<b>OC.235</b> 07. Computational Techniques for Multiphase Flows SPURIOUS OSCILLATIONS IN CURVATURE CAUSED BY TRADITIONAL LEVEL SET REINITIALIZATION METHODS AND AN ALTERNATIVE METHOD TO AVOID THEM <i>Lorieul G, Chatelain P, Bartosiewicz Y</i> <b>Gael Lorieul</b>
17h10 - 17h25	<b>OC.231</b> 21. Non-Newtonian Multiphase Flows DIAGNOSTICS OF LIQUID AND GELLED ETHANOL SPRAYS BY A PRESSURE SWIRL INJECTOR <i>Fischer GAA, Costa FS</i> <b>Fernando Costa</b>	<b>OC.236</b> 07. Computational Techniques for Multiphase Flows NUMERICAL INVESTIGATION ON THE BUBBLE SIZE DISTRIBUTION AROUND NACA0015 HYDROFOIL <i>Vahaji S, Han J, Cheung SCP, Yeah GH, Tu JY</i> <b>Jiyuan Tu</b>
17h25 - 17h40	<b>OC.232</b> 23. Particle-Laden Flows MULTI-SCALE STRUCTURAL CHARACTERISTICS OF GAS-PARTICLE TWO-PHASE AXISYMMETRIC TURBULENT OPPOSED JETS FLOW <i>Li J, Liu Z</i> <b>Jing Li</b>	<b>OC.237</b> 07. Computational Techniques for Multiphase Flows MICRO DIESEL EFFECT SIMULATION <i>Kratschun F, Schmitz K</i> <b>Filipp Kratschun</b>
<b>Chairperson</b>	<b>Jader Barbosa</b>	<b>Rogério Ramos</b>
<b>ROOM</b>	<b>SEGOVIA III</b>	<b>SEGOVIA IV</b>
16h25 - 16h40	<b>OC.238</b> 10. Experimental Methods for Multiphase Flows DYNAMIC MODE DECOMPOSITION FOR ANALYZING TWO-PHASE FLOWS VIDEO DATA <i>Ramos EM, Giraldo GA, Darze GM, Faccini JLH</i> <b>Eliaquim Ramos</b>	<b>OC.243</b> 19. Modelling of Multiphase Flows NUMERICAL INVESTIGATIONS OF THE CENTRIFUGAL LIGAMENT-MODE ATOMIZATION PROCESS <i>Kandati SS, Nikitopoulos DE</i> <b>Sai Saran Kandati</b>
16h40 - 16h55	<b>OC.239</b> 10. Experimental Methods for Multiphase Flows RELEVANCE OF DIGITAL IN LINE HOLOGRAPHY FOR MULTIPHASE FLOWS CHARACTERIZATION <i>Lamadie F, Onofri FRA</i> <b>Fabrice Lamadie</b>	<b>OC.244</b> 19. Modelling of Multiphase Flows HYPERBOLICITY OF A SYSTEM OF DIFFERENTIAL EQUATIONS OF TWO-SPEED FLOW OF DISPERSED MIXTURES AND ITS' SOLUTION STABILITY <i>Kroshilin A, Kroshilin V</i> <b>Vladimir Kroshilin</b>
16h55 - 17h10	<b>OC.240</b> 10. Experimental Methods for Multiphase Flows MULTIPLE BUBBLES BEHAVIOR IN HIGH VISCOSITY LIQUID <i>Gao DY, Li X, Hou BL</i> <b>Deyang Gao</b>	<b>OC.245</b> 19. Modelling of Multiphase Flows CFD SUPPORTED GRAVITY SEPARATOR DESIGN <i>Steinhoff J, Charlafti E, Schäfer J, Kraume M, Bart H-J</i> <b>Jan Steinhoff</b>
17h10 - 17h25	<b>OC.241</b> 22. Particle, Bubble and Drop Dynamics EXPERIMENTAL INVESTIGATION OF DROPLET BREAKUP IN AIR FLOW <i>Chang S, Zhang W</i> <b>Chang Shinan</b>	<b>OC.246</b> 19. Modelling of Multiphase Flows SPATIALLY-AVERAGED MODELS FOR HEAT TRANSFER IN DENSE GAS-SOLID FLOWS: CONSTITUTIVE RELATIONS <i>Rauchenzauner S, Schneiderbauer S</i> <b>Stefanie Rauchenzauner</b>
17h25 - 17h40	<b>OC.242</b> 10. Experimental Methods for Multiphase Flows ENTRAINMENT CONTROL USING A NEWLY DEVELOPED TELECENTRIC IN-LINE PROBE <i>Schulz J, Bart H-J</i> <b>Jonas Schulz</b>	<b>OC.247</b> 19. Modelling of Multiphase Flows MECHANISMS OF CONDENSATION AND COALESCENCE IN SELF-CLEANING HEAT EXCHANGERS <i>Sasic S, Maggiolo D, Ström H</i> <b>Srdjan Sasic</b>

Tuesday, May 21, 2019

Parallel Session VIII

Chairperson	Olivier Simonin	Cristiano Bigonha Tibiriçá
ROOM	<b>ARANJUEZ</b>	<b>ORIENTE</b>
16h25 - 16h40	<b>OC.248</b> 23. Particle-Laden Flows A SGS MODEL BASED ON THE COHERENT VORTEX STRUCTURES FOR INERTIA PARTICLES IN HOMOGENEOUS ISOTROPIC TURBULENCE <i>Xiong Y, Li J, Liu ZH</i> <b>Zhaohui Liu</b>	<b>OC.253</b> 03. Boiling, Condensation, Evaporation MICROLAYER GROWTH IN SODIUM BOILING FLOWS <i>Iyer S, Kumar A, Coventry J, Pye J, Lipinski W</i> <b>Siddharth Iyer</b>
16h40 - 16h55	<b>OC.249</b> 23. Particle-Laden Flows CFD SIMULATION OF SHEAR INDUCED MICRO-PARTICLE DISPERSION ACCOUNTING PARTICLE AGGREGATION AND BREAKAGE IN TURBULENT TAYLOR-COUETTE FLOW <i>Xue C, Yang X, Li G</i> <b>Chenyang Xue</b>	<b>OC.254</b> 01. Bio-Fluids EFFECT OF IN SITU FENESTRATION STENT GRAFT ON THE HEMODYNAMICS FOR THORACIC ENDOVASCULAR AORTIC REPAIR <i>Qiao YH, Mao L, Fan JR, Zhu T, Luo K</i> <b>Yonghui Qiao</b>
16h55 - 17h10	<b>OC.250</b> 23. Particle-Laden Flows NUMERICAL INVESTIGATION OF A PARTICLE-LADEN JET FOR COLD SPRAY COATING <i>Rona A, Zavalan FL</i> <b>Florentina-Luiza Zavalan</b>	<b>OC.255</b> 01. Bio-Fluids PATIENT-SPECIFIC ASSESSMENT OF HEMODYNAMICS OF HEART <i>Kannojiya V, Das AK, Das PK</i> <b>Arup Kumar Das</b>
17h10 - 17h25	<b>OC.251</b> 23. Particle-Laden Flows DIRECT NUMERICAL SIMULATION OF SEDIMENT TRANSPORT IN AN OSCILLATORY BOUNDARY LAYER <i>Mozzuoli M, Calantoni J, Uhlmann M</i> <b>Marco Mazzuoli</b>	<b>OC.256</b> 01. Bio-Fluids 3D COMPUTATIONAL SIMULATIONS OF LIQUID PLUG MOTION AND DEPOSITION THROUGH STRAIGHT TUBES AND BIFURCATING AIRWAY MODELS WITH A PRE-EXISTING LIQUID FILM <i>Hoi C, Raessi M</i> <b>Mehdi Raessi</b>
17h25 - 17h40	<b>OC.252</b> 23. Particle-Laden Flows ANALYSIS OF TURBULENT CHANNEL FLOWS LADEN WITH FINITE-SIZE SOLID PARTICLES <i>Wang LP, Peng C</i> <b>Lian-Ping Wang</b>	<b>OC.257</b> 01. Bio-Fluids LIQUID-LIQUID TWO LAYER FLOW FOR MEDICAL CELL THERAPY <i>Nozaki T, Morikawa T, Obara H</i> <b>Hirokichi Obara</b>
Chairperson	Minori Shirota	
ROOM	<b>ALHAMBRA II</b>	
16h25 - 16h40	<b>OC.258</b> 08. Droplet Flows FREEZING SPLASHES <i>Josserand C, Séon T, Thievenaz V</i> <b>Christophe Josserand</b>	
16h40 - 16h55	<b>OC.259</b> 08. Droplet Flows MIXING OF A COLD DROPLET IMPACTING ON A HOT FILM: EFFECT OF FILM HEIGHT <i>Long F, Chen G, Hann DB</i> <b>David Hann</b>	
16h55 - 17h10	<b>OC.261</b> 08. Droplet Flows DIRECT NUMERICAL SIMULATION OF HIGH VELOCITY DROPLET IMPACT <i>Estivalèzes JL, Xavier T, Zuzio D</i> <b>Jean-Luc Estivalèzes</b>	
17h10 - 17h25	<b>OC.262</b> 08. Droplet Flows SIMULATIONS OF COMPLEX DROP IMPACTS ON INTERFACES <i>Kahouadji L, Batchv A, Craster RV, Matar OK</i> <b>Lyes Kahouadji</b>	
17h25 - 17h40		

Wednesday, May 22, 2019

Parallel Session IX

Chairperson	Pavel Lobanov	Martin Sommerfeld
ROOM	<b>SEGOVIA I</b>	<b>SEGOVIA II</b>
10h05 - 10h20	<b>OC.263</b> 22. Particle, Bubble and Drop Dynamics HYDRODYNAMICS OF INTERACTING GAS BUBBLES AND OIL DROPLETS <i>Karp J, Stahnke C, Mancilla E, Morales R            Joel Karp</i>	<b>OC.267</b> 07. Computational Techniques for Multiphase Flows AIR ENTRAINMENT MODELLING USING A LAGRANGIAN ACCURATE NUMERICAL MODEL FOR HIGH-DENSITY RATIO TWO-PHASE MIXTURES <i>Fonty T, Ferrand M, Leroy A, Violeau D            Thomas Fonty</i>
10h20 - 10h35	<b>OC.265</b> 22. Particle, Bubble and Drop Dynamics INERTIAL COLLAPSE OF INDIVIDUAL BUBBLES NEAR A RIGID SURFACE <i>Beig SA, Johnsen E            Shahaboddin Alahyari Beig</i>	<b>OC.268</b> 07. Computational Techniques for Multiphase Flows ON THE LIMITATIONS AND CAPABILITIES OF LES FOR AIR CAVITY FLOWS <i>Rotte GM, Charruault FT, Kerkvliet MS, van Terwisga TJC            Gem Rotte</i>
10h35 - 10h50	<b>OC.266</b> 22. Particle, Bubble and Drop Dynamics NUMERICAL SIMULATION AND EXPERIMENTAL ANALYSIS FOR THE BUBBLE GROWTH RADIUS <i>Paschoal MFA, Manetti LL, Silva JBC, Cardoso EM            Elaine Cardoso</i>	<b>OC.269</b> 07. Computational Techniques for Multiphase Flows POST-PROCESSING OF TWO-PHASE DNS SIMULATIONS EXPLOITING GEOMETRICAL FEATURES AND TOPOLOGICAL INVARIANTS TO EXTRACT FLOW STATISTICS AND DROPLETS NUMBER DENSITY <i>Di Battista R, Bermejo-Moreno I, Ménard T, Massot M            Ruben Di Battista</i>
10h50 - 11h05		<b>OC.270</b> 07. Computational Techniques for Multiphase Flows EXPLORING DIFFERENT APPROACHES FOR THE SIMULATION OF MULTI-SCALE ATOMIZATION PROCESS <i>Remigi A, Di Battista R, Massot M, Demoulin FX,            Duret B, Reveillon J, Ménard T, Hugo D            Alberto Remigi</i>
Chairperson	Dalton Bertoldi	Michael Schlüter
ROOM	<b>SEGOVIA III</b>	<b>SEGOVIA IV</b>
10h05 - 10h20	<b>OC.271</b> 10. Experimental Methods for Multiphase Flows NONLINEAR ANALYSIS OF FLOW PATTERNS AND PRESSURE DROP FLUCTUATIONS DURING FLOW BOILING OF R-600A <i>Oliveira JD, Copetti JB, Passos JC, Pandolfi C, Shen LY            Jefferson Diehl de Oliveira</i>	<b>OC.275</b> 19. Modelling of Multiphase Flows MODELING OF TRANSPORT OF RHEOLOGICAL COMPLEX MULTIPHASE FLUIDS IN PORES AND POROUS MEMBRANES <i>Schulz A, Fritsching U            Alexander Schulz</i>
10h20 - 10h35	<b>OC.272</b> 10. Experimental Methods for Multiphase Flows VELOCITY VECTOR MEASUREMENTS OF LBE FLOWS BY USING NEUTRON IMAGING <i>Saito Y, Ariyoshi G, Ito D, Ito K            Yasushi Saito</i>	<b>OC.276</b> 19. Modelling of Multiphase Flows EFFECTIVE MIXTURE VISCOSITY CORRELATION FOR GAS-LIQUID FLOW IN A LARGE ANNULAR DUCT <i>Barbosa MC, Bortoloti AF, Castro MS, Rodriguez OMH            Marcel Cavallini Barbosa</i>
10h35 - 10h50	<b>OC.273</b> 10. Experimental Methods for Multiphase Flows GAS-LIQUID FLOW RATE MEASUREMENT USING A TWIN- PLANE CAPACITIVE SENSOR AND A VENTURI METER <i>Wrasse AN, Bertoldi D, Morales REM, Silva MJ            Aluisio do Nascimento Wrasse</i>	<b>OC.277</b> 19. Modelling of Multiphase Flows NUMERICAL MODELLING OF GAS-LIQUID FLOW IN A PARTIALLY AERATED BUBBLE COLUMN <i>Zhu SJ, Ooi A, Manasseh R            Shuang Zhu</i>
10h50 - 11h05	<b>OC.274</b> 10. Experimental Methods for Multiphase Flows EXPERIMENTAL ANALYSIS ON THE FLOW DEVELOPMENT OF GAS-LIQUID SLUG TWO- PHASE FLOW IN A HORIZONTAL PIPE <i>Rodrigues RLP, Barros HAA, Naidek BP, Cozin C,            Marcelino Neto MA, Silva MJ, Morales REM            Rômulo Luis de Paiva Rodrigues</i>	<b>OC.278</b> 19. Modelling of Multiphase Flows MODELING OF MULTIPHASE FLOWS OF BOILING FLUIDS IN THIN CIRCULAR CHANNELS WITH A MOVING SURFACE <i>Savin L, Polyakov R, Kornaev A, Babin A            Roman Polyakov</i>

Wednesday, May 22, 2019

Parallel Session IX

Chairperson	Cristian Marchioli	Panagiota Angeli
ROOM	<b>ARANJUEZ</b>	<b>ORIENTE</b>
09h50 - 10h05	<b>OC.279</b> 23. Particle-Laden Flows EULERIAN MODELING OF MONODISPERSE GAS-PARTICLE FLOW WITH ELECTROSTATIC FORCES <i>Montilla C, Nasro-Allah Y, Ansart R, Fox RO, Simanin O</i> <b>Carlos Montilla</b>	<b>OC.284</b> 20. Multiphase Flow in Heat and Mass Transfer EFFECT OF ARGON AND ARGON-STEAM FLOW ON TEMPERATURE DISTRIBUTION ACROSS INDIAN PHWR CHANNEL <i>Yadav SK, Kumar R, Majumdar P, Mukhopadhyay D</i> <b>Ravi Kumar</b>
10h05 - 10h20	<b>OC.280</b> 23. Particle-Laden Flows IMPACT OF LARGE EDDY SIMULATION FRAMEWORK ON THE DESCRIPTION OF PARTICLE DYNAMICS <i>Mercier D, Vié A, Massot M</i> <b>Aymeric Vié</b>	<b>OC.285</b> 20. Multiphase Flow in Heat and Mass Transfer EXPERIMENTAL INVESTIGATION ON THE TRIGGER MECHANISM OF THE FLOW INSTABILITY ON THE BOILING CRISIS IN THE MINI CHANNEL WITH BYPASS <i>Lu Q, Zhang H, Shen C, Zhou L, Chen X, Zhang H</i> <b>Qi Lu</b>
10h20 - 10h35	<b>OC.281</b> 23. Particle-Laden Flows LAGRANGIAN POINT FORCE REGULARIZATION FOR DISPERSED TWO-PHASE FLOWS. <i>Poustis JF, Senoner JM, Villedieu P</i> <b>Jean-François Poustis</b>	<b>OC.286</b> 20. Multiphase Flow in Heat and Mass Transfer STUDY ON WAKE SEPARATION CHARACTERISTICS OF DIFFERENT CYLINDER STRUCTURES <i>Wang JZ, Xie XD, Wang YC, Guo LJ</i> <b>Jinzhi Wang</b>
10h35 - 10h50	<b>OC.282</b> 23. Particle-Laden Flows CELL STRUCTURES IN NATURAL CONVECTION CONTAINING NEUTRALLY-BUOYANT CONDUCTIVE PARTICLES <i>Takeuchi S, Gu JC, Kajishima T</i> <b>Shintaro Takeuchi</b>	<b>OC.287</b> 20. Multiphase Flow in Heat and Mass Transfer FLOW SEPARATION CHARACTERISTICS OF SLUG FLOW AROUND BOREHOLE PIPE <i>Xie XD, Guo LJ, Wang JZ, Wang YC</i> <b>Xiangdong Xie</b>
10h50 - 11h05	<b>OC.283</b> 23. Particle-Laden Flows IMPACT OF PARTICLE FIELD HETEROGENEITY ON THE DYNAMICS OF TURBULENT TWO-WAY COUPLED PARTICULATE FLOWS <i>Letournel R, Laurent F, Massot M, Vié A</i> <b>Roxane Letournel</b>	<b>OC.288</b> 20. Multiphase Flow in Heat and Mass Transfer TOWARDS THE DEVELOPMENT OF FLOW PATTERN MAPS FOR THERMALLY-INDUCED PULSATING TWO-PHASE FLOWS <i>Pietrasanta L, Mamei M, Georgoulas A, Miche N, Filippeschi S, Marengo M</i> <b>Luca Pietrasanta</b>
Chairperson	Koichi Hishida	
ROOM	<b>ALHAMBRA II</b>	
09h50 - 10h05	<b>OC.289</b> 08. Droplet Flows EXPERIMENTAL AND NUMERICAL STUDY OF DROPLETS CROSSING A LIQUID-LIQUID INTERFACE <i>El Itawi H, Lallane B, Masbernat O, Massiera G, In M, Le Sauze N</i> <b>Hassan El Itawi</b>	
10h05 - 10h20	<b>OC.290</b> 08. Droplet Flows NUMERICAL SIMULATION FOR DROPLETS FORMATION DUE TO BREAKING WAVES <i>Dang ST, Johansen ST, Morud JC</i> <b>Son Tung Dang</b>	
10h20 - 10h35	<b>OC.291</b> 08. Droplet Flows CONTACT TIME BETWEEN A DROPLET AND A LIQUID FILM <i>Duchemin L, Josserand C</i> <b>Laurent Duchemin</b>	
10h35 - 10h50	<b>OC.292</b> 08. Droplet Flows EXPERIMENTAL AND NUMERICAL CHARACTERIZATION OF LIQUID JET INJECTED INTO AIR CROSSFLOW WITH ACOUSTIC FORCING <i>Desclaux A, Thuillet S, Zuzio D, Bodoc V, Gajan P</i> <b>Anthony Desclaux</b>	
10h50 - 11h05	<b>OC.293</b> 08. Droplet Flows MICRO-DROPLET TEMPERATURE IMAGING BY LIF-THERMOMETRY WITH MDR-ENHANCED ENERGY TRANSFER <i>Schumacher L, Palmer J, Reddemann MA, Kneer R</i> <b>Leif Schumacher</b>	

Wednesday, May 22, 2019

Parallel Session X

Chairperson	Steven Ceccio	Jorge Baliño
<b>ROOM</b>	<b>SEGOVIA I</b>	<b>SEGOVIA II</b>
11h30 - 11h45	<b>OC.294</b> 22. Particle, Bubble and Drop Dynamics VISUALIZATION OF WATER-IN-OIL DISPERSIONS WITHIN A CENTRIFUGAL PUMP IMPELLER <i>Perissinotto RM, Monte Verde W, Biazussi JL, Castro MS, Bannwart AC</i> <b>Rodolfo Perissinotto</b>	<b>OC.299</b> 09. Environmental and Geophysical Flows SIMULATION OF SEDIMENT TRANSPORT WITH POLYMORPH PARTICLES <i>Jain R, Tschisgale S, Fröhlich J</i> <b>Jochen Fröhlich</b>
11h45 - 12h00	<b>OC.295</b> 22. Particle, Bubble and Drop Dynamics A SLINGSHOT DEVICE FOR THE EXPERIMENTAL INVESTIGATION OF HIGH-SPEED DROP IMPACT <i>Gloerfeld M, Schreimb M, Tropea C</i> <b>Mark Gloerfeld</b>	<b>OC.300</b> 09. Environmental and Geophysical Flows NUMERICAL INVESTIGATIONS OF TURBULENT INFLUENCES ON DROPLET GROWTH IN LACIS-T <i>Schmaljuss S, Niedermeier D, Voigtländer J, Stratmann F</i> <b>Silvio Schmaljuss</b>
12h00 - 12h15	<b>OC.296</b> 22. Particle, Bubble and Drop Dynamics PRESSURE CENTER DETERMINATION FOR NON- SPHERICAL PARTICLES OF REGULAR SHAPE <i>Lain S, Castang CE, Sommerfeld M</i> <b>Santiago Lain</b>	<b>OC.301</b> 09. Environmental and Geophysical Flows DAM-BREAK FLOW OF A FLUIDIZED GAS-PARTICLE SUSPENSION: APPLICATION TO PYROCLASTIC FLOWS <i>Girolami L, Rizzo F</i> <b>Frédéric Rizzo</b>
12h15 - 12h30	<b>OC.297</b> 22. Particle, Bubble and Drop Dynamics A COUPLED VOLUME OF FLUID-LAGRANGIAN PARTICLE CLOUD METHOD TO CAPTURE THE INERTIA INDUCED DROPLET BOUNDARIES <i>Singh D, Das AK</i> <b>Arup Kumar Das</b>	<b>OC.302</b> 25. Turbulence in Multiphase Flows A MASS-CONSERVING VOLUME-OF-FLUID METHOD FOR DNS OF GAS-LIQUID FLOWS WITH PHASE CHANGE <i>Dodd MS, Ferrante A</i> <b>Antonino Ferrante</b>
12h30 - 12h45	<b>OC.298</b> 22. Particle, Bubble and Drop Dynamics SLIP OF A TINY SPHERICAL AIR BUBBLE AROUND AN AIR SLUG IN QUIESCENT LIQUID COLUMN <i>Rohilla L, Das AK</i> <b>Lokesh Rohilla</b>	<b>OC.303</b> 22. Particle, Bubble and Drop Dynamics FLOW STRUCTURE AROUND TAYLOR BUBBLES IN THE PRESENCE OF DISPERSED BUBBLES <i>Paladino EE, Cerqueira RFL, Maliska CR</i> <b>Emilio Paladino</b>
<b>Chairperson</b>	<b>Moisés Marcelino Neto</b>	<b>Kosuke Hayashi</b>
<b>ROOM</b>	<b>SEGOVIA III</b>	<b>SEGOVIA IV</b>
11h30 - 11h45	<b>OC.304</b> 12. Fluid-Structure Interactions ELASTIC COLLISION OF RIGID CYLINDERS IN A FLUID <i>Lee K, Eames I</i> <b>Kunhee Lee</b>	<b>OC.309</b> 19. Modelling of Multiphase Flows ANALYSIS OF DRAG FORCE IN GAS-SOLID FLUIDIZED BEDS BY FULLY RESOLVED DNS WITH AN IMPROVED IMMERSSED BOUNDARY METHOD <i>Wang Z, Tan J, Wang H, Jin J, Luo K, Fan J</i> <b>Zhuo Wang</b>
11h45 - 12h00	<b>OC.305</b> 12. Fluid-Structure Interactions INVESTIGATION OF DISCRETIZATION METHODS FOR SIMULATING MULTIPHASE FLOWS WITH MOVING GRIDS <i>Marino J, Shäfer M</i> <b>Jessica Marino</b>	<b>OC.310</b> 19. Modelling of Multiphase Flows INFLUENCE OF THE SOLUTION-GAS-OIL RATIO (RS) BLACK OIL MODELING ON THE MULTIPHASE FLOW MODELING FOR AN OIL WITH HIGH CO <sub>2</sub> CONTENT <i>Fonseca Junior R, Paiva LF</i> <b>Livia Fulchignoni de Paiva</b>
12h00 - 12h15	<b>OC.306</b> 12. Fluid-Structure Interactions ON SLUG FLOW-INDUCED VIBRATION IN LONG BENDABLE CURVED PIPE <i>Ma B, Srinil N, Zhu H</i> <b>Narakorn Srinil</b>	<b>OC.311</b> 19. Modelling of Multiphase Flows LIQUID DISPLACEMENT FROM LOWER SECTIONS OF HILLY TERRAIN NATURAL GAS PIPELINES <i>Hamami-Bissor E, Ullmann A, Brauner N</i> <b>Eitan Hamami Bissor</b>
12h15 - 12h30	<b>OC.307</b> 12. Fluid-Structure Interactions BEHAVIOR OF BUBBLE JETTING AND LOADING ON AIR-BACKED PLATE SUBJECTED TO CLOSE-IN UNDERWATER EXPLOSION <i>An FJ, Zhang LH, Wu C, Zhang YX</i> <b>Fengjiang An</b>	<b>OC.313</b> 19. Modelling of Multiphase Flows SIMULATION OF TURBULENT MICROBUBBLE- LADEN FLOWS WITH DETERMINISTIC COALESCENCE AND BREAKUP MODELS <i>Hoppe F, Breuer M</i> <b>Felix Hoppe</b>
12h30 - 12h45	<b>OC.308</b> 12. Fluid-Structure Interactions 3D FLOW FIELD MEASUREMENTS IN THE WAKE OF A TETHERED SPHERE UNDERGOING VIV <i>Eshbal L, Kovalev D, Rinsky V, Greenblatt D, van Hout R</i> <b>Lior Eshbal</b>	

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Parallel Session X

Chairperson	Dirk Lucas	Elaine Cardoso
ROOM	<b>ARANJUEZ</b>	<b>ORIENTE</b>
11h30 - 11h45	<b>OC.314</b> <b>23. Particle-Laden Flows</b> STATISTICAL ANALYSIS OF LAB-SCALE PRESSURIZED FLUIDIZED BED SIMULATIONS USING A LES-DEM APPROACH <i>Nigmatova A, Masi E, Simonin O, Dufresne Y, Moureau V, Lartigue G</i> <b>Ainur Nigmatova</b>	<b>OC.319</b> <b>20. Multiphase Flow in Heat and Mass Transfer</b> STUDY ON ASH DEPOSITION CHARACTERISTICS OF FLUE GAS INSIDE TWISTED OVAL TUBES <i>Zhu DS, Li XZ, Liu SJ, Lin CD</i> <b>Zhu Dongsheng</b>
11h45 - 12h00	<b>OC.315</b> <b>23. Particle-Laden Flows</b> FINITE-SIZE COHERENT STRUCTURES: A UNIVERSAL PHENOMENON? <i>Kuhlmann HC, Romanò F</i> <b>Hendrik Kuhlmann</b>	<b>OC.320</b> <b>20. Multiphase Flow in Heat and Mass Transfer</b> DOWNWARD LIQUID FLOW IN PARALLEL PIPES WITH EVAPORATION <i>Hayat RR, Barnea D, Taitel Y</i> <b>Yehuda Taitel</b>
12h00 - 12h15	<b>OC.316</b> <b>23. Particle-Laden Flows</b> ENHANCEMENT VERSUS HINDERING: IMPACT OF THE TURBULENCE CHARACTERISTICS ON THE SETTLING BEHAVIOR OF HEAVY SUB-KOLMOGOROV PARTICLES IN A TURBULENT FLOW <i>Sumbekova S, Bourgoin M, Aliseda A, Cartellier A</i> <b>Sholpan Sumbekova</b>	<b>OC.321</b> <b>20. Multiphase Flow in Heat and Mass Transfer</b> NUMERICAL INVESTIGATION ON THE HEAT TRANSFER AND DRAG FORCE CHARACTERISTICS OF SUPERCRITICAL WATER FLOW PAST AN ENDOTHERMIC SPHERICAL PARTICLE <i>Wu ZQ, Jin H, Guo LJ</i> <b>Hui Jin</b>
12h15 - 12h30	<b>OC.317</b> <b>23. Particle-Laden Flows</b> PARTICLE DISTRIBUTION AND VELOCITY IN LAMINAR AND TRANSITIONAL PIPE FLOW <i>Paul S, Longmire EK</i> <b>Sagnik Paul</b>	<b>OC.322</b> <b>20. Multiphase Flow in Heat and Mass Transfer</b> AN EXPERIMENTAL INVESTIGATION OF DROPLETS FREEZING IN A HORIZONTAL TWO-PHASE PIPE FLOW <i>Voulgaropoulos V, Ramesh Kumar K, Sudha A, Sapin P, Matar OK, Markides CN</i> <b>Victor Voulgaropoulos</b>
12h30 - 12h45	<b>OC.318</b> <b>23. Particle-Laden Flows</b> FULLY RESOLVED SIMULATION OF CHAR PARTICLE COMBUSTION BY IMMERSED BOUNDARY-LATTICE BOLTZMANN METHOD <i>Jiang MQ, Liu ZH</i> <b>Maoqiang Jiang</b>	
Chairperson	Norberto Mangiacavchi	
ROOM	<b>ALHAMBRA II</b>	
11h30 - 11h45	<b>OC.323</b> <b>08. Droplet Flows</b> NUMERICAL INVESTIGATION OF DROPLET IMPACT ON METALLIC MESHES <i>Vontas K, Boscariol C, Andredaki M, Georgoulas A, Walther JH, Marengo M</i> <b>Marco Marengo</b>	
11h45 - 12h00	<b>OC.324</b> <b>08. Droplet Flows</b> VISCOUS DROP RETRACTION <i>Pierson J-L, Magnaudet J, Soares E, Popinet S</i> <b>Jean-Lou Pierson</b>	
12h00 - 12h15	<b>OC.325</b> <b>08. Droplet Flows</b> EXPERIMENTAL INVESTIGATION OF SHOCK-INDUCED BREAKUP OF SINGLE VISCOELASTIC DROPLETS <i>Wang Z, Hopfes T, Giglmaier M, Adams NA</i> <b>Thomas Hopfes</b>	
12h15 - 12h30	<b>OC.326</b> <b>06. Colloidal and Suspension Dynamics</b> SMOOTHED PARTICLE HYDRODYNAMICS SIMULATION OF CLAY SEDIMENT MIXTURES <i>Khoo BC, Le CK, Phan-Thien N</i> <b>Boo Cheong Khoo</b>	
12h30 - 12h45	<b>OC.327</b> <b>15. Interfacial Flows</b> NUMERICAL RESEARCH ON THE DYNAMICS OF UNDERWATER SUPERSONIC JET <i>Xiang M, Zhou HC</i> <b>Min Xiang</b>	



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Parallel Session XI

Chairperson	Akio Tomiyama	Gustavo Ravello dos Anjos
<b>ROOM</b>	<b>SEGOVIA I</b>	<b>SEGOVIA II</b>
15h00 - 15h15	<b>OC.328</b> 22. Particle, Bubble and Drop Dynamics EXPERIMENTAL AND NUMERICAL INVESTIGATION ON THRESHOLD PRESSURE FOR O/W EMULSION FLOW IN SANDPACKS <i>Ding B, Dong M, Yu L</i> <b>Boxin Ding</b>	<b>OC.332</b> 06. Colloidal and Suspension Dynamics RHEOLOGY OF DENSE SUSPENSIONS IN SHEAR FLOW VIA SIMULATIONS WITH AN IMMERSSED BOUNDARY LATTICE BOLTZMANN METHOD <i>Srinivasan S, Van den Akker HEA, Shardt O</i> <b>Sudharsan Srinivasan</b>
15h15 - 15h30	<b>OC.329</b> 22. Particle, Bubble and Drop Dynamics EXPERIMENTAL STUDY OF SINGLE BUBBLES RISING IN A CONFINED RECTANGULAR CHANNEL <i>Sirino T, Mancilla E, Morales REM</i> <b>Thiago Sirino</b>	<b>OC.333</b> 06. Colloidal and Suspension Dynamics AGGREGATION EFFICIENCY OF COLLOIDAL CLUSTERS BY A STOKESIAN DYNAMICS APPROACH <i>Frungieri G, Vanni M</i> <b>Graziano Frungieri</b>
15h30 - 15h45	<b>OC.330</b> 22. Particle, Bubble and Drop Dynamics MODELLING AND SIMULATION OF FINE POWDER DEPOSITION IN LUNG MODELS AND BASIC CONFIGURATIONS <i>Sgrott Júnior OL, Sommerfeld M</i> <b>Martin Sommerfeld</b>	<b>OC.334</b> 06. Colloidal and Suspension Dynamics SETTLING OF BARITE PARTICLES IN OIL-BASED DRILLING FLUIDS <i>Kalaga D, Ansari M, Banerjee S, Kawaji M, Gyländ R, Lund B, Linga H</i> <b>Masahiro Kawaji</b>
15h45 - 16h00	<b>OC.331</b> 22. Particle, Bubble and Drop Dynamics DEFORMATION AND BREAKUP OF VISCOUS DROPS IN EXTENSIONAL FLOW <i>Lavrenteva OM, Smagin I, Nir A</i> <b>Olga Lavrenteva</b>	<b>OC.335</b> 06. Colloidal and Suspension Dynamics EXPERIMENTAL AND CFD STUDY OF THE OPERATION AND PHASE INVERSION PHENOMENA IN AN ELECTRICAL SUBMERSIBLE PUMP'S (ESP) UNDER TWO-PHASE LIQUID-LIQUID FLOW <i>Becerra D, Rozo D, Valdes J, Ratkovich N, Asuaje M</i> <b>Deisy Steffania Becerra Tuta</b>
Chairperson	Shuang Zhu	Rogério Ramos
<b>ROOM</b>	<b>SEGOVIA III</b>	<b>SEGOVIA IV</b>
15h00 - 15h15	<b>OC.337</b> 11. Fluidization MP-PIC SIMULATION OF CFB OPERATING MAP <i>Li F</i> <b>Fei Li</b>	<b>OC.340</b> 19. Modelling of Multiphase Flows MODELLING OF HIGH-VELOCITY FREE-SURFACE FLOWS: A REVISED INTERFACIAL AREA TRANSPORT MODEL <i>Vikhansky A, Tandon M</i> <b>Alexander Vikhansky</b>
15h15 - 15h30	<b>OC.338</b> 07. Computational Techniques for Multiphase Flows NUMERICAL STUDY ON TWO-PHASE FLOW IN AIR-LIFT PUMP <i>Yao C, Shimizu K, Takagi S</i> <b>Chao Yao</b>	<b>OC.341</b> 19. Modelling of Multiphase Flows DEVELOPMENT OF AN AEROSOL REACTOR MODEL FOR THE SYNTHESIS OF NANOSCALE MATERIALS <i>Prado MV, Jüngst N, Fritsching U, Noriler D</i> <b>Millene Prado</b>
15h30 - 15h45	<b>OC.339</b> 07. Computational Techniques for Multiphase Flows ON VORTICITY CONVERGENCE IN INTERFACIAL FLOWS <i>Vincent S, Estivalèzes JL, Legendre D, Tavares M, Ramdane S</i> <b>Stéphane Vincent</b>	<b>OC.342</b> 19. Modelling of Multiphase Flows APPLICATION OF STABILITY SOLVER TO OFFSHORE OIL PRODUCTION SYSTEMS <i>Andreolli I, Azevedo GR, Baliño JL</i> <b>Ivanilto Andreolli</b>
15h45 - 16h00		<b>OC.343</b> 19. Modelling of Multiphase Flows UPSTREAM TURBULENCE EFFECT ON JET BREAK- UP PROCESS IN LIQUID-LIQUID SIMULATIONS <i>Peña-Monferrer C, Sawko R, Skillen A, Thompson CP</i> <b>Robert Sawko</b>

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Parallel Session XI

Chairperson	Eric Climent	Arup Kumar Das
ROOM	<b>ARANJUEZ</b>	<b>ORIENTE</b>
14h45 - 15h00	<b>OC.344</b> 24. Reactive Multiphase Flows NUMERICAL SIMULATION OF THE COMBUSTION OF A MILLIMETER-SIZED CHAR PARTICLE Chen T, Jin H Tao Chen	<b>OC.349</b> 20. Multiphase Flow in Heat and Mass Transfer DEGREASING TECHNOLOGY WITH OZONE MICRO-BUBBLES GENERATED BY A VENTURI TUBE Yu RY, Fujii K, Kaneko A, Abe Y, Ike M Ruoyi Yu
15h00 - 15h15	<b>OC.345</b> 24. Reactive Multiphase Flows ATOMIZATION AND SPRAY CHARACTERISTICS OF THE SPRAYSYN-NOZZLE Stodt MFB, Buss L, Kiefer J, Fritsching U Malte Stodt	<b>OC.350</b> 20. Multiphase Flow in Heat and Mass Transfer EXPERIMENTAL CHARACTERISATION OF SATURATED ETHANOL TWO-PHASE FLOWS IN CIRCULAR CHANNELS Viscito L, Lips S, Revellin R Rémi Revellin
15h15 - 15h30	<b>OC.346</b> 24. Reactive Multiphase Flows COMPUTATIONAL FLUID DYNAMICS MODELING OF REACTIVE MULTIPHASE FLOWS FOR SUSPENDED PHOTOCATALYTIC WATER SPLITTING OF HYDROGEN PRODUCTION SYSTEM Yang Y, Liu HJ, Wei QY, Zhao L Yan Yang	<b>OC.351</b> 20. Multiphase Flow in Heat and Mass Transfer NUMERICAL MODELLING OF DIRECT REDUCTION OF IRON-ORE IN FLUIDIZED BEDS WITH CFD-DEM Kinaci ME, Lichtenegger T, Schneiderbauer S Mustafa Efe Kinaci
15h30 - 15h45	<b>OC.347</b> 24. Reactive Multiphase Flows A MULTI-MESH MODEL FOR FIXED-BED CONVERSION OF THERMALLY THICK BIOMASS Strom H, Li T Henrik Ström	<b>OC.352</b> 20. Multiphase Flow in Heat and Mass Transfer SATURATION TEMPERATURE EFFECTS ON THE BOILING PROPERTIES OF CARBON DIOXIDE IN MINI- AND MICRO-CHANNELS Hellenschmidt D, Petagna P Desiree Hellenschmidt
15h45 - 16h00	<b>OC.348</b> 24. Reactive Multiphase Flows SUSPENSION-FIRING OF BIOMASS FOR HEAT AND POWER GENERATION: A CLOSED MODEL FOR NON-SPHERICAL PARTICLE TRACKING Yin C Chungen Yin	<b>OC.353</b> 20. Multiphase Flow in Heat and Mass Transfer FREEZING DROP IMPACT Seon T, Thiévenaz V, Josserand C Thomas Seon
Chairperson	Kazuyasu Sugiyama	
ROOM	<b>ALHAMBRA II</b>	
14h45 - 15h00	<b>OC.354</b> 05. Collision, Agglomeration and Breakup THE ROLE OF THE VISCOSITY IN BINARY DROPLET COLLISIONS Al-Dirawi K, Bayly A Andrew Bayly	
15h00 - 15h15	<b>OC.355</b> 05. Collision, Agglomeration and Breakup FINITE-REYNOLDS HYDRODYNAMIC INTERACTIONS BETWEEN PARTICLES IN A SHEAR FLOW: IMPACT ON CROSS SECTION AND COLLISION EFFICIENCY Gissebrecht M, Kroll-Rabotin JS, Bellot JP, Ott B, Fröhlich J Jean-Sébastien Kroll-Rabotin	
15h15 - 15h30	<b>OC.356</b> 05. Collision, Agglomeration and Breakup THE IMPACT OF AN EXTERNAL ELECTRIC FIELD ON THE ATOMIZATION IN A COMBINED TWO-FLUID/ELECTRO-SPRAY COAXIAL INJECTOR Osuna-Orozco R, Machicoane N, Huck PD, Aliseda A Rodrigo Osuna Orozco	
15h30 - 15h45	<b>OC.357</b> 05. Collision, Agglomeration and Breakup ADHESION OF SINGLE AND AGGLOMERATED ICE PARTICLES AFTER NORMAL IMPACT WITH FLAT SURFACES Eidevåg T, Abrahamsson P, Eng M, Martín L, Rasmuson A Tobias Eidevåg	
15h45 - 16h00	<b>OC.358</b> 05. Collision, Agglomeration and Breakup NUMERICAL STUDY OF AGGREGATE RESTRUCTURING AND BREAKAGE AT FINITE REYNOLDS NUMBER CONDITIONS Saxena A, Kroll-Rabotin JS, Sanders RS Akash Saxena	

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Parallel Session XII

Chairperson	Ellen Longmire	Jader Barbosa
ROOM	SEGOVIA I	SEGOVIA II
16h25 - 16h40	<b>OC.359</b> 22. Particle, Bubble and Drop Dynamics ON THE DYNAMICS OF SKIRT BUBBLES <i>Legendre D</i> <b>Dominique Legendre</b>	HEWITT TRIBUTE: OPENING <i>Jader Barbosa</i>
16h40 - 16h55	<b>OC.360</b> 22. Particle, Bubble and Drop Dynamics MOTION OF SOLUBLE SURFACTANT LADEN DROPLET IN SQUARE MICROCHANNEL <i>Luo ZY, Shang XL, Bai BF</i> <b>Zhengyuan Luo</b>	<b>OC.364</b> 03. Boiling, Condensation, Evaporation CRITICAL HEAT FLUX AS A MASS FLUX DEPENDENT PHENOMENON: THEORETICAL ANALYSIS, EXPERIMENTAL CONFIRMATION AND FURTHER CFD APPLICATION <i>Ding W, Geiler T, Krepper E, Hampel U</i> <b>Wei Ding</b>
16h55 - 17h10	<b>OC.361</b> 22. Particle, Bubble and Drop Dynamics VISCOUS STRESS AND PRESSURE ACTING ON INTERFACE OF CONTAMINATED DROP <i>Hosokawa S, Shigekane G, Hayashi K, Tomiyama A</i> <b>Shigeo Hosokawa</b>	<b>OC.365</b> 10. Experimental Methods for Multiphase Flows LIQUID FILM CHARACTERIZATIONS IN UPWARD ANNULAR FLOW FOR COMPLEX GEOMETRIES <i>Roberts L, Adams R, Prasser H-M</i> <b>Lukas Roberts</b>
17h10 - 17h25	<b>OC.362</b> 22. Particle, Bubble and Drop Dynamics BOUNDARY STRUCTURE OF AXISYMMETRIC FLOW AROUND A SPHERICAL BUBBLE <i>Kusuno H, Sanada T</i> <b>Hiroaki Kusuno</b>	<b>OC.366</b> 19. Modelling of Multiphase Flows A PHYSICAL UNDERSTANDING OF DROPLET ENTRAINMENT IN ANNULAR FLOW BASED ON NUMERICAL DATA <i>Fan W, Cherdantsev AV, Li H, Anglart H</i> <b>Wenyuan Fan</b>
17h25 - 17h40	<b>OC.363</b> 22. Particle, Bubble and Drop Dynamics THREE PHASE SIMULATION OF DROPS AND BUBBLES IN A METAL-GAS-OXIDE SYSTEM <i>Semenov S, Haquet JF, Piluso PA, Antoni M</i> <b>Mickaël ANTONI</b>	<b>OC.367</b> 19. Modelling of Multiphase Flows THREE-DIMENSIONAL NUMERICAL SIMULATIONS OF WAVE DYNAMICS IN PLANAR AND ANNULAR FALLING FILMS <i>Batchvarov A, Kahouadji L, Craster RV, Matar OK</i> <b>Assen Batchvarov</b>
Chairperson	Yoichi Mito	Jorge Baliño
ROOM	SEGOVIA III	SEGOVIA IV
16h25 - 16h40	<b>OC.368</b> 24. Reactive Multiphase Flows 3D SIMULATION OF 150 KW CHEMICAL LOOPING COMBUSTION PILOT WITH BIOMASS AS FUEL <i>Sun LY, Masi E, Simonin O, Saanum I, Haugen N, Langrogen O</i> <b>Liyan Sun</b>	<b>OC.374</b> 19. Modelling of Multiphase Flows DIFFERENCES IN EULER-LAGRANGE MODELING OF DILUTE AND DENSE GAS-SOLID FLOWS <i>Venturi DN, Souza FJ</i> <b>Diego Venturi</b>
16h40 - 16h55	<b>OC.369</b> 24. Reactive Multiphase Flows MASS TRANSFER AND CHEMICAL REACTION IN A RANDOM ARRAY OF FIXED CATALYTIC PARTICLES <i>Climent E, Sulaiman M, Hammouti A, Wachs A</i> <b>Eric Climent</b>	<b>OC.376</b> 19. Modelling of Multiphase Flows LIQUID-LIQUID FLOW PATTERN TRANSITION IN PIPES USING MACHINE LEARNING <i>Quintino AM, Rocha DLLN, Rodriguez OMH</i> <b>André Mendes Quintino</b>
16h55 - 17h10	<b>OC.370</b> 24. Reactive Multiphase Flows ACHIEVEMENTS AND CHALLENGES IN DESIGN AND SCALE-UP OF MULTIPHASE REACTORS <i>Schlüter M, Rosseburg A</i> <b>Michael Schlüter</b>	<b>OC.377</b> 19. Modelling of Multiphase Flows EULERIAN MODELING OF CHARGE TRANSPORT IN MONODISPERSE AND BI-DISPERSE FLUIDIZED BEDS OF POLYETHYLENE PARTICLES <i>Ray M, Chowdhury F, Sowinski A, Mehrani P, Passalacqua A</i> <b>Alberto Passalacqua</b>
17h10 - 17h25	<b>OC.371</b> 24. Reactive Multiphase Flows DESIGN OF A BURNER FOR DIRECT METAL POWDER COMBUSTION FOR CLEAN HEAT AND POWER PRODUCTION <i>Pannjwani B, Mustapha C, Johansen ST, Zaabout A</i> <b>Balram Pannjwani</b>	
17h25 - 17h40	<b>OC.372</b> 24. Reactive Multiphase Flows MOLECULAR DYNAMIC STUDY ON DEGRADATION MECHANISM OF UNSYMMETRICAL DIMETHYLHYDRAZINE IN SUPERCRITICAL WATER <i>Yi L, Cheng K, Guo LJ, Jin H, Xu JL, Cheng ZN, Wei WW</i> <b>Lei Yi</b>	

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Parallel Session XII

Chairperson	Takuya Tsuji	Moisés Marcelino Neto
ROOM	<b>ARANJUEZ</b>	<b>ORIENTE</b>
16h25 - 16h40	<b>OC.378</b> <b>11. Fluidization</b> MIXING BEHAVIORS IN A GAS-SOLID FLUIDIZED-BED DEPENDING ON FLUIDIZATION REGIME <i>Lee J, Park H</i> <b>Jubeom Lee</b>	<b>OC.383</b> <b>20. Multiphase Flow in Heat and Mass Transfer</b> EXPERIMENTAL AND NUMERICAL STUDIES ON THE FLOW CHARACTERISTICS IN A TWO-LAYER POROUS BED PACKED WITH DIFFERENT SIZE PARTICLES <i>Li L, Xie W, Wang W, Lei X, Li H</i> <b>Wei Xie</b>
16h40 - 16h55	<b>OC.379</b> <b>11. Fluidization</b> ACCURATE PREDICTION OF LIQUID-SOLID FLUIDIZED BED POROSITY IN DRINKING WATER TREATMENT PROCESSES USING EMPIRICAL DATA-DRIVEN GENETIC PROGRAMMING MODELS <i>Kramer OJJ, El Hasadi YMF, Moel PJ, Baars ET, Padding JT, van der Hoek JP</i> <b>Onno Kramer</b>	<b>OC.384</b> <b>20. Multiphase Flow in Heat and Mass Transfer</b> INTERFACIAL INSTABILITY OF STEAM JET CONDENSATION IN WATER PIPE FLOW <i>Chu X, Yu X, Liu W, Guo L</i> <b>Qiang Xu</b>
16h55 - 17h10	<b>OC.380</b> <b>13. Granular Media</b> HYDRODYNAMIC CHARACTERIZATION OF RANDOMLY PACKED AND PERIODIC ARRANGED MODELS OF POROUS MEDIA: RECIRCULATION AND NON-FICKIAN TRANSPORT <i>Boccardo G, Crevacore G, Sethi R, Marchisio DL</i> <b>Gianluca Boccardo</b>	<b>OC.385</b> <b>20. Multiphase Flow in Heat and Mass Transfer</b> EXPERIMENTAL INVESTIGATION ON DETERIORATED HEAT TRANSFER OF CARBON DIOXIDE IN THE TRANS-CRITICAL CYCLE <i>Lei XL, Zhong J, Yang N, Li HX</i> <b>Xianliang Lei</b>
17h10 - 17h25	<b>OC.381</b> <b>11. Fluidization</b> MESO-SCALE MODELING OF FLOW REGIME TRANSITIONS OF GAS-FLUIDIZED BEDS <i>Tian Y, Wang W</i> <b>Wei Wang</b>	<b>OC.386</b> <b>20. Multiphase Flow in Heat and Mass Transfer</b> NUMERICAL PREDICTION OF THE THERMAL PERFORMANCE OF A MULTISTAGE FREE-FALLING PARTICLE RECEIVER <i>Kumar A, Lipinski W, Kim JS</i> <b>Apurv Kumar</b>
17h25 - 17h40	<b>OC.382</b> <b>11. Fluidization</b> FLOATING-SINKING MECHANISM OF OBJECTS WITH VARIOUS SHAPES IN GAS-SOLID FLUIDIZED BED <i>Saito S, Honda Y, Anzai T, Narita S, Harada S, Kato S, Oshitani J, Sakamoto Y, Tsuji T, Kajiwara H, Matsuoka K</i> <b>Shiori Saito</b>	<b>OC.387</b> <b>20. Multiphase Flow in Heat and Mass Transfer</b> COMBINED EFFECTS OF SURFACTANT AND ELECTROLYTE ON MASS TRANSFER FROM SINGLE CARBON-DIOXIDE BUBBLES IN VERTICAL PIPES <i>Hori Y, Bothe D, Hayashi K, Hosokawa S, Tomiyama A</i> <b>Yohei Hori</b>
Chairperson	Chengzhen Sun	
ROOM	<b>ALHAMBRA II</b>	
16h25 - 16h40	<b>OC.388</b> <b>05. Collision, Agglomeration and Breakup</b> AGGLOMERATE BREAKAGE AND ADHESION UPON IMPACT WITH COMPLEX-SHAPED PARTICLES <i>Tamadondar MR, Rasmuson A, Martín L, Thalberg K, Niklasson Björn I</i> <b>Mohammadreza Tamadondar</b>	
16h40 - 16h55	<b>OC.389</b> <b>05. Collision, Agglomeration and Breakup</b> SIMULATION OF FULLY RESOLVED PARTICLE-PARTICLE INTERACTIONS IN TURBULENCE WITH BEHAVIOURAL MODIFICATION <i>Mortimer LF, Fairweather M, Njobuenwu DO</i> <b>Lee Mortimer</b>	
16h55 - 17h10	<b>OC.390</b> <b>05. Collision, Agglomeration and Breakup</b> RESEARCH ON ATOMIZATION AND TRANSPORTATION OF COAGULANT USING THE MICROBUBBLE GENERATOR WITH A VENTURI TUBE <i>Ishizaki T, Fujii K, Kaneko A, Takemura F, Ike M, Abe Y</i> <b>Takahiro Ishizaki</b>	
17h10 - 17h25	<b>OC.391</b> <b>05. Collision, Agglomeration and Breakup</b> FRAGMENTATION OF A TURBULENT BUOYANT OIL JET IN WATER <i>Xue X, Katz J</i> <b>Xinzhì Xue</b>	
17h25 - 17h40	<b>OC.392</b> <b>05. Collision, Agglomeration and Breakup</b> MOLECULAR DYNAMICS SIMULATIONS OF NANO-PARTICLE COLLISION PROCESS BY CORRECTED ENERGY CONVERSION BASED CORRECTION <i>Jin HH, Zhu YQ, Fan J</i> <b>Yanqi Zhu</b>	

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Parallel Session XIII

Chairperson	Norberto Mangiavacchi	Kazuyasu Sugiyama
<b>ROOM</b>	<b>SEGOVIA I</b>	<b>SEGOVIA II</b>
10h05 - 10h20	<b>OC.393</b> 22. Particle, Bubble and Drop Dynamics HEATING OF A LIQUID DROP, SPREADING ON A DRY, SOLID SUBSTRATE AFTER A HIGH-SPEED IMPACT <i>Roisman IV, Breitenbach J, Gloerfeld M, Schmidt JB, Tropea C, Ilia Roisman</i>	<b>OC.397</b> 04. Cavitation/Nucleation NUMERICAL PREDICTION OF SMALL SCALE CAVITIES USING A COUPLED MIXTURE-BUBBLE MODEL <i>Ghahramani E, Bensow RE, Ebrahim Ghahramani</i>
10h20 - 10h35	<b>OC.394</b> 22. Particle, Bubble and Drop Dynamics RESOLVING BREAKUP IN FLASH ATOMIZATION CONDITIONS USING DNS <i>Loureiro DD, Reutzsich J, Kronenburg A, Weigand B, Vogiatzaki K, Daniel Dias Loureiro</i>	<b>OC.398</b> 04. Cavitation/Nucleation TOWARDS A NOVEL THREE PHASE FLUID MODEL BASED ON THE CONCEPT OF "EVOLVING SURFACES" FOR COUPLED SIMULATIONS OF IN NOZZLE DYNAMICS AND PRIMARY ATOMISATION. <i>McGinn P, Vogiatzaki K, Paul McGinn</i>
10h35 - 10h50	<b>OC.395</b> 22. Particle, Bubble and Drop Dynamics INVESTIGATIONS ON SINGLE AND BUBBLE SWARM RISING VELOCITIES IN SLURRY BUBBLE COLUMNS <i>Mühlbauer A, Hlawitschka MW, Bart H-J, Adam Mühlbauer</i>	<b>OC.399</b> 04. Cavitation/Nucleation DYNAMICS OF AN INERTIALLY COLLAPSING BUBBLE NEAR A LIQUID-GAS INTERFACE <i>Kim M, Beig SA, Johnsen E, Minki Kim</i>
10h50 - 11h05	<b>OC.396</b> 22. Particle, Bubble and Drop Dynamics MODELING OF PHASE INVERSION IN THREE PHASE PIPE FLOW: EFFECT OF LIQUID VISCOSITY <i>Castro J, Rodriguez O, Johann Castro</i>	<b>OC.400</b> 04. Cavitation/Nucleation NUMERICAL STUDY OF PHENOMENA RELATED TO CAVITATION AND ACCOMPANYING EROSION: THE EFFECT OF DISSOLVED GAS RELEASE <i>Iben U, Makhnov A, Petrov N, Schmidt A, Andrei Makhnov</i>
<b>Chairperson</b>	<b>Jorge Baliño</b>	<b>Stein Tore Johansen</b>
<b>ROOM</b>	<b>SEGOVIA III</b>	<b>SEGOVIA IV</b>
10h05 - 10h20	<b>OC.401</b> 14. Industrial Applications A METHODOLOGY TO SIMULATE GAS-LIQUID DISTRIBUTION THROUGH DISTRIBUTOR-TRAYS USING TWO-PHASE EULERIAN MODEL <i>Jain E, Sau M, Buwa VV, Vivek Buwa</i>	<b>OC.405</b> 19. Modelling of Multiphase Flows QUANTITATIVE VALIDATION OF LIQUID-LIQUID JET BREAK-UP VOF SIMULATIONS INCLUDING VIRTUAL MEASUREMENTS OF DROP SIZE DISTRIBUTIONS <i>Peña-Monferrer C, Sawko R, Thompson C, Kowalski A, Carlos Peña-Monferrer</i>
10h20 - 10h35	<b>OC.402</b> 14. Industrial Applications APPLICATION OF A DYNAMIC MESH APPROACH TO IMPINGING JET EROSION PREDICTION <i>Duarte CAR, Souza FJ, Carlos Antonio Ribeiro Duarte</i>	<b>OC.406</b> 19. Modelling of Multiphase Flows A COMPARISON OF ENSEMBLE- AND VOLUME-AVERAGED BUBBLY FLOW MODELS <i>Bryngelson SH, Colonius T, Spencer Bryngelson</i>
10h35 - 10h50	<b>OC.403</b> 12. Fluid-Structure Interactions TRANSIENT LIQUID FINGER PATTERN FORMATION BETWEEN A GRAVURE CYLINDER AND A PLANAR PLATE <i>Schäfer J, Brulin S, Roisman IV, Sauer HM, Dörsam E, Julian Schäfer</i>	<b>OC.407</b> 19. Modelling of Multiphase Flows SAMPLE-BASED PRIOR USING A PHENOMENOLOGICAL MODEL FOR SLUG FLOW <i>Pellegrini SP, Lazo-Vásquez D, Trigo FC, Lima RG, Baliño JL, Sergio de Paula Pellegrini</i>
10h50 - 11h05	<b>OC.404</b> 12. Fluid-Structure Interactions INERTIAL FLOW PAST FINITE-LENGTH YAWED CYLINDERS <i>Kharrouba M, Pierson J-L, Magnaudet J, Jean-Lou Pierson</i>	<b>OC.408</b> 19. Modelling of Multiphase Flows NUMERICAL INVESTIGATION OF PHASE CHANGE PHENOMENA IN GAS-ASSISTED PRIMARY ATOMIZATION USING A VOLUME OF FLUID METHOD <i>Klukas S, Giglmaier M, Bieber M, Kneer R, Adams NA, Sebastian Klukas</i>

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Parallel Session XIII

Chairperson	Olivier Masbernat	Julien Sebilleau
ROOM	<b>ARANJUEZ</b>	<b>ORIENTE</b>
09h50 - 10h05	<b>OC.409</b> <b>13. Granular Media</b> EVOLUTION OF THE RACEWAY FORMED BY A GAS LATERAL INJECTION INTO A BED OF COKE PARTICLES <i>El Azzaoui T, Masi E, Simonin O</i> <b>Taoufik El Azzaoui</b>	<b>OC.414</b> <b>20. Multiphase Flow in Heat and Mass Transfer</b> NUMERICAL INVESTIGATION OF TWO-PHASE FLOW IN PISTON COOLING GALLERIES FOR MARINE LOW SPEED DIESEL ENGINE <i>Zhao H, Ming P, Zhang W, Wang Y</i> <b>Pingjian Ming</b>
10h05 - 10h20	<b>OC.410</b> <b>11. Fluidization</b> KEY SUB-GRID QUANTITIES AFFECTING THE FILTERED DRAG FORCE <i>Jiang M, Chen X, Zhou Q</i> <b>Qiang Zhou</b>	<b>OC.415</b> <b>20. Multiphase Flow in Heat and Mass Transfer</b> ON THE INFLUENCE OF EVAPORATION ON THE MIXTURE FORMATION OF HIGH PRESSURE COMBUSTION. <i>Steinhausen C, Lamanna G, Weigand B, Stierle R, Gross J, Preusche A, Dreizler A, Sierra-Pallares J</i> <b>Christoph Steinhausen</b>
10h20 - 10h35	<b>OC.411</b> <b>11. Fluidization</b> FLUID-PARTICLE DRAG IN LOW-REYNOLDS-NUMBER BIDISPERSE SUSPENSIONS <i>Duan F, Chen X, Zhou Q</i> <b>Fan Duan</b>	<b>OC.416</b> <b>20. Multiphase Flow in Heat and Mass Transfer</b> FLOW PATTERNS AND TWO-PHASE DISTRIBUTION IN A CROSS-CORRUGATED PLATE HEAT EXCHANGER SINGLE CHANNEL WITH UNIFORM AND NON-UNIFORM GAS INJECTION ANALYZED BY IMAGE PROCESSING <i>Buscher S</i> <b>Susanne Buscher</b>
10h35 - 10h50	<b>OC.412</b> <b>11. Fluidization</b> EXPERIMENTAL AND NUMERICAL INVESTIGATION OF LAYER INVERSION IN BIDISPERSE SOLID-LIQUID FLUIDIZED BEDS IN A NARROW TUBE <i>Cúñez FD, Franklin EM</i> <b>Erick de Moraes Franklin</b>	<b>OC.417</b> <b>20. Multiphase Flow in Heat and Mass Transfer</b> REWETTING AND FILM BOILING DURING QUENCHING BY WATER JET IMPINGEMENT <i>Gomez C, van Esch B, van der Geld C, Kuerten H, Bsibi M, Liew R</i> <b>Camila Florencia Gomez</b>
10h50 - 11h05	<b>OC.413</b> <b>11. Fluidization</b> A HETEROGENEOUS DRAG MODEL FOR GAS-SOLID FLOWS WITH DIRECT NUMERICAL SIMULATION <i>Song N, Chen X, Zhou Q</i> <b>Xiao Chen</b>	<b>OC.418</b> <b>20. Multiphase Flow in Heat and Mass Transfer</b> STUDY ON CHARACTERISTICS OF INTERFACE IN GAS-NON-NEWTONIAN ANNULAR TWO-PHASE FLOW <i>Lin RN, Wang K, Wu N, Zhang YX</i> <b>Ruinan Lin</b>
Chairperson	Luca Brandt	
ROOM	<b>ALHAMBRA II</b>	
09h50 - 10h05	<b>OC.419</b> <b>15. Interfacial Flows</b> DERIVATION OF A TWO-PHASE FLOW MODEL WITH TWO-SCALE KINEMATICS AND SURFACE TENSION BY MEANS OF VARIATIONAL CALCULUS <i>Cordesse P, Di Battista R, Kokh S, Massot M</i> <b>Marc Massot</b>	
10h05 - 10h20	<b>OC.420</b> <b>15. Interfacial Flows</b> SOLID-LIQUID PHASE CHANGE SIMULATION USING LATTICE BOLTZMANN METHOD IN WELDING APPLICATIONS <i>Hu Y, Wang XZ, Liu X, He YR</i> <b>Yanwei Hu</b>	
10h20 - 10h35	<b>OC.421</b> <b>25. Turbulence in Multiphase Flows</b> TURBULENT CORE-ANNULAR FLOW WITH WATER-LUBRICATED HIGH VISCOSITY OIL IN A HORIZONTAL PIPE <i>Kim K, Choi H</i> <b>Haecheon Choi</b>	
10h35 - 10h50	<b>OC.422</b> <b>25. Turbulence in Multiphase Flows</b> TURBULENT LENGTH SCALES IN UNBOUNDED FLUIDIZATION <i>Schneiderbauer S, Fede P, Simonin O</i> <b>Simon Schneiderbauer</b>	

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Parallel Session XIV

Chairperson	Steven Ceccio	Hendrik Kuhlmann
<b>ROOM</b>	<b>SEGOVIA I</b>	<b>SEGOVIA II</b>
11h30 - 11h45	<b>OC.423</b> 22. Particle, Bubble and Drop Dynamics UNDERSTANDING OF BUBBLE DYNAMICS DURING BOTTLE EMPTYING <i>Rathia SK, Rohilla L, Das AK</i> <b>Arup Kumar Das</b>	<b>OC.428</b> 04. Cavitation/Nucleation NUMERICAL SIMULATION OF CAVITATION WITH MULTI-COMPONENT GAS <i>Ahmed A, Duret B, Reveillon J, Demoulin FX</i> <b>Aqeel Ahmed</b>
11h45 - 12h00	<b>OC.424</b> 22. Particle, Bubble and Drop Dynamics SURFACTANT-LADEN DROPLETS IN WALL BOUNDED TURBULENCE <i>Soligo G, Raccan A, Soldati A</i> <b>Giovanni Soligo</b>	<b>OC.429</b> 04. Cavitation/Nucleation SURFACE STABILITY OF A CYLINDRICAL CAVITATION BUBBLE IN A RECTILINEAR VORTEX <i>Liu Y, Wang B</i> <b>Yunqiao Liu</b>
12h00 - 12h15	<b>OC.425</b> 22. Particle, Bubble and Drop Dynamics A LAGRANGIAN STOCHASTIC MODEL FOR ROD ORIENTATION IN TURBULENT FLOWS <i>Campana L, Bossy M, Minier JP</i> <b>Lorenzo Campana</b>	<b>OC.430</b> 04. Cavitation/Nucleation A MOLECULAR DYNAMICS STUDY AND CLASSICAL NUCLEATION THEORY ANALYSIS ON HETEROGENEOUS CAVITATION <i>Gao Z, Wang B</i> <b>Zhan Gao</b>
12h15 - 12h30	<b>OC.426</b> 22. Particle, Bubble and Drop Dynamics MOTION OF A HIGH-RE LATERALLY CONFINED SINGLE BUBBLE IN A THIN-GAP CELL <i>Pavlov L, D'Angelo MV, Cachile M, Roig V, Ern P</i> <b>Lucas Pavlov</b>	<b>OC.431</b> 04. Cavitation/Nucleation EFFECT OF GAS CONTENT ON THE CAVITATING AND NON-CAVITATING PERFORMANCE OF AN AXIAL THREE-BLADED INDUCER <i>Magne T, Paridaens R, Khelladi S, Bakir F, Tomov P, Pora L</i> <b>Théodore Magne</b>
12h30 - 12h45	<b>OC.427</b> 22. Particle, Bubble and Drop Dynamics A PIV STUDY ON THE COALESCENCE OF DROPS WITH MOVING LIQUID/LIQUID INTERFACE <i>Panagiota A, Dong T</i> <b>Panagiota Angeli</b>	<b>OC.432</b> 04. Cavitation/Nucleation PRESSURE FLUCTUATIONS AT THE SITE OF CAVITATION IN A TURBULENT SHEAR LAYER <i>Agarwal K, Ram O, Katz J</i> <b>Karuna Agarwal</b>
<b>Chairperson</b>	<b>Francisco de Souza</b>	<b>Rigoberto Morales</b>
<b>ROOM</b>	<b>SEGOVIA III</b>	<b>SEGOVIA IV</b>
11h30 - 11h45	<b>OC.433</b> 14. Industrial Applications INFLUENCE OF PARTICLE TURBULENCE MODEL ON A PIPE ELBOW EROSION PREDICTION BASED ON EULER-EULER APPROACH <i>Yu W, Fede P, Climent E, Sanders S, Simonin O</i> <b>Wenchao Yu</b>	<b>OC.438</b> 19. Modelling of Multiphase Flows SLUG FLOW MODELLING THROUGH STATISTICAL MOMENTS TRANSPORT <i>Fagundes Netto JR, Gonçalves GFN, Silva Freire AP</i> <b>Gabriel Gonçalves</b>
11h45 - 12h00	<b>OC.434</b> 14. Industrial Applications CFD SIMULATION OF GUAVA JUICE SPRAY DRYING UTILIZING A CHARACTERISTIC DRYING CURVE <i>Benavides A, Cubillos A, Gomez A</i> <b>Aldo Benavides</b>	<b>OC.439</b> 19. Modelling of Multiphase Flows THREE-DIMENSIONAL DIRECT NUMERICAL SIMULATIONS FOR SPRAY FORMATION IN SURFACTANT-LADEN JETS <i>Ricardo CA, Lyes K, Assen B, Omar KM</i> <b>Cristian Ricardo Constante Amores</b>
12h00 - 12h15	<b>OC.435</b> 14. Industrial Applications STABILITY ANALYSIS OF GAS SOLIDS UNIFORMITY THROUGH PARALLEL PATHS <i>Zhang CX, Wang Y, Qian WZ, Wei F</i> <b>Chenxi Zhang</b>	<b>OC.440</b> 19. Modelling of Multiphase Flows VOLUMETRIC DISPLACEMENT EFFECTS OF THE GASEOUS PHASE ON THE EULER-LAGRANGE PREDICTION OF SPRAY ATOMIZATION <i>Pakseresht P, Apte SV</i> <b>Sourabh Apte</b>
12h15 - 12h30	<b>OC.436</b> 14. Industrial Applications NUMERICAL STUDY ON THE HEAT DISSIPATION CHARACTERISTICS OF TWO- PHASE MINICHANNEL HEAT SINKS <i>Shin HH, Kang H, Yun S, Kim Y</i> <b>Hyun Ho Shin</b>	<b>OC.441</b> 19. Modelling of Multiphase Flows INFLUENCE OF VISCOSITY AND THE INCLINATION ANGLE OF THE PIPE ON THE VOID FRACTION AND THE FLUID STRUCTURES IN AN INCLINED PIPE <i>Hewakandamby BN, Escrig-Escrig J, Davies A, Oflaz M</i> <b>Buddhika Hewakandamby</b>
12h30 - 12h45	<b>OC.437</b> 14. Industrial Applications NUMERICAL SIMULATION OF TWO- PHASE FLOW AND INTERFACIAL SPECIES TRANSFER IN STRUCTURED PACKINGS <i>Hill S, Acher T, Hoffmann R, Ferstl J, Deising D, Marschall H, Rehfeld S, Klein H</i> <b>Thomas Acher</b>	<b>OC.442</b> 24. Reactive Multiphase Flows 3D LAB SCALE FIXED BED GASIFIER SIMULATION USING TFM-TRACER APPROACH <i>Massoudi Farid M, Kriebitzsch S, Meyer B</i> <b>Massoud Massoudi Farid</b>

Thursday, May 23, 2019

Parallel Session XIV

Chairperson	Takuya Tsuji	Jordi Pallares
ROOM	<b>ARANJUEZ</b>	<b>ORIENTE</b>
11h30 - 11h45	<b>OC.443</b> 11. Fluidization A TRANSPORT-BASED RECURRENCE CFD MODEL FOR FAST FLUIDIZED BED SIMULATIONS <i>Dabbagh F, Pirker S, Schneiderbauer S, Firas Dabbagh</i>	<b>OC.448</b> 20. Multiphase Flow in Heat and Mass Transfer SETTLING-DRIVEN INSTABILITY IN TWO-COMPONENT STABLY STRATIFIED HELE-SHAW FLOWS <i>Oliveira RM, Meiburg E, Rafael Oliveira</i>
11h45 - 12h00	<b>OC.444</b> 11. Fluidization INTERPARTICLE FRICTION EFFECTS OVER THE EFFECTIVE DRAG COEFFICIENT IN DENSE GAS-SOLID FLUIDIZED FLOWS <i>Niaki SRA, Mouallem J, Milioli CC, Milioli FE, Seyyed Reza Amini Niaki</i>	<b>OC.449</b> 20. Multiphase Flow in Heat and Mass Transfer COUPLING OF A GROWTH KINETIC MODEL OF GAS HYDRATE FORMATION WITH GAS-(WATER-IN-OIL) SLUG FLOW <i>Bassani CL, Barbuto FAA, Almeida VR, Herri JM, Sum AK, Cameirão A, Morales REM, Carlos Lange Bassani</i>
12h00 - 12h15	<b>OC.445</b> 11. Fluidization EXPERIMENTAL INVESTIGATION OF THE HYDRODYNAMIC PROPERTIES OF A LIQUID-SOLID FLUIDIZED BED <i>Almeras E, Masbernat O, Risso R, Paul E, Fox R, Olivier Masbernat</i>	<b>OC.450</b> 20. Multiphase Flow in Heat and Mass Transfer HYDRODYNAMICS AND CONJUGATE MASS TRANSFER FROM A TRANSLATING DROPLET WITH 3D INTERNAL CIRCULATION <i>Rachih A, Charton S, Pedrono A, Legendre D, Climent E, Azeddine Rachih</i>
12h15 - 12h30	<b>OC.446</b> 13. Granular Media A DESCRIPTION AT THE GRAIN SCALE OF THE GROWTH OF BARCHAN DUNES <i>Alvarez CA, Franklin EM, Carlos Azael Alvarez</i>	<b>OC.451</b> 20. Multiphase Flow in Heat and Mass Transfer NUMERICAL AND EXPERIMENTAL CHARACTERIZATION OF ADDITIVE MANUFACTURED TWO-PHASE HEAT EXCHANGERS <i>Septet C, Le Metayer O, El Achkar G, Hugo JM, Cédric Septet</i>
12h30 - 12h45	<b>OC.447</b> 11. Fluidization DYNAMICS OF MIXING AND SEGREGATION OF BINARY GAS-SOLID FLOW OF PARTICLES WITH DIFFERENT DENSITY AND SHAPE <i>Parvathaneni S, Buwa VV, Vivek Buwa</i>	<b>OC.452</b> 20. Multiphase Flow in Heat and Mass Transfer ELECTROLYTE EFFECT ON BUBBLE COLUMN WITH N <sub>2</sub> AND CO <sub>2</sub> : A VISUALIZATION STUDY ON THE HYDRODYNAMICS AND MASS TRANSFER <i>Mandalahalli MM, Portela LM, Mudde RF, Manas Manohar Mandalahalli</i>
Chairperson	Luis Portela	
ROOM	<b>ALHAMBRA II</b>	
11h30 - 11h45	<b>OC.453</b> 25. Turbulence in Multiphase Flows MODELING OF BUBBLE-INDUCED FLUCTUATIONS IN TURBULENT BUBBLY UP-FLOW FROM DIRECT NUMERICAL SIMULATIONS <i>du Cluzeau A, Bois G, Toutant A, Burlot A, Alan Burlot</i>	
11h45 - 12h00	<b>OC.454</b> 25. Turbulence in Multiphase Flows ACOUSTIC EMISSION OF VENTURI TUBES IN WET GAS APPLICATIONS <i>Putten DS, Riezebos H, Froyen S, Dennis van Putten</i>	
12h00 - 12h15	<b>OC.455</b> 25. Turbulence in Multiphase Flows THE EFFECT OF TURBULENCE ON MASS TRANSFER BETWEEN INERTIAL PARTICLES IN AN EMBEDDING FLUID <i>Haugen NE, Kruger J, Karchniwy E, Lovås T, Li T, Klimanek A, Nils Erland Haugen</i>	
12h15 - 12h30	<b>OC.456</b> 25. Turbulence in Multiphase Flows DNS OF TURBULENT CHANNEL FLOW WITH PHASE TRANSITION USING AN ACTIVE SCALAR CONDENSATION MODEL <i>Bahavar P, Brückner C, Wagner C, Philipp Bahavar</i>	
12h30 - 12h45	<b>OC.457</b> 25. Turbulence in Multiphase Flows ACCELERATION OF INERTIAL PARTICLES SETTLING BY GRAVITY IN HOMOGENEOUS TURBULENCE <i>Berk T, Coletti F, Filippo Coletti</i>	



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Parallel Session XV

Chairperson	Frédéric Risso	Kosuke Hayashi
ROOM	SEGOVIA I	SEGOVIA II
15h00 - 15h15	<b>OC.458</b> <b>22. Particle, Bubble and Drop Dynamics</b> THE INTERACTION AMONG SPHERICAL BUBBLES RISING ALONG AN INCLINED FLAT WALL <i>Ogasawara T, Goda S, Nakamura D, Takahira H</i> <b>Toshiyuki Ogasawara</b>	<b>OC.462</b> <b>04. Cavitation/Nucleation</b> INVESTIGATION OF CAVITATING FLOW ON A HEATED HYDROFOIL <i>Ito M, Okajima J, Iga Y</i> <b>Junnosuke Okajima</b>
15h15 - 15h30	<b>OC.459</b> <b>22. Particle, Bubble and Drop Dynamics</b> A NUMERICAL STUDY ON DROPLET-PARTICLE COLLISION: LAMELLA CHARACTERIZATION <i>Vilela V, Souza FJ</i> <b>Vitor Vilela</b>	<b>OC.463</b> <b>04. Cavitation/Nucleation</b> EFFECT OF A TURBULENT WAKE ON FLOW CHARACTERISTICS AND CAVITATION: EXPERIMENTS ON 2D HYDROFOILS IN TANDEM <i>Pervunin KS, Timoshevskiy MV, Nichik MY</i> <b>Konstantin Pervunin</b>
15h30 - 15h45	<b>OC.460</b> <b>22. Particle, Bubble and Drop Dynamics</b> HEAT FLUX AND TEMPERATURE MEASUREMENT IN A DRY, HOT SOLID SUBSTRATE WETTED BY AN IMPACTING DROP <i>Schmidt JB, Breitenbach J, Roisman IV, Tropea C</i> <b>Johannes Benedikt Schmidt</b>	<b>OC.464</b> <b>04. Cavitation/Nucleation</b> ACOUSTIC MONITORING AND CHARACTERIZATION OF THE DYNAMICS OF CAVITATION BUBBLE CLOUDS TOWARD FEED-BACK CONTROLLED LITHOTRIPSY <i>Maeda K, Maxwell AD</i> <b>Kazuki Maeda</b>
15h45 - 16h00	<b>OC.461</b> <b>22. Particle, Bubble and Drop Dynamics</b> FORMATION, DISSOLUTION AND PROPERTIES OF SURFACE NANOBUBBLES <i>Che Z, Theodorakis PE</i> <b>Panagiotis Theodorakis</b>	<b>OC.465</b> <b>04. Cavitation/Nucleation</b> NUMERICAL INVESTIGATION AND ANALYSIS OF THE UNSTEADY SUPERCAVITY FLOWS WITH A STRONG GAS JET <i>Zhao XY, Xiang M, Zhou HC, Zhang WH</i> <b>Xiaoyu Zhao</b>
Chairperson	Eduardo Nunes dos Santos	Neima Brauner
ROOM	SEGOVIA III	SEGOVIA IV
15h00 - 15h15	<b>OC.466</b> <b>14. Industrial Applications</b> EXPERIMENTAL ANALYSIS IN WATER-OIL DISPLACEMENT TESTS IN HORIZONTAL PIPE <i>Leuchtenberger RF, Biazussi JL, Cavicchio CAM, Monte Verde W, Bannwart AC</i> <b>Roberto Fernando Leuchtenberger</b>	<b>OC.470</b> <b>19. Modelling of Multiphase Flows</b> NUMERICAL AND EXPERIMENTAL STUDY OF FORMATION AND DEVELOPMENT OF DISTURBANCE WAVES IN ANNULAR GAS-LIQUID FLOW <i>Cherdantsev AV, Fan W, Li H, Anglart H</i> <b>Andrey Cherdantsev</b>
15h15 - 15h30	<b>OC.467</b> <b>14. Industrial Applications</b> NUMERICAL AND EXPERIMENTAL ANALYSIS OF A LIQUID-GAS DISTRIBUTION SYSTEM <i>Eidt HK, Rodrigues CC, Lino LHM, Ofuchi CY, Santos PHD, Silva MJ, Neves F, Morales REM</i> <b>Henrique Eidt</b>	<b>OC.471</b> <b>19. Modelling of Multiphase Flows</b> NEAR-WELLBORE SIMULATION OF AICD COMPLETION – COMPARING CFD MODELLING WITH CONVENTIONAL RESERVOIR SIMULATION <i>Moreira RP, Girardi V, Ropelato K, Kollbotn L, Ying G, Erlandsen S</i> <b>Karolline Ropelato</b>
15h30 - 15h45	<b>OC.468</b> <b>14. Industrial Applications</b> THREE-DIMENSIONAL LOSS OF COOLANT ACCIDENT OF A NUCLEAR REACTOR USING CUPID-RV <i>Lee SJ, Yoon HY, Park IK, Lee JR, Cho YJ, Jeong JJ</i> <b>Seung-Jun Lee</b>	<b>OC.472</b> <b>19. Modelling of Multiphase Flows</b> A HYBRID APPROACH FOR MODELING SPRAYS IN CROSSFLOW <i>Fontes DH, Meira LS, Souza FJ, Canabarro LR</i> <b>Francisco de Souza</b>
15h45 - 16h00	<b>OC.469</b> <b>14. Industrial Applications</b> INTERFACE TRACKING IN PRIMARY CEMENTING OF INCLINED AND HORIZONTAL WELLS <i>Maleki I, Frigaard I</i> <b>Amir Maleki</b>	<b>OC.473</b> <b>19. Modelling of Multiphase Flows</b> LOCAL LIQUID FRACTION MEASUREMENT IN ANNULAR TWO-PHASE FLOW USING X-RAY MICROTOMOGRAPHY <i>Porombka P, Baden S, Lucas D</i> <b>Paul Porombka</b>

Thursday, May 23, 2019

Parallel Session XV

Chairperson	Gianluca Boccardo	Enio Bandarra
ROOM	<b>ARANJUEZ</b>	<b>ORIENTE</b>
14h45 - 15h00	<b>OC.474</b> <b>11. Fluidization</b> EFFECT OF INTER-PARTICLE COHESION ON GAS RESIDENCE TIME DISTRIBUTION IN FLUIDIZED BEDS WITH CATALYTIC PARTICLES <i>Kolehmainen J, Jiang Y, Ozel A, McKnight C, Wormsbecker M, Sundaresan S</i> <b>Ali Ozel</b>	<b>OC.479</b> <b>20. Multiphase Flow in Heat and Mass Transfer</b> MASS TRANSFER FROM A PURE OXYGEN TAYLOR BUBBLE IN MACRO AND MICRO-SCALE <i>Silva MCF, Campos JBLM, Araújo JDP</i> <b>Mónica Silva</b>
15h00 - 15h15	<b>OC.475</b> <b>19. Modelling of Multiphase Flows</b> CFD-PBM MODELLING OF GAS-LIQUID-SOLID THREE-PHASE FLOW IN BUBBLE COLUMNS WITH CONSIDERATION OF BUBBLE-INDUCED TURBULENCE ENERGY SPECTRUM DISTRIBUTION AND PHASE INTERACTION <i>Cai X, Yang X, Sommerfeld M, Yang J, Shi W, Guang L</i> <b>Cai Xinyue</b>	<b>OC.480</b> <b>20. Multiphase Flow in Heat and Mass Transfer</b> DROP'S SOLIDIFICATION AND MELTING ON AN INCLINED WALL. <i>Ablonet E, Legendre D, Sebilliau J, Tordjeman P</i> <b>Emeryk Ablonet</b>
15h15 - 15h30	<b>OC.476</b> <b>11. Fluidization</b> MECHANISM ELUCIDATION OF ANOMALOUS SPHERE SINKING IN PARTICLE BEDS AERATED UNDER MINIMUM FLUIDIZATION VELOCITY <i>Tsuji T, Penn A, Hattori T, Pruessmann K, Müller CR, Oshitani J</i> <b>Takuya Tsuji</b>	<b>OC.481</b> <b>20. Multiphase Flow in Heat and Mass Transfer</b> FREEZING RIVULET <i>Huerre A, Monier A, Mottin D, Josserand C, Séon T</i> <b>Axel Huerre</b>
15h30 - 15h45	<b>OC.477</b> <b>11. Fluidization</b> NONEQUILIBRIUM FEATURES OF PARTICLE VELOCITY DISTRIBUTION IN A BUBBLING FLUIDIZED BED <i>Wang H, Chen Y, Wang W</i> <b>Haifeng Wang</b>	<b>OC.482</b> <b>20. Multiphase Flow in Heat and Mass Transfer</b> THE INFLUENCE OF PARTICLE SHAPE ON THE CAPACITY OF PACKED BEDS - A NUMERICAL INVESTIGATION USING THE LATTICE BOLTZMANN METHOD <i>Jareteg A, Maggiolo D, Thunman H, Sasic S, Ström H</i> <b>Adam Jareteg</b>
15h45 - 16h00	<b>OC.478</b> <b>11. Fluidization</b> NUMERICAL AND EXPERIMENTAL STUDY OF ELECTROSTATIC CHARGE IN GAS-SOLID FLUIDIZED BEDS <i>Nasro-Allah Y, Montilla C, Ansart R, Fox RO, Simonin O</i> <b>Rodney Fox</b>	<b>OC.483</b> <b>20. Multiphase Flow in Heat and Mass Transfer</b> SCALE OUT STUDIES OF SMALL TWO-PHASE FLOW CHANNELS. <i>GarciaDiego-Ortega E, Tsaoulidis D, Angeli P</i> <b>Dimitrios Tsaoulidis</b>
Chairperson	Pascal Fede	
ROOM	<b>ALHAMBRA II</b>	
14h45 - 15h00	<b>OC.484</b> <b>25. Turbulence in Multiphase Flows</b> PREFERENTIAL CONCENTRATION OF DENSE SUB-KOLMOGOROV PARTICLES IN ACTIVE-GRID-GENERATED TURBULENCE <i>Obligado M, Calmant T, Palma N, Aliseda A, Cartellier A</i> <b>Martin Obligado</b>	
15h00 - 15h15	<b>OC.485</b> <b>25. Turbulence in Multiphase Flows</b> MEASUREMENTS OF FLUCTUATING TEMPERATURE AND RADIATION TRANSMISSION IN A RADIATIVELY-HEATED PARTICLE-LADEN TURBULENT DUCT FLOW <i>Kim J, Banko AJ, Villafañe L</i> <b>Ji Hoon Kim</b>	
15h15 - 15h30	<b>OC.486</b> <b>25. Turbulence in Multiphase Flows</b> COMBINED EFFECTS OF SOLUBLE SURFACTANT AND VISCOELASTICITY ON PRESSURE-DRIVEN TURBULENT BUBBLY CHANNEL FLOWS <i>Izbassarov D, Muradoglu M, Costa P, Ahmed Z, Tammisola O</i> <b>Outi Tammisola</b>	
15h30 - 15h45	<b>OC.487</b> <b>25. Turbulence in Multiphase Flows</b> MODELLING OF SUB-GRID TURBULENCE MODULATION EFFECTS IN DILUTE SPRAYS <i>Tretola G, Fistler M, Vogiatzaki K, Navarro-Martinez S, Oevermann M</i> <b>Marco Fistler</b>	
15h45 - 16h00	<b>OC.487a</b> <b>25. Turbulence in Multiphase Flows</b> DEVELOPMENT OF THE NUMERICAL SCHEME FOR INTERMITTENCY REGION EVOLUTION MODEL <i>Waclawczyk T</i> <b>Tomasz Waclawczyk</b>	

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Parallel Session XVI

Chairperson	Atila Freire	Chao Sun
<b>ROOM</b>	<b>SEGOVIA I</b>	<b>SEGOVIA II</b>
16h25 - 16h40	<b>OC.488</b> 22. Particle, Bubble and Drop Dynamics STOCHASTIC MODEL FOR THE SMALL BUBBLE DYNAMIC IN HOMOGENEOUS ISOTROPIC TURBULENT FLOWS IN LES <i>Zhang Z, Zamansky R, Legendre D</i> <b>Zhentong Zhang</b>	<b>OC.493</b> 04. Cavitation/Nucleation EFFECT OF RECTIFIED DIFFUSION ON THE GROWTH OF CAVITATION BUBBLE CLOUDS IN A FOCUSED ULTRASOUND FIELD <i>Okita K</i> <b>Kohei Okita</b>
16h40 - 16h55	<b>OC.489</b> 22. Particle, Bubble and Drop Dynamics NUMERICAL STUDY OF INCLUSION DEPOSITION IN A FULLY DEVELOPED TURBULENT BOUNDARY LAYER OF LIQUID METAL ON A LADLE WALL <i>Joishi M, Kroll-Rabotin JS, Bellot JP</i> <b>Manoj Joishi</b>	<b>OC.494</b> 04. Cavitation/Nucleation NUMERICAL SIMULATION OF UNSTEADY CAVITATION ON A MARINE PROPELLER IN NON-UNIFORM INFLOW <i>Gong ZX, Lu CJ, Wang JS</i> <b>Zhaoxin Gong</b>
16h55 - 17h10	<b>OC.490</b> 22. Particle, Bubble and Drop Dynamics JOURNEY OF LIQUID DROPS INSIDE WATER: FROM DROP FORMATION TO EQUILIBRIUM <i>Kumar T, Misra S, Gunda NSK, Mitra S</i> <b>Sushanta Mitra</b>	<b>OC.495</b> 04. Cavitation/Nucleation SHAPE RECONSTRUCTION OF AN UNSTEADY WING TIP-VORTEX CAVITY <i>Nanda S, Westerweel J, van Terwisga T, Elsinga GE</i> <b>Swaraj Nanda</b>
17h10 - 17h25	<b>OC.491</b> 22. Particle, Bubble and Drop Dynamics 3D BOUNDARY ELEMENT SIMULATIONS OF BUBBLE SHAPE OSCILLATIONS AND SELF-PROPULSION <i>Pityuk Yu, Gumerov N, Abramova O, Zarafutdinov I</i> <b>Yulia A. Pityuk</b>	<b>OC.496</b> 04. Cavitation/Nucleation A ROBUST NUMERICAL METHODOLOGY FOR STEADY-STATE CAVITATING FLOWS <i>Gupta VK, Khaware A, Srikanth K, Sanyal J</i> <b>Vinay Kumar Gupta</b>
17h25 - 17h40	<b>OC.492</b> 22. Particle, Bubble and Drop Dynamics PLANAR MIGRATION OF TWO DROPS IN A THERMAL GRADIENT <i>Sun R, Qin Y, Zhang ZY</i> <b>Ren Sun</b>	<b>OC.497</b> 04. Cavitation/Nucleation NUMERICAL SIMULATION OF ASPHERICAL COLLAPSES OF VAPOR BUBBLES CONTAINING NON-CONDENSABLE GAS <i>Trummer T, Schmidt SJ, Adams NA</i> <b>Theresa Trummer</b>
<b>Chairperson</b>	<b>Francisco Julio do Nascimento</b>	<b>Akio Tomiyama</b>
<b>ROOM</b>	<b>SEGOVIA III</b>	<b>SEGOVIA IV</b>
16h25 - 16h40	<b>OC.498</b> 14. Industrial Applications NUMERICAL AND EXPERIMENTAL STUDY OF GAS-LIQUID FLOWS IN A CENTRIFUGAL ROTOR <i>Stel H, Ofuchi EM, Chiva S, Morales REM</i> <b>Henrique Stel</b>	<b>OC.503</b> 19. Modelling of Multiphase Flows VALIDATION STRATEGY OF REDUCED-ORDER TWO-FLUID FLOW MODELS BASED ON A HIERARCHY OF DIRECT NUMERICAL SIMULATIONS <i>Cordesse P, Murrone A, Mênard T, Massot M</i> <b>Pierre Cordesse</b>
16h40 - 16h55	<b>OC.499</b> 14. Industrial Applications EXPERIMENTS ON HORIZONTAL THREE-PHASE SOLID-LIQUID-GAS SLUG FLOW <i>Alves RF, Cavalli SCP, Bassani CL, Rosas LMM, Marcelino Neto MA, Sum AK, Morales REM</i> <b>Rafael Fabricio Alves</b>	<b>OC.504</b> 19. Modelling of Multiphase Flows FILTERED TWO-FLUID SIMULATION OF A PYROCLASTIC DENSITY CURRENT: APPLICABILITY TO DENSE AND DILUTE FLOWS <i>Suto H, Ota K, Nakao K, Hattori Y</i> <b>Hitoshi Suto</b>
16h55 - 17h10	<b>OC.500</b> 14. Industrial Applications ENHANCING PERFORMANCE OF SELECTIVE CATALYTIC REDUCTION (SCR) SYSTEM BY COMBINING AMMONIA DIRECT INJECTION SYSTEM (ADIS) AND THE ISOSWIRLTM TECHNOLOGY <i>Tabikh AM, Spagnolo L, Zhou J, Rafidi N, Czarnecki L</i> <b>Ali Tabikh</b>	<b>OC.505</b> 19. Modelling of Multiphase Flows ANALYTICAL MODELING OF MULTIDIRECTIONAL ENTRAINMENT IN THREE-PHASE GAS-LIQUID-LIQUID FLOWS WITH OILFIELD APPLICATIONS IN HIGH GAS RATE WELLBORES AND FLOWLINES <i>Nagoo AS</i> <b>Anand Nagoo</b>
17h10 - 17h25	<b>OC.501</b> 14. Industrial Applications NUMERICAL SIMULATION OF BUBBLE-PARTICLE INTERACTION IN AN INCLUSION REMOVAL PROCESS <i>Moon H, Kim J, Shim J, You D</i> <b>Donghyun You</b>	<b>OC.506</b> 19. Modelling of Multiphase Flows NUMERICAL INVESTIGATION OF AN AIR-WATER FLOW THROUGH A 90° BEND PRECEDED BY A U-BEND IN 6" PIPING <i>De Moerloose L, Degroote J</i> <b>Laurent De Moerloose</b>
17h25 - 17h40	<b>OC.502</b> 14. Industrial Applications OIL LUBRICATION SIMULATION USING SHARP INTERFACE CAPTURING METHOD AND ADAPTATIVE MESH REFINEMENT <i>Cailler M, Mercier R, Moureau V</i> <b>Mélody Cailler</b>	<b>OC.507</b> 19. Modelling of Multiphase Flows CFD-PBM MODELLING OF BUBBLY FLOW IN BUBBLE COLUMN REACTORS COUPLED WITH BUBBLE-INDUCED TURBULENCE : II. A MODIFIED BUBBLE COALESCENCE MODEL <i>Shi W, Yang X, Sommerfeld M, Yang J, Cai X, Li G</i> <b>Weibin Shi</b>

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Parallel Session XVI

Chairperson	Jorge Baliño	Christos Markides
ROOM	<b>ARANJUEZ</b>	<b>ORIENTE</b>
16h25 - 16h40	<b>OC.508</b> <b>15. Interfacial Flows</b> CORE-FILM-WALL INTERACTIONS IN ANNULAR PIPE-FLOW: A NUMERICAL STUDY USING SPACE-TIME CORRELATIONS <i>Oliveira GH, Portela LM</i> <b>Galileu Oliveira</b>	<b>OC.513</b> <b>20. Multiphase Flow in Heat and Mass Transfer</b> MODELING THE FLUCTUATING FLUID VELOCITY-TEMPERATURE CORRELATION INDUCED BY THE PRESENCE OF THE PARTICLES IN A DENSE REGIME USING PARTICLE-RESOLVED NUMERICAL SIMULATION <i>Thiam El, Masi E, Climent E, Vincent S, Simonin O</i> <b>Enrica Masi</b>
16h40 - 16h55	<b>OC.509</b> <b>15. Interfacial Flows</b> VISUALIZATION OF MARANGONI PHENOMENA DURING DROPLET FORMATION <i>Heine J, Wecker C, Kenig E, Bart H-J</i> <b>Jens Stefan Heine</b>	<b>OC.514</b> <b>20. Multiphase Flow in Heat and Mass Transfer</b> TRANSIENT SPRAY COOLING OF A HOT SURFACE: EXPERIMENTAL AND THEORETICAL STUDY <i>Tenzer FM, Roisman IV, Tropea C</i> <b>Fabian Tenzer</b>
16h55 - 17h10	<b>OC.510</b> <b>15. Interfacial Flows</b> CAPILLARY DRIVEN WATER IMBIBITION INTO A GRANULAR ICE LAYER: AN EXPERIMENTAL STUDY <i>Schreimb M, Reitter LM, Roisman IV, Tropea C</i> <b>Markus Schreimb</b>	<b>OC.515</b> <b>20. Multiphase Flow in Heat and Mass Transfer</b> CFD STUDY OF SINGLE AND MULTIPHASE FLOW IN A TUBE FILLED WITH OPEN-CELL FOAMS <i>Araújo JD, Miranda J, Campos JM</i> <b>José Daniel Araújo</b>
17h10 - 17h25	<b>OC.511</b> <b>15. Interfacial Flows</b> INTERFACIAL STRUCTURE OF UPWARD GAS-LIQUID ANNULAR FLOW IN AN INCLINED PIPE <i>Fershtman A, Lukas R, Prasser H-M, Barnea D, Shemer L</i> <b>Adam Fershtman</b>	<b>OC.516</b> <b>20. Multiphase Flow in Heat and Mass Transfer</b> MODELLING THE HEATING AND EVAPORATION OF SUSPENDED KEROSENE DROPLETS. <i>Poulton L, Rybdylova O, Sazhin S</i> <b>Luke Poulton</b>
17h25 - 17h40	<b>OC.512</b> <b>15. Interfacial Flows</b> ULTRASONIC ATOMIZATION—ITS STRUCTURE AND DYNAMICS ASSOCIATED WITH LIQUID FOUNTAIN OF CORRUGATED BEADS <i>Satomi K, Mori Y, Tsuchiya K</i> <b>Keisuke Satomi</b>	
Chairperson	José Pontes	
ROOM	<b>ALHAMBRA II</b>	
16h25 - 16h40	<b>OC.518</b> <b>25. Turbulence in Multiphase Flows</b> A DUAL SCALE LARGE EDDY SIMULATION MODEL FOR TWO-PHASE INTERFACES IN TURBULENT FLOWS <i>Herrmann M, Kedelty D</i> <b>Marcus Herrmann</b>	
16h40 - 16h55	<b>OC.519</b> <b>25. Turbulence in Multiphase Flows</b> ULTRASONIC ACTUATION ON THE SPRAY PRODUCED BY A COAXIAL TWO-FLUID ATOMIZER: MODIFIED INTERFACIAL INSTABILITIES AND DROPLET TRANSPORT <i>Huck PD, Machicoane N, Osuna-Orozco R, Maxwell A, Aliseda A</i> <b>Peter Huck</b>	
16h55 - 17h10	<b>OC.520</b> <b>25. Turbulence in Multiphase Flows</b> DRAG REDUCTION VIA SUPERHYDROPHOBIC SURFACE IN TURBULENT BOUNDARY LAYER WITH PLASTRON FILM <i>Wang LW, Pan C, Cai CJ</i> <b>Chong Pan</b>	
17h10 - 17h25	<b>OC.521</b> <b>25. Turbulence in Multiphase Flows</b> ASSESSMENT OF TWO PARTICLE DISPERSION MODELS FOR LARGE EDDY SIMULATIONS OF CONFINED SWIRLING FLOWS <i>Eckel G, Rochner M, Le Clercq P, Aigner M</i> <b>Georg Eckel</b>	
17h25 - 17h40	<b>OC.522</b> <b>25. Turbulence in Multiphase Flows</b> THE LARGE-SCALE FLUID MOTIONS CARRYING PARTICLES IN TURBULENT CHANNEL FLOW <i>Mito Y</i> <b>Yoichi Mito</b>	

Friday, May 24, 2019

Parallel Session XVII

Chairperson	Michael Schlüter	Jorge Baliño
ROOM	SEGOVIA I	SEGOVIA II
10h05 - 10h20	<b>OC.523</b> <b>22. Particle, Bubble and Drop Dynamics</b> A SINGLE BUBBLE RISING IN STAGNANT LIQUID NEAR A VERTICAL WIRE-MESH <i>Chen YY, Tu CX, Bao FB, Yin ZQ, Gao XY</i> <b>Chengxu Tu</b>	<b>OC.527</b> <b>04. Cavitation/Nucleation</b> EXPERIMENTAL STUDY OF CAVITATION EROSION AROUND A SURFACE-MOUNTED SEMI-CIRCULAR CYLINDER <i>Jahangir S, Ghahramani E, Neuhauser M, Bourgeois S, Bensow RE, Poelma C</i> <b>Saad Jahangir</b>
10h20 - 10h35	<b>OC.524</b> <b>22. Particle, Bubble and Drop Dynamics</b> EXPERIMENTAL AND NUMERICAL INVESTIGATION OF IMPULSE INJECTION OF GAS INTO THE LIQUID COLUMN <i>Alekseev M, Lezhnin S, Lobanov P, Pribaturin N, Svetonozov A, Usov E</i> <b>Pavel Lobanov</b>	<b>OC.528</b> <b>18. Mixing</b> STUDY OF THE MIXING OF SOLIDS IN NON-NEWTONIAN MEDIA WITH PIV <i>Meridiano G, Weheliye W, Mazzei L, Angeli P</i> <b>Giovanni Meridiano</b>
10h35 - 10h50	<b>OC.525</b> <b>22. Particle, Bubble and Drop Dynamics</b> NUMERICAL STUDY OF THE SHAPE-OSCILLATION DYNAMICS OF EMULSION DROPLETS <i>Piedfert A, Lalanne B, Masbernat O, Risso F</i> <b>Benjamin Lalanne</b>	<b>OC.529</b> <b>18. Mixing</b> FLOW PATTERNS AND FLOW PATTERN MAP FOR LIQUID-LIQUID FLOW IN A HORIZONTAL SERPENTINE CHANNEL <i>Der O, Olaitan K, Bertola V</i> <b>Volfango Bertola</b>
10h50 - 11h05	<b>OC.526</b> <b>22. Particle, Bubble and Drop Dynamics</b> THREE-DIMENSIONAL DIRECT NUMERICAL SIMULATION OF AERODYNAMIC FRAGMENTATION IN THE RAYLEIGH-TAYLOR PIERCING REGIME <i>Kaiser JWJ, Winter JM, Adami S, Adams NA</i> <b>Jakob Kaiser</b>	
Chairperson	Stein Tore Johansen	
ROOM	SEGOVIA III	SEGOVIA IV
10h05 - 10h20	<b>OC.530</b> <b>14. Industrial Applications</b> CAPACITIVE SENSOR NETWORK FOR OIL AND GAS FLOW MONITORING IN AN INDUSTRIAL TEST FACILITY <i>Santos EN, Reginaldo NS, Bertoldi D, Reis DC, Fonseca R, Morales REM, Silva MJ</i> <b>Eduardo Nunes dos Santos</b>	
10h20 - 10h35	<b>OC.531</b> <b>14. Industrial Applications</b> CFD STUDY OF WET GAS FLOW THROUGH ORIFICE PLATE METERS <i>Weise J, Baliño JL, Paladino EE</i> <b>Josiane Weise</b>	
10h35 - 10h50	<b>OC.532</b> <b>14. Industrial Applications</b> PREDICTION OF SEPARATION PERFORMANCE OF THE GAS-LIQUID SEPARATOR: EXPERIMENT AND VALIDATION <i>Irikura M, Maekawa M, Heijckers C, Witteveen H, Tomiyama A</i> <b>Munenori Maekawa</b>	
10h50 - 11h05	<b>OC.533</b> <b>14. Industrial Applications</b> EFFECTS OF INJECTION ANGLE ON BUBBLE DISTRIBUTION IN GAS-LIFT INJECTORS <i>Guerra LAO, Loureiro JBR, Silva Freire AP</i> <b>Juliana Loureiro</b>	

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Parallel Session XVII

Chairperson	Gherhardt Ribatski	Francisco Julio do Nascimento
ROOM	<b>ARANJUEZ</b>	<b>ORIENTE</b>
09h50 - 10h05	<b>OC.534</b> <b>15. Interfacial Flows</b> INVESTIGATION ON TURBULENCE-INTERFACE INTERACTIONS IN LIQUID-LIQUID FLOWS USING ADM-VOF METHOD AND TIME-RESOLVED PIV <i>Saeedipour M, Puttinger S, Doppelhammer N, Pirker S, Stefan Puttinger</i>	<b>OC.539</b> <b>20. Multiphase Flow in Heat and Mass Transfer</b> STUDY OF SOLID WALL ABLATION BY A LIQUID JET -- APPLICATIONS TO ASTRID'S CORE-CATCHER <i>Lecoanet A, Rimbert N, Gradeck M, Payot F, Nicolas Rimbert</i>
10h05 - 10h20	<b>OC.535</b> <b>15. Interfacial Flows</b> FALLING LIQUID FILMS IN CONFINED CHANNELS <i>Lavalle G, Li Y, Mergui S, Grenier N, Dietze GF, Nicolas Grenier</i>	<b>OC.541</b> <b>20. Multiphase Flow in Heat and Mass Transfer</b> NUMERICAL ANALYSIS OF PHASE CHANGE FROM LIQUID-LIQUID CONTACT PLANE <i>Kumar R, Das AK, Arup Kumar Das</i>
10h20 - 10h35	<b>OC.536</b> <b>15. Interfacial Flows</b> GAS ENTRAINMENT CRITERIA AT THE FREE SURFACE OF A SODIUM FAST REACTOR MOCK-UP <i>Guenadou D, Aubert P, Descamps JP, David Guenadou</i>	
10h35 - 10h50	<b>OC.537</b> <b>15. Interfacial Flows</b> WETTING OF A HORIZONTAL TUBE BUNDLE BY FALLING FILM FLOW - INFLUENCE OF TUBE SPACING AND LIQUID FEEDER HEIGHT <i>Flessner C, Friebe M, Hennrich C, Christian Fleßner</i>	
10h50 - 11h05	<b>OC.538</b> <b>15. Interfacial Flows</b> AN EXPERIMENTAL STUDY ON GRAVITY-DRIVEN FILM: INFLUENCE OF VISCOSITY, WALL SURFACE TREATMENT AND TRANSITORY STATE <i>Thoraval B, Lallement J, Berthoumieu P, Laurent C, Gajan P, Thoraval Baptiste</i>	
Chairperson	Cem Sarica	
ROOM	<b>ALHAMBRA II</b>	
09h50 - 10h05	<b>OC.542</b> <b>25. Turbulence in Multiphase Flows</b> TURBULENT DRAG REDUCTION BY COMPLIANT SURFACE TENSION ACTIVE WALL LAYER <i>Zonta F, Roccon A, Soldati A, Alessio Roccon</i>	
10h05 - 10h20	<b>OC.543</b> <b>19. Modelling of Multiphase Flows</b> DNS SIMULATION AND ANALYSIS OF PERIODIC PLANAR LIQUID SHEET ASSISTED ATOMIZATION <i>Averseng M, Zuzio D, Boutsikakis A, Estivalèzes JL, Matthias Averseng</i>	
10h20 - 10h35	<b>OC.544</b> <b>25. Turbulence in Multiphase Flows</b> CFD SIMULATION OF A GAS-LIQUID CYLINDRICAL CYCLONE (GLCC®) <i>Serrano JDJ, Vargas L, Pereyra E, Muñoz F, Ratkovich N, Lizzet Vargas Valencia</i>	
10h35 - 11h50	<b>OC.546</b> <b>19. Modelling of Multiphase Flows</b> CFD PREDICTION OF VOC EMISSION FROM A SOLID MATERIAL IN AN EXPERIMENTAL CHAMBER <i>Caron F, Guichard R, Robert L, Verrièle M, Thevenet F, Florent Caron</i>	

Friday, May 24, 2019

Parallel Session XVIII

Chairperson	Gustavo Rabelo dos Anjos	Igor de Paula
ROOM	<b>SEGOVIA I</b>	<b>SEGOVIA II</b>
11h30 - 11h45	<b>OC.547</b> <b>22. Particle, Bubble and Drop Dynamics</b> A NUMERICAL METHOD TO STUDY THE DEFORMATION AND DRAG OF A DROPLET IN A FLOWING GAS <i>Wang ZB, Wang JX, Guo LJ, Xu Q</i> <b>Qiang Xu</b>	<b>OC.551</b> <b>16. Instabilities</b> STUDY OF WAVE INSTABILITY AT THE INTERFACE OF THE STRATIFIED TWO-PHASE FLOW (WATER-OIL) IN A CHANNEL <i>Garcia DE, Nieckele AO, Rodriguez D, Paula IB</i> <b>Angela Nieckele</b>
11h45 - 12h00	<b>OC.548</b> <b>22. Particle, Bubble and Drop Dynamics</b> PARTICLE-PARTICLE COLLISIONS IN FLUIDS WITH AN EFFECTIVE MASS DENSITY GRADIENT <i>Dellaert RA, Meulenbroek AM, Wubs JR, Tajfirooz S, Kuerten JGM, Darhuber AA, Zeegers JCH</i> <b>Rik Dellaert</b>	<b>OC.552</b> <b>16. Instabilities</b> ESTABLISHING LINK BETWEEN PRIMARY AND SECONDARY BREAKUP PROCESSES IN COAXIAL AIR-WATER JETS. <i>Kumar A, Sahu S</i> <b>Abhijeet Kumar</b>
12h00 - 12h15	<b>OC.549</b> <b>22. Particle, Bubble and Drop Dynamics</b> FORCES AND TORQUES EXERTED BY A STOKES CORNER FLOW ON A MOVING SPHERE <i>des Boscs P-E, Romanò F, Kuhlmann HC</i> <b>Pierre-Emmanuel des Boscs</b>	<b>OC.553</b> <b>16. Instabilities</b> NUMERICAL CHARACTERIZATION OF PSEUDO-BOILING FLUIDS AT SUPERCRITICAL CONDITIONS <i>Barney R, Nourgaliev R, Delplanque JP, McCallen R</i> <b>Rebecca Barney</b>
12h15 - 12h30	<b>OC.550</b> <b>22. Particle, Bubble and Drop Dynamics</b> ADAPTED GEOMETRICAL VARIABLES FOR STATISTICAL MODELING OF GAS-LIQUID INTERFACE <i>Pichard T, Di Battista R, Laurent F, Massot M</i> <b>Teddy Pichard</b>	<b>OC.554</b> <b>16. Instabilities</b> DIRECT NUMERICAL SIMULATION OF THE RICHTMYER-MESHKOV INSTABILITY AT A V-SHAPED AIR-HELIUM INTERFACE <i>Winter JM, Adami S, Adams NA</i> <b>Josef Winter</b>
12h30 - 12h45		<b>OC.555</b> <b>16. Instabilities</b> CHARACTERIZATION OF LINEAR INTERFACIAL WAVES IN A TURBULENT GAS-LIQUID PIPE FLOW USING PARTICLE IMAGE VELOCIMETRY <i>Paula IB, Azevedo LFA, Farias PSC</i> <b>Paula Farias</b>
Chairperson	Dalton Bertoldi	Juliana Loureiro
ROOM	<b>SEGOVIA III</b>	<b>SEGOVIA IV</b>
11h30 - 11h45	<b>OC.556</b> <b>14. Industrial Applications</b> A THREE PHASE CONJUGATED HEAT TRANSFER SOLVER APPLIED TO ADDITIVE MANUFACTURING <i>Mark A, Göhl J, Ingelsten S, Johnson T, Edelvik F</i> <b>Andreas Mark</b>	<b>OC.561</b> <b>19. Modelling of Multiphase Flows</b> NUMERICAL INVESTIGATIONS OF THE EFFECTS OF IRREGULAR PARTICLE SHAPES ON THE PACKING STRUCTURE AND FLUID FLOW IN A FIXED BED <i>Srinivas SR, Kriebitzsch S, Meyer B</i> <b>Shreyas Rohit Srinivas</b>
11h45 - 12h00	<b>OC.557</b> <b>14. Industrial Applications</b> FLOW OF HIGHLY NETWORKED CELLULOSE FIBERS NEAR A SLOT IN A MINI-CHANNEL <i>Schmid T, Radl S</i> <b>Thomas Schmid</b>	<b>OC.562</b> <b>19. Modelling of Multiphase Flows</b> STABILITY SOLVER FOR AIR-WATER FLOWS IN COMPLEX CONDITIONS <i>Azevedo GR, Baliño JL</i> <b>Gabriel Romualdo de Azevedo</b>
12h00 - 12h15	<b>OC.558</b> <b>14. Industrial Applications</b> A LOCAL MULTIPHASE APPROACH FOR THE MODELLING OF NUCLEAR SEVERE ACCIDENT USING CFD METHODS <i>Haquet JF, Boulin AN, Piluso PA, Antoni MI, Semenov SE</i> <b>Jean-François Haquet</b>	<b>OC.563</b> <b>19. Modelling of Multiphase Flows</b> COMPARISON OF DROPLET ENTRAINMENT MODELS IN 1D NUMERICAL SIMULATIONS OF VERTICAL ANNULAR TWO-PHASE FLOW <i>Siqueira JGC, Nieckele AO, Carneiro JNE</i> <b>João Gabriel Carvalho de Siqueira</b>
12h15 - 12h30	<b>OC.559</b> <b>14. Industrial Applications</b> EXPERIMENTAL AND NUMERICAL STUDY OF STRATIFIED OIL-WATER FLOW <i>Bochio G, Teixeira AFA, Rodriguez OMH</i> <b>Gustavo Bochio</b>	<b>OC.564</b> <b>19. Modelling of Multiphase Flows</b> SHOCK ANALYSIS FOR TWO-PHASE CO2 FLOWS IN A CONVERGING-DIVERGING NOZZLE <i>Fang Y, Poncet S, Nesreddine H, Bartosiewicz Y</i> <b>Yu Fang</b>
12h30 - 12h45	<b>OC.560</b> <b>14. Industrial Applications</b> THREE DIMENSIONAL NUMERICAL SIMULATION OF TWO-PHASE FLOW IN INJECTION PROCESS OF HALON 1301 GAS EXTINGUISHING AGENT <i>Fan WP, Yang YZ, Gao Y, Wang DP</i> <b>W.P. Fan</b>	<b>OC.565</b> <b>19. Modelling of Multiphase Flows</b> MODELING OF GAS-LIQUID NATURAL SEPARATION IN INCLINED ANNULAR DUCTS <i>Vieira SC, Castro MS, Bannwart AC</i> <b>Marcelo Souza de Castro</b>

Friday, May 24, 2019

Parallel Session XVIII

Chairperson	Buddhika Hewakandamby	Olivier Masbernat
ROOM	<b>ARANJUEZ</b>	<b>ORIENTE</b>
11h30 - 11h45	<b>OC.566</b> <b>15. Interfacial Flows</b> ENTRAINMENT DURING DROPLET CROSSING AT OIL - WATER INTERFACE <i>Ram O, Katz J</i> <b>Joseph Katz</b>	<b>OC.571</b> <b>18. Mixing</b> EXPERIMENTAL STUDY ON INTERFACIAL PHENOMENON BETWEEN EXTRA HEAVY OIL AND SUPERCRITICAL WATER <i>Zhao QY, Guo LJ, Chen L, Huang ZJ, Jin H, Wang YC</i> <b>Qiuyang Zhao</b>
11h45 - 12h00	<b>OC.567</b> <b>15. Interfacial Flows</b> PREDICTION OF ANNULAR FLOW PARAMETERS IN A VARIETY OF GEOMETRIES AND ORIENTATIONS IN AIR-WATER SYSTEMS <i>Vasques J, Hewakandamby B, Hann D</i> <b>João Vasques</b>	<b>OC.573</b> <b>18. Mixing</b> MIXING ELECTROKINETICS IN A NANOCANNEL DUE TO CHARGED CORRUGATED SURFACES <i>Nayak AK, Weigand B</i> <b>Ameeya kumar Nayak</b>
12h00 - 12h15	<b>OC.568</b> <b>15. Interfacial Flows</b> ANALYSIS OF INTERFACE EFFECTS IN TWO-PHASE FLOWS USING DIRECT NUMERICAL SIMULATIONS OF A TEMPORAL JET CONFIGURATION <i>Bode M, Raman V, Devriendt R, Le Chenadec V, Pitsch H</i> <b>Mathis Bode</b>	<b>OC.574</b> <b>18. Mixing</b> DEVELOPMENT OF A METHOD TO DETECT AND QUANTIFY TIME-DEPENDENT YIELD STRESS BUILD-UP IN MINERAL SLURRIES <i>Ulrich D, Shokrollahzadeh A, Machado MB, Martin T, Sanders S, Kresta SM</i> <b>Marcio Bezerra Machado</b>
12h15 - 12h30	<b>OC.569</b> <b>15. Interfacial Flows</b> ANALYSIS OF CONTACT LINE BEHAVIOUR DURING LIQUID BRIDGE STRETCHING AND ITS EFFECT ON RESIDUAL VOLUMES AFTER BREAK-UP <i>Bruhin S, Roisman IV, Tropea C, Sauer HM, Schäfer J, Dörsam E</i> <b>Sebastian Bruhin</b>	<b>OC.575</b> <b>18. Mixing</b> VISUALIZATION OF MIXING PERFORMANCE AND MEASUREMENT OF POWER INPUT IN AERATED STIRRED TANK REACTORS - COMPARISON OF LABORATORY AND INDUSTRIAL SCALE <i>Fitschen J, Rosseburg A, Wucherpfennig T, Wutz J, Schlüter M</i> <b>Jürgen Fitschen</b>
12h30 - 12h45	<b>OC.570</b> <b>15. Interfacial Flows</b> EXPERIMENTAL QUANTIFICATION OF WETTING PATTERNS <i>Feldmann J, Roisman IV, Tropea C</i> <b>Johannes Feldmann</b>	
Chairperson	Filippo Coletti	
ROOM	<b>ALHAMBRA II</b>	
11h30 - 11h45	<b>OC.576</b> <b>25. Turbulence in Multiphase Flows</b> TOWARDS A GENERAL STRUCTURAL SUBGRID MODELLING APPROACH FOR TURBULENT MULTIPHASE FLOWS <i>Saeedipour M, Vincent S, Pirker S, Schneiderbauer S</i> <b>Mahdi Saeedipour</b>	
11h45 - 12h00	<b>OC.577</b> <b>25. Turbulence in Multiphase Flows</b> EFFECTS OF LOCAL PARTICLE STOKES NUMBER ON THE WALL NORMAL VELOCITY FLUCTUATIONS IN A SUPERSONIC BOUNDARY LAYER <i>Xiao W, Jin T, Wang Z, Luo K, Chen S, Fan J</i> <b>Wei Xiao</b>	
12h15 - 12h30	<b>OC.579</b> <b>25. Turbulence in Multiphase Flows</b> MICROBUBBLE CLOUDS FORMATION IN TURBULENT BOUNDARY LAYERS AND ITS GREAT CONTRIBUTION TO FRICTIONAL DRAG REDUCTION <i>Murai Y, Saito D, Park HJ, Tasaka Y</i> <b>Yuichi Murai</b>	





**PT.01**

**Numerical simulation of bubble formation and acoustic characteristics with different gas flow rates**

Song SL<sup>1</sup>, Chong DT<sup>1</sup>, Zhao QB<sup>1</sup>, Chen WX<sup>1</sup>, Yan JJ<sup>1</sup> - <sup>1</sup>State Key Laboratory of Multiphase Flow in Power Engineering - Xi'an Jiaotong University

**PT.02**

**PTV Study of Turbulent Bubbly Flow downstream of a Two-Dimensional Wall Mounted Obstacle**

Zhang J<sup>1</sup>, Gabillet C<sup>1</sup>, Billard J-Y<sup>1</sup> - <sup>1</sup>The French Naval Academy Research Institute, IRENav - Mechanical and Energetical Engineering in Naval Environment

**PT.03**

**Comparing the Accuracy of Nucleate Boiling Correlations Using a Platinum Wire with Ethanol, n-Pentane, and n-Heptane**

Oliveira AV<sup>1</sup>, Netto ATS<sup>2</sup>, Santos RG<sup>2</sup> - <sup>1</sup>Université de Lorraine - Laboratoire d'Énergétique et de Mécanique Théorique et Appliquée, <sup>2</sup>Universidade Estadual de Campinas - Departamento de Energia

**PT.04**

**Quantifying annular liquid film parameters from high-speed visualization of upward and downward flow condensation**

Ferreira J<sup>1</sup>, Barbosa J<sup>1</sup> - <sup>1</sup>Federal University of Santa Catarina - Mechanical Engineering

**PT.05**

**Experimental study on heat transfer characteristics of circulatory flash evaporation of concentrated NaCl solution**

Wang Y<sup>1</sup>, Yang Q<sup>1</sup>, Yan J<sup>1</sup> - <sup>1</sup>Xi'an Jiaotong University - State Key Laboratory of Multiphase Flow in Power Engineering

**PT.06**

**Evaluation of two-phase flow patterns of HFO-1234yf refrigerant in a horizontal flat tube**

Peixoto MCL<sup>1</sup>, Mendes RP<sup>1</sup>, Machado L<sup>1</sup>, Pabon JG<sup>2</sup> - <sup>1</sup>UFMG - Mechanical Engineering, <sup>2</sup>UNIFEI - Mechanical Engineering

**PT.07**

**INTENSIFICATION OF POOL BOILING HEAT TRANSFER BY USING MICRO-FIN SURFACES**

Kiyomura IS<sup>1</sup>, Souza RR<sup>1</sup>, Cardoso EM<sup>1</sup> - <sup>1</sup>UNESP - Mechanical Engineering

**PT.08**

**Nucleation rate and droplet growth of carbon dioxide inside a supersonic nozzle implemented in open-source software**

Machado TF, Silva LFLR, Santos FP

**PT.09**

**An improved multi-dimensional THINC scheme based on direct time integration**

Zhao HY<sup>1</sup>, Ming PJ<sup>1</sup>, Zhang WP<sup>1</sup>, Wang YH<sup>1</sup> - <sup>1</sup>Harbin Engineering University - College of Power and Energy Engineering

**PT.10**

**Bubble behavior in gas-solid bubbling fluidized beds based on EMMS model: comparison of 2D, Q2D and 3D simulation**

Wang H<sup>1</sup>, Lu Y<sup>2</sup> - <sup>1</sup>Xi'an Jiaotong University - State Key Laboratory of Multiphase Flow in Power Engineering, <sup>2</sup>Xi'an Jiaotong University - State Key Laboratory of Multiphase Flow in Power Engineering

**PT.11**

**Interface-tracking simulations of individual drops rising/falling in quiescent liquid**

Charin AHLM<sup>1</sup>, Silva LFLR<sup>2</sup>, Lage PLC<sup>1</sup> - <sup>1</sup>Universidade Federal do Rio de Janeiro - Programa de Engenharia Química, COPPE, <sup>2</sup>Universidade Federal do Rio de Janeiro - Escola de Química

**PT.12**

**Non-Intrusive Measurements of Free Liquid Films**

Gyurkovich A<sup>1</sup>, Mehring C<sup>1</sup> - <sup>1</sup>University of Stuttgart - Institute of Mechanical Process Engineering

**PT.13**

**Experimental investigation on severe slugging mitigation applying quasi-planar helical pipe device**

Yao T, WU Q, Xu Q, Liu Z, Guo L

**PT.14**

**Gaussian Mixture Model for Pattern Recognition in Vertical Two-Phase Flow**

Ambrosio JS<sup>1</sup>, Pipa DR<sup>1</sup>, Morales REM<sup>1</sup>, Silva MJ<sup>1</sup> - <sup>1</sup>UTFPR - NUEM

**PT.15**

**Experimental study of emulsion phase residence time near the wall in a supercritical water fluidized bed**

Zhang TN<sup>1</sup>, Lu YJ<sup>1</sup> - <sup>1</sup>Xi'an Jiaotong University - State Key Laboratory of Multiphase Flow in Power Engineering

**PT.16**

**Influence of solids inventory and gas velocity on the power spectral density pattern obtained from pressure fluctuation signals in a circulating fluidized bed riser**

Schaffka FTS<sup>1</sup>, Behainne JJR<sup>2</sup>, Parise MR<sup>3</sup>, Castilho GJ<sup>1</sup> - <sup>1</sup>University of Campinas (UNICAMP) - School of Chemical Engineering, <sup>2</sup>Federal University of Technology - Mechanical Engineering Department, <sup>3</sup>Federal University of Technology - Chemical Engineering Department

**PT.17**

**Experimental study of the effect of bubble-pore matching relationship on foam transport in porous media**

Wang Y<sup>1</sup>, Yue XA<sup>1</sup>, Liu K<sup>1</sup>, Zhang B<sup>1</sup>, Ling Q<sup>1</sup>, Mou YF<sup>1</sup> - <sup>1</sup>China University of Petroleum-Beijing - Key Laboratory of Petroleum Engineering, College of Petroleum Engineering

**PT.18**

**Surface Wetting in Multiphase Pipe-Flow**

Bentzon JR<sup>1</sup>, Vural A<sup>1</sup>, Feilberg KL<sup>2</sup>, Walther JH<sup>1,3</sup> - <sup>1</sup>Technical University of Denmark - Mechanical Engineering, <sup>2</sup>Technical University of Denmark - The Danish Hydrocarbon Research and Technology Centre, <sup>3</sup>ETH, Zürich - Computational Science and Engineering Laboratory

**PT.19**

**Experimental analysis of slug flow pressure drop in corrugated pipes**

Santana ALB<sup>1</sup>, Marcelino Neto MA<sup>1</sup>, Morales REM<sup>1</sup> - <sup>1</sup>Federal University Technology of Parana (UTFPR) - Multiphase Flow Research Center NUEM

**PT.20**

**Analysis of the effect of annular gas-liquid flows in encapsulated electrical submersible pumps**

Pontes GC<sup>1</sup>, Monte Verde W<sup>2</sup>, Castro MS<sup>1</sup>, Biazussi JL<sup>2</sup>, Bannwart AC<sup>1</sup> - <sup>1</sup>University of Campinas - UNICAMP - Department of Energy, Faculty of Mechanical Engineering, <sup>2</sup>University of Campinas - UNICAMP - Center for Petroleum Studies

**PT.21**

**Experimental Study of Gas-Liquid Separation in Inclined Annular Ducts Simulating an Electrical Submersible Pump Skid**  
Custodio DAS<sup>1</sup>, Monte Verde W<sup>2</sup>, Biazussi JL<sup>2</sup>, Castro MS<sup>1</sup>, Bannwart AC<sup>1</sup> - <sup>1</sup>University of Campinas – UNICAMP - Department of Energy, School of Mechanical Engineering, <sup>2</sup>University of Campinas – UNICAMP - Center for Petroleum Studies

**PT.22**

**Experimental study of interface wave characteristics of gas-liquid flow in horizontal pipe at high pressure**  
Wang Y<sup>1</sup>, Chang Y<sup>1</sup>, Liu Z<sup>1</sup>, Zhao X<sup>1</sup>, Guo L<sup>1</sup> - <sup>1</sup>Xi'an Jiaotong University - State Key Laboratory of Multiphase Flow in Power Engineering

**PT.23**

**Transient gas/liquid two-phase flow in a pipeline-riser system after the change of inlet flow rates**  
Zou S<sup>1,2</sup>, Liu W<sup>1</sup>, Guo L<sup>1</sup> - <sup>1</sup>Xi'an Jiaotong University - State Key Laboratory of Multiphase Flow in Power Engineering, <sup>2</sup>Wuhan Second Ship Design and Research Institute

**PT.24**

**Morphology-Dependent Optical Properties of Gold Nanorods**  
Xing LZ<sup>1</sup>, Chen B<sup>1</sup>, Li D<sup>1</sup>, Wu WJ<sup>1</sup> - <sup>1</sup>Xi'an Jiaotong University - State Key Laboratory of Multiphase Flow in Power Engineering

**PT.25**

**Microfluidic particle focusing in viscoelastic flow**  
Fan LL<sup>1</sup>, Tao YY<sup>2</sup>, Wu X<sup>2</sup>, Yan Q<sup>2</sup>, Zhe J<sup>3</sup>, Zhao L<sup>2</sup> - <sup>1</sup>Xi'an Jiaotong University - School of Mechanical Engineering, <sup>2</sup>Xi'an Jiaotong University - State Key Laboratory of Multiphase Flow in Power Engineering, <sup>3</sup>The University of Akron - Department of Mechanical Engineering

**PT.26**

**Numerical Simulation for Generation Mechanism of Fine Bubble by High-Speed Stirring**  
Matsukuma Y<sup>1</sup>, Uchiyama H<sup>1</sup> - <sup>1</sup>Fukuoka University - Chemical Engineering

**PT.27**

**Optimization of the internal hydraulic diameters of microchannel fin and flat tube evaporators**  
Souza FS<sup>1</sup>, Colmanetti AR<sup>1</sup>, Tibiriçá CB<sup>1</sup> - <sup>1</sup>EESC-USP - Mechanical Engineering

**PT.28**

**The real-time characteristics of mixing behavior in binary fluidized bed**  
Wan Z<sup>1</sup>, Lu YJ<sup>1</sup> - <sup>1</sup>Xi'an Jiaotong University - State Key Laboratory of Multiphase Flow in Power Engineering

**PT.29**

**Solid-liquid flow in Stirred Tanks: Euler-Euler / RANS Modeling**  
Shi P, Rzehak R

**PT.30**

**Determination of drift-flux parameters for viscous oil-water horizontal flow**  
Ruschel RH<sup>1</sup>, Cely MH<sup>2</sup>, Rodriguez OMH<sup>3</sup>, Castro MS<sup>1</sup> - <sup>1</sup>UNICAMP - CEPETRO/ALFA, <sup>2</sup>UNICAMP/USP - CEPETRO/INDUSTRIAL MULTIPHASE FLOW LABORATORY, <sup>3</sup>USP - INDUSTRIAL MULTIPHASE FLOW LABORATORY

**PT.32**

**CFD modeling of rice husk gasification in an entrained flow gasifier: Effects of operating conditions**  
Gao XY<sup>1</sup>, Yin ZQ<sup>1</sup>, Li XF<sup>1</sup>, Ding ZY<sup>1</sup> - <sup>1</sup>China Jiliang University - Institute College of Metrology and Measurement Engineering

**PT.33**

**Uncertainty propagation as a tool for assessment of a multiphase point model**  
Strand A<sup>1,2</sup>, Smith IE<sup>3</sup>, Hellevik LR<sup>2</sup>, Steinsland I<sup>1</sup> - <sup>1</sup>NTNU - Mathematical Sciences, <sup>2</sup>NTNU - Structural Engineering, <sup>3</sup>SINTEF - Multiphase Flow Laboratory

**PT.34**

**On the discussion of a surface liquid film approach for a CFD coupling algorithm for gas-liquid annular flows**  
Anjos RP<sup>1</sup>, Klein TS<sup>1</sup>, Silva LFLR<sup>1</sup> - <sup>1</sup>Federal University of Rio de Janeiro - Chemical and Biochemical Process Engineering (EPQB)

**PT.36**

**Experimental study of the hydrate formation in shut-in and restart condition in two and three phase system**  
Kakitani C<sup>1</sup>, Marques DC<sup>1</sup>, Marcelino Neto MA<sup>1</sup>, Morales REM<sup>1</sup>, Sum AK<sup>2</sup> - <sup>1</sup>Federal University of Technology of Parana - Multiphase Flow Research Center (NUEM), <sup>2</sup>Colorado School of Mines - Hydrates Energy Innovation Lab

**PT.37**

**An extension of porousMultiphaseFoam open-source toolbox for compressible multiphase and multicomponent flow in porous media.**  
Santos FP<sup>1</sup> - <sup>1</sup>Federal University of Rio de Janeiro - Chemical Engineering Department



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