MONDAY September 8th, 2014

09:00	**Plenary 1** Chair: O. Haidn, Saal 1a **Wave dynamics and phase interfaces** *Nikolaus A. Adams, Xiangyu Hu, Steffen J. Schmidt | Technische Universität München, Germany*		
	Room 1a	**Room 1b**	**Room Conrad Röntgen**
	Modelling and Simulation of Atomization and Spray Processes 1 *Chair: B. Weigand*	**Spray Combustion and Gas Turbines 1** *Chair: L. Achelis*	**Powder Production and Metal Sprays 1** *Chair: B. Weigand*
09:50	On the role of Cavitation in Marine Large Diesel injector: Numerical investigation of nozzle orifices eccentricity *C. Habchi, N. Gillet, A. Velghe, J. Bohbot, A. Schmid, B. von Rotz, K. Herrmann* *IFP Energies nouvelles, France*	Characterizing spray flame-vortex interactions: a combustion diagram for extinction and reignition *B. Franzelli, A. Vié, M. Ihme* *Stanford University, United States*	Simulation of PVP-water Sprays Under Various Injection Conditions *H. Grosshans, S.R. Gopireddy, E. Gutheil* *University of Heidelberg, Germany*
10:15	Influence of Geometric Nozzle and Process Conditions on the Spray Behavior in a Double Swirl Atomizer *L. Buss, F. Meierhofer, L. Achelis, M.J. Hodapp, D. Noriler, H.F. Meier, U. Fritsching* *Foundation Institute of Materials Science, Germany*	Comparison of spray characteristics of light and heavy fuel oil for a swirl pressure nozzle *A. Tabatabaei, E. Movahednejad* *MAPNA Turbine Engineering & Manufacturing Co., Iran*	Modification of internal granule structure via spray-drying parameters *S. Eckhard, M. Fries* *Fraunhofer Institute for Ceramic Technologies and Systems, Germany*
10:40	Toward general purpose LES model of injection and atomization *N. Hecht* *UMR6614 CORIA, France*	Comparison of diesel spray combustion in a free volume and in porous combustion reactor *M. Weclas, J. Cypris* *University of Applied Sciences Nuremberg, Germany*	Production of substructured fat particles and their application in novel food fat systems *P. Guillet, B.N. Dubey, E.J. Windhab* *ETH Zürich, Switzerland*
11:05	**Coffee**		
	Modelling and Simulation of Atomization and Spray Processes 2 *Chair: H. Grosshans*	**Spray Combustion and Gas Turbines 2** *Chair: J. Domnick*	**Powder Production and Metal Sprays 2** *Chair: N. Urbanetz*
11:25	Investigation of vapor bubble growth under flash boiling conditions *D. Dietzel, S. Fechter, C.-D. Munz, A. Kronenburg* *Universität Stuttgart, Germany*	Derivation and Evaluation of a Multi-regime Spray Flamelet Model *H. Olguin, E. Gutheil* *University of Heidelberg, Germany*	Spray drying of tailor-made mannitol carrier particles for dry powder inhalers *M. Mönckedieck, J. Kamplade, P. Fakner, H. Steckel, P. Walzel,* *Christian-Albrecht University Kiel, Germany*
11:50	Drop impact experiment as a model experiment to investigate the role of oil-in-water emulsions in controlling the drop size distribution of an agricultural spray *C. Vernay, L. Ramos, J.-P. Douzals, R. Goyal, J.-C. Castaing, C. Ligoure* *Université Montpellier 2 et CNRS, France*	Flat Fan Nozzle Characterisation (Droplet Size Measurements) for Online Compressor Washing Applications *R. Agbadede, A. Jasuja, P. Pilidis, U. Igie, I. Allison, R. Hameed, P. Lambart* *Cranfield University, United Kingdom*	Spray formation in a gas assisted high pressure spray process *J.-M. Loth, M. Petermann* *Ruhr-Universität Bochum, Germany*
12:15	Simulation of a gas blasted liquid sheet on GPU architecture *S. Rajesh Reddy, R. Banerjee* *IIT Hyderabad, India*	Effect of primary instability of a high viscous liquid jet on the spray quality generated by a twin fluid atomizer *A. Sänger, T. Jakobs, N. Djordjevic, T. Kolb* *Karlsruhe Institute of Technology (KIT), Germany*	Modeling and Simulation of Pressure-Gas-Atomization Process for Metal Powder Production *X.-G. Li, U. Fritsching* *University of Bremen, Germany*
12:40	A Phenomenological Model for Particle Clustering *Y. Hardalupas, K. Resvanis, A. Taylor* *Imperial College London, United Kingdom*		A Kelvin-Helmholtz model to describe primary fragmentation of liquid metal jets during fuel coolant interaction *S. Castrillon Escobar, R. Meignen, N. Rimbert, M. Gradeck,* *Université de Lorraine, France*
13:05	**Lunch**		
	Modelling and Simulation of Atomization and Spray Processes 3 *Chair: A. Cavaliere*	**Spray Combustion and Gas Turbines 3** *Chair: C. Habchi*	**Spray Diagnostics / Measurements 1** *Chair: N. Urbanetz*
14:00	Transported Joint PDF Modeling of Poly-disperse Turbulent Acetone Spray Flows *Y. Hu, E. Gutheil* *University of Heidelberg, Germany*	Commissioning of the Optical Swirling Spray Injector: A new Test Section for Investigations of Atomization Inside an Aero Engine Burner at Realistic Operating Conditions *S. Freitag, T. Behrendt* *German Aero Space Center , Germany*	Visualization of low-level swirl effects in fuel injection sprays *D. Sedarsky, M. Rahm, Z. Falgout, M. Linne* *Chalmers University, Sweden*
14:25	Numerical investigation of the liquid core length in sprays with fully turbulent boundary condition *Z. Pavlovic, S. Scheidl, W. Edelbauer, B. Basara, G. Brenn, S. Jakirlic* *AVL-AST, Advanced Simulation Technologies, Slovenia*	A Study of Gasoline Multi-Hole Injector Spray Dynamics Using Large Eddy Simulation *N. Iafrate, J.-B. Michel, B. Cuenot* *IFP Energies nouvelles, France*	An analysis of image evaluation procedures for measurements of diesel spray characteristics *C. Du, S. Andersson, M. Andersson* *Chalmers University of Technology, Sweden*
14:50	Numerical investigation of shear-driven liquid film primary breakup assisted by coaxial gas streams *C. Bilger, R.S. Cant* *University of Cambridge, United Kingdom*	Simulation of combusting spray generated by swirl atomizer *M.J. Hodapp, L. Buss, D. Noriler, H.F. Meier, F. Meierhofer, L. Achelis, U. Fritsching* *Foundation Institute of Materials Science, Germany*	Experiential Investigation of Hollow Cone Injector's Spray Characteristics using PDPA for Diesel-Ethanol Blend *A. Garai, S. Mondal, S. Sen, A. Mukhopadhyay* *Jadavpur University, India*
15:15	Interaction between liquid pulses during intermittent injection *A. Nygård, L. Prahl Wittberg, M. Altimira, L. Fuchs* *KTH, Sweden*		Near-Nozzle Dynamics of High-Pressure Diesel Sprays *J. Wang* *Argonne National Laboratory, United States*
15:40	**Coffee**		
	Modelling and Simulation of Atomization and Spray Processes 4 *Chair: E. Gutheil*	**Spray Combustion and Gas Turbines 4** *Chair: M. Linne*	**Spray Diagnostics / Measurements 2** *Chair: F. Dinkelacker*
16:00	Investigation of the Influence of Atmospheric Pressure on the Jet Breakup of a Shear Thinning Liquid with DNS *M. Ertl, C. Zhu, B. Weigand* *Universität Stuttgart, Germany*	The Role of Fuel-Spray Oscillations in the Formation of Multiple Flames *D. Katoshevski, B. Greenberg* *Ben-Gurion University of the Negev, Israel*	Influence of Measurement Uncertainty on Droplet Size Distributions and Droplet Size calculated by Statistical Extinction Method *F. Dannigkeit, N. Schwarz, S. Ripperger* *TU Kaiserslautern, Germany*
16:25	On the spray painting processes using steam atomizing gun *Q. Ye, O. Tiedje, B. Shen* *Fraunhofer-Institut für Produktionstechnik und Automatisierung IPA, Germany*	CFD and experimental studies of Heavy Fuel Oil sprays for marine engine applications *P. Kontoulis, L. Kaiktsis, B. von Rotz, A. Schmid, G. Weisser, K. Herrmann, K. Boulouchos* *National Technical University of Athens, Greece*	Measurement of Evaporation Constant of Mono-disperse Fuel Droplets Using One-dimensional Rainbow Technique *J. Promvongsa, B. Fungtammasan, P. Vallikul, G. Grehan, S. Saengkaew* *King Mongkut's University of Technology Thonburi, Thailand*
16:50	Parametric Study of Direct Contact Steam Condensation on Droplets in a Horizontal Channel *A. Farnoud, M.K. Aktas* *TOBB University of Economics and Technology, Turkey*	Explosive Area Classification for Involatile Liquid Fuels: A Replacement to Flashpoint Categorisation *A. Giles, K. Mouzakitis, P. Kay, P. Bowen, K. Yokoi* *Cardiff University, United Kingdom*	Quantitative comparison of fuel spray images obtained using ultrafast coherent and incoherent double-pulsed illumination *H. Purwar, K. Lounnaci, S. Idlahcen, C. Rozé, J.-B. Blaisot, T. Ménard* *Université et INSA de Rouen, France*
17:15	**Poster Session** *Foyer*		
18:30	**Ilass-Europe AGM** *Saal 1a*		

TUESDAY September 9th, 2014

08:30	**Plenary 2** Chair: U. Fritsching, Saal 1a **Dispensing of Complex Fluids: The Map of Misery** *Christian Clasen, Ljiljana Palangetic, Jan Vermant | KU Leuven, Belgium*		
	Room 1a	**Room 1b**	**Room Conrad Röntgen**
	Sprays in Engines and Automotives 1 *Chair: P. Leick*	**Spray Diagnostics / Measurements 3** *Chair: C. Tropea*	**Spray Combustion and Gas Turbines 5** *Chair: M. Santini*
09:20	Evidence of Transcritical Mixing Layers at ECN Spray A Conditions *Z. Zachary Falgout, M. Rahm, D. Sedarsky, Z. Wang, M. Linne* *Chalmers University, Sweden*	Quantitative and Qualitative Comparison of Internally Mixed Twin-Fluid Atomizers *M. Mlkvik, M. Zaremba, M. Malý, J. Jedelský, M. Jícha* *Brno University of Technology, Czech Republic*	Characterization of an outwardly propagating flame in an aerosol under reduced gravity condition *R. Thimothée, C. Chauveau, F. Halter* *CNRS, ICARE, France*
09:45	CFD simulation of the emerging liquid sheet from a high-pressure swirl injector at increasing injection pressures *C. Chasos* *Frederick University, Cyprus*	Near Nozzle Structure of Gas Centred Swirl Co-axial (GCSC) Injector with different orientation of air swirl *K.S. Siddharth* *Indian Institute of Technology Madras,India*	Observation of spray interference and combustion process of gas direct injection engine with double-needle type injector *T. Fujino, S. Kawakita, W. Kondo, Y. Nishijima, D. Tsuru, H. Tajima* *Denso Corporation, Japan*
10:10	Analysis of the injection of urea-water-solution for automotive SCR systems: spray/exhaust-gas-interaction *J. Mutyal, R. Faltsi, M. Braun* *ANSYS, India*	Characterization of Spray Nozzles for Quenching of Metal Components *T. Bucquet, S. Sander, U. Fritsching* *IWT Bremen, Germany*	Primary atomization of prefilming airblast nozzles: Experimental studies using advanced image processing techniques *S. Gepperth, E. Bärow, R. Koch, H.-J. Bauer* *Karlsruher Institut für Technologie (KIT), Germany*
10:35	**Coffee**		
	Sprays in Engines and Automotives 2 *Chair: E. Sher*	**Spray Diagnostics / Measurements 4** *Chair: M. Weclas*	**Droplet Evaporation, Solidification and Condensation 1** *Chair: N. Roth*
10:55	Transmitted light microscopy of primary breakup for engine-relevant ambient densities *M.A. Reddemann, V. Kirsch, R. Kneer* *RWTH Aachen University, Germany*	Direct imaging of primary atomisation in the near-nozzle region of diesel sprays *V. Stetsyuk, C. Crua, R. Pearson, M. Gold* *University of Brighton, United Kingdom*	The Collaborative Research Center SFB-TRR 75: Droplet Dynamics under Extreme Boundary Conditions *B. Weigand, A. Birkefeld, C. Tropea* *Universität Stuttgart, Germany*
11:20	Kinetic modelling of Diesel fuel droplet heating and evaporation: effects of the approximation of fuel composition *S. Sazhin, I. Shishkova, M. Al Qubeissi* *University of Brighton, United Kingdom*	Three-Dimensional Spray Analysis using Light Field Imaging *B. Scharfman, A. Techet* *Massachusetts Institute of Technology,* *United States*	Modelling of Structure Evolution in Spray Dried Particles using the Meshfree SPH Method *W. Säckel, M. Hirschler, M. Huber, P. Kunz, U. Nieke* *Universität Stuttgart, Germany*
11:45	Effect of fuel flexibility on cavitation in injector-like flows *M. Altimira, L. Fuchs* *Lund University, Sweden*	Experimental Analysis and Semicontinuous Simulation of Multicomponent Fuel Droplet Evaporation at Low Temperatures *S. Lehmann, E. Rivard, S. Lorenz, W. Mühlbauer, D. Brüggemann* *Universität Bayreuth, Germany*	Evaporating droplets: comparisons between DNS and modelling *B. Duret, M. Al Qubeissi, S. Sazhin, C. Crua* *University of Brighton, United Kingdom*
12:10	Influence of biodiesel and diesel fuel blends on the injection rate and spray injection under cold conditions *P. Tinprabath, C. Hespel, S. Chanchaona, F. Foucher* *Université d'Orleans, France*	Comparison of direct optical and IPI methods in real flow measurements *A. Sukhanovskii, V. Batalov, R. Stepanov* *Institute of Continuous Media Mechanics UB RAS, Russian Federation*	
12:35	**Lunch**		
	Sprays in Engines and Automotives 3 *Chair: K. Nishida*	**Spray Diagnostics / Measurements 5** *Chair: R. Kneer*	**Droplet Evaporation, Solidification and Condensation 2** *Chair: I. Roisman*
13:30	Diesel spray interaction with a thin porous ring and its contribution tomixture homogenization in IC engine *M. Weclas, J. Cypris, P. Weigand* *University of Applied Sciences Nuremberg, Germany*	Spray Measurements of a Binary Mixture Under Homogeneous Flash Boiling *M. Levy, Y. Levy, E. Sher* *Technion – Israel Institute of Technology, Israel*	Oblique water entry of rigid spheres *D.M. Kintea, T. Hauk,* *J. Breitenbach, I.V. Roisman, C. Tropea* *Universität Darmstadt, Germany*
13:55	The investigation of air entrainment and development of diesel-like gas jet under engine condition *D. Tsuru, R. Ishibashi, H. Tajima* *Kyushu University, Japan*	Droplet size and concentration mapping in sprays using SLIPI based techniques *Y.N. Mishra, E. Kristensson, M. Aldén, E. Berrocal* *Lund University, Sweden*	The influence of non-ideal thermodynamics on the evaporation of alcohol/alkane-tracer sprays *P. Keller, C. Hasse* *TU Bergakademie Freiberg, Germany*
14:20	Experimental Study on In-Cross-Flow Spray Injected by Hole-Type Nozzle for DISI Engine *R. Kishi, M. Guo, B. Shi, Y. Ogata, K. Nishida, Y. Wada* *Hiroshima University, Japan*	Breakup and dispersion of glowing sprays *D. van der Voort, W. van de Water, N. Dam, H. Clercx, G. van Heijst* *Eindhoven University of Technology, Netherlands*	Modelling of non-isothermal spray flows using a combined viscous vortex method and the Fully Lagrangian Approach *O. Rybdylova, S. Sazhin, A. Osiptsov, S. Begg, M. Heikal* *University of Brighton, United Kingdom*
14:45	A New Spray Penetration Model Developed for Large Engine Diesel Injectors *I. Najar, C. Fink* *Rostock University, Germany*	An enhanced ILIDS-method for 3-dimensional, 3-component droplet sizing *C. Adler* *Institut franco-allemand de recherches de Saint-Louis, AMS, France*	Simulation of compressible multi-phase flows at extreme ambient conditions using a Discontinuous Galerkin Method *S. Fechter, C. Zeiler, C.-D. Munz, C. Rohde* *University of Stuttgart, Germany*
15:10	**Coffee**		
	Sprays in Engines and Automotives 4 *Chair: J. Helie*	**Modelling and Simulation of Atomization and Spray Processes 5** *Chair: M. Gorokhovski*	**Droplet Evaporation, Solidification and Condensation 3** *Chair: M. Marengo*
15:30	A further examination of fuel dribble from single hole diesel nozzles *A. Swantek, D. Duke, F.Z. Tilocco, N. Sovis,* *C. Powell, A. Kastengren* *Argonne National Lab, United States*	Expansion and Reformation of Conical Jets *P. Walzel, J. Scislowski, G. Schaldach* *Technical University of Dortmund, Germany*	Measurement of a polymeric time scale with oscillating drops *G. Plohl, G. Brenn* *Graz University of Technology, Austria*
15:55	Effects of ambient pressure and liquid properties on atomization characteristics of airblast atomizer *K. Kato, S. Suzuki, T. Kudo, S. Kato, M. Itoh, M. Uchida,* *A. Hayakawa, H. Kobayashi* *Tohoku University, Japan*	Large Eddy Simulation of Cavitation and Atomization in Injector Flows using OpenFOAM *N. LU, F.-X. Demoulin, J. Reveillon, J. Chesnel* *Université de Rouen , France*	Temperature Measurements of Evaporating Biofuel Droplets *J. Palmer, F. Mathieu, M. Reddemann, R. Kneer* *RWTH Aachen University, Germany*
16:20	Effects of ambient pressure and temperature on penetration of a high compressed gas jet in high density conditions *R. Ishibashi, D. Tsuru, H. Tajima* *Kyushu university, Japan*	LES Modeling and Simulation of Spray Characteristics of Bio-butanol *K. Nishad, A. Sadiki* *Technische Universität Darmstadt, Germany*	Multi-dimensional quasi-discrete model for the investigation of heating and evaporation of Diesel fuel droplets *M. Al Qubeissi, S. Sazhin, G. de Sercey, C. Crua* *University of Brighton, United Kingdom*
19:00	**Riverboat Banquett** *Martini Anleger, Bremen City*		

WEDNESDAY September 10th, 2014

08:30	**Plenary 3** Chair: M. Gavaises, Saal 1a **Advances in ballistic imaging for spray formation dynamics** *Mark Linne | Chalmers University, Gothenburg, Sweden*		
	Room 1a	**Room 1b**	**Room Conrad Röntgen**
	Atomization Techniques 1 *Chair: A. Lozano*	**Jet and Droplet Breakup 1** *Chair: R. Ragucci*	**Droplet Impact and Interaction 1** *Chair: G. Brenn*
09:20	Breakup of initially non-axisymmetric threads under the influence of crosswind flow *J. Kamplade, A. Küsters, T. Mack, P. Walzel* *Technical University of Dortmund, Germany*	The flow inside and around a falling droplet under various Capillary numbers *K. Bergeles, Y. Hardalupas, A.M. Taylor* *Imperial College London, United Kingdom*	Droplet impact, spreading and coating a small-section target *M. Arogeti, E. Sher* *Technion-Israel Institute of Technology, Israel*
09:45	Impact factors on superheated atomization *A. Günther, K.-E. Wirth* *Universität Erlangen, Germany*	Electric field-assisted manipulation of satellite droplets during jet breakup *B. Vajdi Hokmabad, S. Faraji, T. Ghaznavi Dizajyekan, B. Sadri, E. Esmaeilzadeh* *University of Alberta, Canada*	Dynamics of droplets of biological fluids over enhanced surfaces with and without electrostatic actuation *J. Ramos, A. Moita, M. Prazeres, A. Moreira* *University of Lisbon, Portugal*
10:10	Ultrasonic atomization of mixtures and suspensions *A. Lozano, J.A. Garcia, A. Ranz, F. Barreras, J.L. Santolaya* *CSIC, LIFTEC, Spain*	*Modeling of droplet dynamics in Bag breakup regime for use in Lagrangian droplet tracking codes* *A. Badie Sichani, M.D. Emami* *Isfahan University of Technology, Islamic Republic of Iran*	Impact of Droplet Clustering on Heat Transfer in Spray Processes *A. Lampa, U. Fritsching* *University of Bremen, Germany*
10:35	**Coffee**		
	Atomization Techniques 2 *Chair: J. Jedelsky*	**Jet and Droplet Breakup 2** *Chair: C. Dumouchel*	**Droplet Impact and Interaction 2** *Chair: J. Bellettre*
10:55	Pneumatic nozzle for spraying of viscous liquids and foam *A. Stratmann, P. Walzel* *Technical University of Dortmund, Germany*	Analytical Criterion for Droplet Breakup in Turbulent Flow Fields *O. Diemuodeke, I. Sher* *Cranfield University, United Kingdom*	Investigation of the coefficient of restitution of spheres impacting on a water film *T. Hauk, M. von der Gruen, I. Roisman, C. Tropea* *Airbus Group, Germany*
11:20	Spray formation by centrifugal flow instability *G. Brenn, P. Salman* *Graz University of Technology, Austria*	A New Look at the Droplet Deformation and Breakup Model *N. Rimbert, M. Gradeck, A. Hajjar, S. Castrillon-Escobar, R. Meignen* *Université de Lorraine, France*	Simulation of a freefalling single droplet using the VOF model coupled with an interface compression algorithm *I. Malgarinos, N. Nikolopoulos, M. Gavaises* *City University London, United Kingdom*
11:45	Polymerization in a spray - a pre-reaction within the nozzle to boost the reaction in the spray *M. Tewes, U.A. Peuker* *TU Bergakademie Freiberg, Germany*	Measurement and modeling of droplet mean diameter generated by a high-speed rotary bell cup atomizer *M. Shirota, T. Haneda, T. Inamura, M. Daikoku, T. Katayama, T. Soma, Y. Saito, Y. Matsushita, H. Aoki* *University of Twente, Netherlands*	Flat fan nozzle droplet momentum distribution for descaling oil wells *A.J. Abbas, G. Nasr, A. Nourian* *University of Salford, United Kingdom*
12:10	Modelling of spray formation in a pressure swirl atomiser for aircraft engines *S. Tonini, C. Galbiati, A. Belotti, G. Cossali* *Università degli studi di Bergamo, Italy*	Rotary atomizers - influence of centrifugal forces and a gas flow on 3D movement of a liquid jet and its break-up *T. Kalmbach, M. Hauber, M. Liebing, M. Piesche* *University of Stuttgart, Germany*	Effect of the vapor flow on the drop spreading in the Leidenfrost regime *G. Castanet, O. Caballina, F. Lemoine* *Université de Lorraine, France*
12:35	**Lunch**		
	Internal Nozzle Flow *Chair: H. Tajima*	**Jet and Droplet Breakup 3** *Chair: Q. Ye*	**Droplet Impact and Interaction 3** *Chair: A. Moita*
13:30	Effects of shapes and measurements of nozzle hole of high-dispersion atomization nozzle applied for direct injection Diesel engine *N. Tamaki, K. Nishikawa* *Kindai University, Japan*	Numerical study of liquid jets *A. Jameel, P. Bowen, K. Yokoi* *Cardiff University, United Kingdom*	Numerical computation of ice crystal accretion on warm aircraft components at high altitudes *D. Kintea, M. Schremb, I. Roisman, C. Tropea* *Technische Universität Darmstadt, Germany*
13:55	Behavior of Internal Cavitating Flow and Primary Spray Breakup of a Large-Scaled VCO Diesel Nozzle with a Small-Lifted and Eccentric Needle *T. Oda, T. Iwatani, N. Takahashi, T. Sumi, K. Ohsawa* *Tottori University, Japan*	Analysis of atomizing liquid ligaments *C. Dumouchel, J.-B. Blaisot* *University of Rouen, France*	Numerical Simulation of Shear Thinning Liquids Impacting on Dry Solid Walls *N. Roth, C. Meister, H. Gomaa, M. Ertl, B. Weigand* *Universität Stuttgart, Germany*
14:20	Influence of in-nozzle flow on spray morphology *A. Schmid, B. von Rotz, G. Weisser, K. Herrmann, C. Habchi, J. Bohbot* *Wärtsilä Switzerland Ltd., Switzerland*	Numerical simulation of turbulent liquid jet breakup using a sub-grid criterion with industrial application *M. Saeedipour, S. Schneiderbauer, S. Pirker, S. Bozorgi* *Johannes Kepler University, Austria*	Anisotropic wetting on grooved surface investigated by X-ray micro tomography *M. Santini, M. Guilizzoni, M. Lorenzi, S. Fest-Santini, V. Knisel* *University of Bergamo, Italy*
14:45	Scale Effect on Liquid Film Formation in a Prefilming Type Air-blast Atomizer *M. Itoh, S. Matsuno* *IHI Corporation, Japan*	Experimental and numerical investigation of 90 µm real-size transparent nozzles with high pressure conditions *S. Jollet, H. Hansen, K. Bitner, D. Niemeyer, F. Dinkelacker* *Universität Hannover, Germany*	Heat transfer enhancement due to gas-assisted droplet impingement *C. Caceres, A. Diaz* *Diego Portales University, Chile*
15:10	**Coffee**		
	Sprays in Engines and Automotives 5 *Chair: M. Sadiki*	**Jet and Droplet Breakup 4** *Chair: G. Lamanna*	**Droplet Impact and Interaction 4** *Chair: F.-X. Demoulin*
15:30	Shadowgraphic Characterisation of Marine Lubricant Sprays *T. Gardhouse, G. de Sercey, C. Crua, S. Edwards, C. Thompson* *University of Brighton, United Kingdom*	Modelling Accelerating Liquid Jet Breakup in Combustor Environments *O. Diemuodeke, I. Sher* *Cranfield University, United Kingdom*	The O'Rourke droplet collision model for the Euler-Eulerian framework *Z. Petranovic, W. Edelbauer, M. Vujanovic, N. Duic* *University of Zagreb, Croatia*
15:55	Structure and velocity field of individual plumes of flashing gasoline direct injection sprays *D. Weber, P. Leick* *Robert Bosch GmbH, Germany*	Numerical study of liquid breakup at the surface of turbulent liquid jets using One-Dimensional Turbulence *A. Movaghar, F. Schulz, H. Schmidt, M. Linne, A. Kerstein, M. Oevermann* *Chalmers University of Technology, Sweden*	Modeling of liquid-wall interaction using the meshless Smoothed Particle Hydrodynamics (SPH) method *L. Wieth, S. Braun, R. Koch, H.-J. Bauer* *Karlsruhe Institute of Technology (KIT), Germany*
16:20	Imaging cavitation behaviour of various fluids in real size transparent nozzles of different length to diameter ratios *H. Chaves* *TU Bergakademie Freiberg, Germany*	Numerical Investigation of Spray Formation and Evolution in Gas-Assisted Atomization *Y. Ling, S. Zaleski* *Université Pierre et Marie Curie, France*	On the energy dissipation in Leidenfrost drop impacts: Newtonian vs. non-Newtonian fluids *S. Chen, V. Bertola* *University of Liverpool, United Kingdom*
16:55	**End**		