

Flow processes during composites manufacturing – 14
30th of May to 1st June 2018 at Kulturens hus in Luleå

Day	Morning 30 May
	Lilla salen
07:15 - 08:00	REGISTRATION
08:00 - 08:15	OPENING OF FPCM-14
08:15 - 09:00	PLENARY SPEAKER I: Prof Philippe H. Geubelle, “FASTER, ENERGY-EFFICIENT MANUFACTURING OF COMPOSITE MATERIALS USING FRONTAL POLYMERIZATION” <i>Chaired by N. Emami</i>
Session 1a	PERMEABILITY MODELLING I <i>Chaired by P. Mitschang and G. Hellström</i>
09:05 - 09:23	EXPERIMENTAL VALIDATION OF NUMERICAL DUAL-SCALE PERMEABILITY PREDICTION <i>Jörg Dittmann and Peter Middendorf</i>
09:23 - 09:41	PERMEABILITY MODELLING AND RESIN INJECTION SIMULATION FOR 3D WOVEN FABRICS <i>Andreas Endruweit and Andrew C. Long</i>
09:41 - 09:59	EFFECTIVE PERMEABILITY AVERAGING SCHEME TO ADDRESS HETEROGENEOUS PREFORMS WITH ANISOTROPY EFFECTS AND OFF-AXIS ORIENTATION OF PLIES <i>Simone Bancora, Christophe Binetruy, Suresh Advani, Elena Syerko and Sébastien Comas-Cardona</i>
09:59 - 10:17	NUMERICAL SIMULATION OF RESIN INFILTRATION PROCESS ON 3D FIBROUS REINFORCEMENT AT MULTISCALE <i>Chen Li, Arthur Cantarel and Xiaojing Gong</i>
10:20-10:40	Coffee

Day	Morning 30 May
Room	Hägnan
Session 1b	PROCESS CONTROL & OPTIMISATION I <i>Chaired by C.M. O’Bradaigh and P. Fernberg</i>
09:05 - 09:23	VALIDATION OF A LOW INERTIA MOLD WITH RECTANGULAR HEATING CHANNELS FOR INJECTION PROCESS <i>Jean Collomb, Pascale Balland, Pascal Francescato, Yves Gardet, David Leh and Philippe Saffré,</i>
09:23 - 09:41	IN-PROCESS FLOW FRONT DETECTION IN RECLAIMED CARBON FIBRE MATERIALS USING SURFACE MAPPING SENSORS <i>James Kratz, Lina Zschenderlein and Arthur Levy,</i>
09:41 - 09:59	REAL TIME UNCERTAINTY ESTIMATION IN FLOW PROCESSES OF COMPOSITES MANUFACTURING, <i>Konstantinos I. Tifkitsis and Alexandros A. Skordos,</i>
09:59 - 10:17	INCREASED COMPOSITE HAND-LAYUP REPEATABILITY USING END-END DESIGN AND MANUFACTURE SIMULATION SOFTWARE. <i>David Hughes, Farhad Nabhani and Shuxian Wang</i>
10:20-10:40	Coffee

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Day	Morning 30 May
Room	Lilla salen
Session 2a	PERMEABILITY MODELLING II/BIOCOMPOSITES, <i>Chaired by S. Advani and G. Hellström</i>
10:40-10:58	PERMEABILITY OF FLOW ALONG AND ACROSS FIBER BUNDLES: TESTING OF PERMEABILITY MODELS THROUGH TOW-SCALE EXPERIMENTS AND SIMULATIONS <i>Amin Zarandi, Salvador Arroyo and Krishna Pillai</i>
10:58-11:16	EFFECTIVE VISCOSITY IN STOKES-BRINKMAN COUPLING USING THE NAVIER-SLIP FOR TRANSVERSE FLOWS IN DUAL-SCALE FIBROUS POROUS MEDIA <i>Jingang Lu and Wook Ryol Hwang</i>
11:16-11:34	GENERATING REPRESENTATIVE VOLUME ELEMENTS OF YARNS WITH NON-CIRCULAR FILAMENTS' CROSS-SECTIONS <i>Mathias Engelfried, Lyane Antonin Mavoungou, Ilja Verspohl, Patrick Böhler and Peter Middendorf</i>
11:34-11:52	RESIN IMPREGNATION OF NANOSTRUCTURED FIBRIL NETWORKS <i>Lars Berglund and Jakob Wohler</i>
11:55-13:00	Lunch & Meeting for FPCM INTERNATIONAL SCIENTIFIC COMMITTEE in VIP-rummet

Day	Morning 30 May
Room	Hägnan
Session 2b	Process control & optimisation II <i>Chaired by F. Trochu and P. Fernberg</i>
10:40-10:58	DEVELOPMENT OF A DIELECTRIC SENSOR FOR THE FLOW MONITORING OF RESIN TRANSFER MOULDING PROCESS <i>Athanasios Pouchias, Jasmin Stein, Mihalis Kazilas and Paul Cunningham</i>
10:58-11:16	FAST ALGORITHMS FOR ACTIVE CONTROL OF MOULD FILLING IN RTM PROCESS WITH UNCERTAINTIES <i>Mikhail Matveev, Andreas Endruweit, Marco Iglesias, Andrew Long and Michael Tretyakov</i>
11:16-11:34	ULTRASONIC RESIN FLOW AND CURE MONITORING <i>Nico Liebers and Dominic Bertling</i>
11:34-11:52	IMPREGNATION SIMULATION AND DESIGN OF INJECTION BOXES APPLIED TO PREPREGGING FOR WIND TURBINE ROTOR BLADES <i>Roman Braun, Felix Klaenfoth and Sören Heißmeyer</i>
11:55-13:00	Lunch & Meeting for FPCM INTERNATIONAL SCIENTIFIC COMMITTEE in VIP-rummet

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Day	Afternoon 30 May
Room	Lilla salen
13:00-13:45	KEYNOTE SPEAKERS I & II Prof P. Marques GRAPHENE OXIDE: A NANOPLATFOM FOR MULTIFUNCTIONAL COMPOSITES Dr. M. Gresil GRAPHENE – THE NEW MATERIALS FOR MULTI-FUNCTIONAL COMPOSITES <i>Chaired by N. Emami</i>
Session 3a	Wetting dynamics / Advanced exp. techniques, <i>Chaired by K.M. Pillai and S. Larsson</i>
13:50-14:08	IDENTIFICATION OF KEY PARAMETERS IN DYNAMIC WETTING AND DEWETTING PHENOMENA WITH MOLTEN POLYMERS FOR COMPOSITE PROCESSING <i>Monica Francesca Pucci, Benoît Duchemin, Moussa Gomina and Joël Bréard</i>
14:08 - 14:26	ANALYSIS OF THE CAPILLARY DRIVEN WETTING BEHAVIOUR IN REINFORCING TEXTILE STRUCTURES <i>Yannick Bloessl and Ralf Schledjewski</i>
14:26 - 14:44	EVALUATION OF CAPILLARY PRESSURE DEPENDING ON TEMPERATURE WITH UNCURED RESINS BY WICKING TESTS <i>Pierre-Jacques Liotier, Monica Francesca Pucci and Sylvain Drapier</i>
14:44 - 15:02	FIBRE SURFACE MODIFICATION FOR FLOW ENHANCEMENT IN LIQUID COMPOSITE MOLDING <i>Baris Caglar, Cem Tekin and Véronique Michaud</i>
15:02- 15:20	TOMOGRAPHIC PIV OF FLOW TO HIGH RE FLOW THROUGH A MODEL OF WELL-ORDERED FABRICS <i>Sofia Larsson, Staffan Lundström, Henrik Lycksam</i>
15:20-15:40	Coffee

Day	Afternoon 30 May
Room	Hägnan
Session 3b	Graphene as reinforcement I , <i>Chaired by P. Marques and N. Emami</i>
13:50-14:08	BIOCOMPATIBILITY, MECHANICAL AND TRIBOLOGICAL PROPERTIES OF GO REINFORCED THERMOPLASTIC POLYMER <i>Nazanin Emami</i>
14:08 - 14:26	SYNTHESIS OF HOLLOW FULLERENE-LIKE MOLYBDENUM DISULFIDE/REDUCED GRAPHENE OXIDE NANOCOMPOSITES WITH EXCELLENT LUBRICATING PROPERTIES <i>Yijun Shi</i>
14:26 - 14:44	LDPE-GNP NANOCOMPOSITES: MANUFACTURING AND PROPERTIES. <i>Karolina Gaska, Xiangdong Xu, Christian Müller, Stanislaw Gubanski, Andrzej Rybak, Artur Siwek and Roland Kádár</i>
14:44 - 15:02	HOMOGENIZATION METHOD FOR 2-D NANO-STRUCTURE REINFORCED POLYMER MATRIX. <i>Brina Blinzler, Ragnar Larsson, Karolina Gaska and Roland Kádár</i>
15:02- 15:20	DEVELOPMENT OF FUNCTIONALIZED WOOD COMPOSITES FOR SMART PRODUCTS <i>Guan Gong, Birgitha Nyström, Zainab Al-Maqdasi, Roberts Joffe and Runar Långström</i>
15:20-15:40	Coffee

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Day	Afternoon 30 May
Room	Lilla salen
Session 4a	X-ray tomography in composites manufacturing <i>Chaired by J. Bréard and S. Larsson</i>
15:40-15:58	Invited speaker 3D/4D QUANTITATIVE STUDIES USING X-RAY MICROTOMOGRAPHY: FROM SNOW CRYSTALS TO METAL STRUCTURES <i>Fredrik Forsberg</i>
15:58-16:16	FIBROUS REINFORCEMENT MICROSTRUCTURE EVOLUTION DURING THE INFUSION PROCESS: EXPERIMENTAL CHARACTERIZATION WITH CT-SCAN <i>Julie Hemmer, Thibaut Savart, Arthur Babeau, Christian Burtin, Christophe Binetruy and Sébastien Comas-Cardona</i>
16:16-16:34	PERMEABILITY AND COMPACTION CHARACTERIZATION OF A 3D ORTHOGONAL FABRIC USING IN-SITU μ XCT <i>Muhammad Ali, Rehan Umer and Kamran Khan</i>
16:34-16:52	IN SITU 3D OBSERVATIONS OF THE IMPREGNATION OF MODEL FIBROUS NETWORKS <i>Chiara Balbinot, Florian Martoia, Laurent Orgéas and Pierre Dumont</i>
16:52-17:10	EXPLORATORY STUDY FOR THE USE OF DIFFUSIVE TRANSPORT AND THE TORTUOSITY FACTOR, EXTRACTED FROM X-RAY CT GEOMETRICAL MODELS, AS PROXY FOR PERMEABILITY IN COMPOSITE MATERIALS. <i>Jeroen Soete, Stepan Lomov, Larissa Gorbatikh and Martine Wevers</i>

Day	Afternoon 30 May
Room	Hägnan
Session 4b	Graphene as reinforcement II <i>Chaired by M. Gresil and N. Emami</i>
15:40-15:58	A NONLINEAR FRAMEWORK FOR THE RHEOLOGICAL CHARACTERIZATION OF POLYMER NANOCOMPOSITES. <i>Roland Kádár</i>
15:58-16:16	EFFECT OF SURFACE ROUGHNESS AND HYGROTHERMAL AGING ON MULTISCALE CARBON REINFORCED UHMWPE-COMPOSITES. <i>Luca Palmeira Belotti, Nazanin Emami</i>
16:16-16:34	MICROSTRUCTURE PROPERTY CORRELATION OF LATEX ASSISTED FICTIONALIZED MULTI-WALLED CARBON NANOTUBE REINFORCED ELASTOMERIC NANOCOMPOSITES. <i>Upendra Kulshrestha, Subrata Bandhu Ghosh and Niti Nipun Sharma</i>
16:34-16:52	GRAFTING HETEROELEMENT-RICH GROUPS ON GRAPHENE OXIDE TO IMPROVE LUBRICATION PERFORMANCE <i>Yijun Shi</i>
16:52-17:10	FRACTURE TOUGHNESS AND THERMAL CHARACTERISATION OF GO BASED UHMWPE COMPOSITES <i>Nazanin Emami, Latifa Melk</i>

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Day	Morning 31 May
Room	Lilla salen
07:45 – 08:00	REGISTRATION
08:00 – 08:45	Plenary Speaker II: Prof Kristiina Oksman “NANOCELLULOSE AND ITS USE IN COMPOSITE PROCESSING” <i>Chaired by S. Lundström</i>
Session 5a	Process modelling and simulation I <i>Chaired by S.V. Lomov and H. Åkerstedt</i>
08:50-09:08	INTEGRATION OF CAPILLARY EFFECTS IN THE 3D ORTHOTROPIC SIMULATION OF LIQUID RESIN INFUSION (LRI) PROCESSES <i>Koloina Andriamananjara, Nicolas Moulin, Julien Bruchon and Sylvain Drapier</i>
09:08 - 09:26	MOLD FILLING SIMULATION OF A PRESSURE CONTROLLED RESIN TRANSFER MOLDING (PC-RTM) PROCESS – METHOD AND APPLICATION <i>Julian Seuffert, Philipp Rosenberg, Luise Kärger, Frank Henning, Martin Kothmann and Günter Deinzer</i>
09:26 - 09:44	EFFICIENT MULTISCALE METHOD TO SIMULATE LIQUID RESIN INFUSION PROCESS IN FABRICS WITH QUASI-PERIODIC PERMEABILITY <i>Christophe Binetruy, Quentin Ayoul-Guilmard, Elena Syerko, Anthony Nouy, Minyoung Yun & Suresh Advani</i>
09:44 - 10:02	FLOW MODELING OF VARTM INFUSION IN PRESENCE OF HPM USING LEVEL SET APPROACH, <i>Debabrata Adhikari, Suhasini Gururaja and Santosh Hemchandra</i>
10:02-10:20	3D INFUSION SIMULATION OF WINDTURBINE BLADES, <i>Arjen Koorevaar</i>
10:20-10:40	Coffee
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Session 5b	Bio- and nanocomposites <i>Chaired by A. Nakai and K. Oksman</i>
08:50-09:08	LESSONS FROM IN-SITU X-RAY CT AND HIGH-RESOLUTION μ -CT IMAGING OF LIQUID TRANSPORT IN TIMBER FOR BIOCOMPOSITE MANUFACTURE <i>Ronny Pini, Henry C. Burridge, Saurabh Mk. Shah, Guanglu Wu, Darshil U. Shah, Thomas P.S. Reynolds, Michael H. Ramage and Paul F. Linden</i>
09:08 - 09:26	CELLULOSE NANOFIBER AEROGELS AS PREFORMS IN VACUUM INFUSION <i>Tuukka Nissilä and Kristiina Oksman</i>
09:26 - 09:44	HYBRID NATURAL FIBER THERMOPLASTIC BIOCOMPOSITES: EFFECT OF MODIFICATION OF FIBER AND POLYMER ON MATERIAL PROPERTIES <i>Abubakar Umar Birnin-Yauri and Nor Azowa Ibrahim</i>
09:44 - 10:02	MULTIPHYSIC COUPLED IMPREGNATION SIMULATION FOR RTM PROCESS WITH NANOPARTICLE MODIFIED RESIN SYSTEMS <i>Dilmurat Abliz and Gerhard Ziegmann</i>
10:02-10:20	-
10:20-10:40	Coffee

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Room	Lilla salen
Session 6a	Process modelling and simulation II <i>Chaired by P. Hubert and R. Larsson</i>
10:40-10:58	EXPERIMENTAL VALIDATION OF PROCESS SIMULATIONS FOR VACUUM-BAG-ONLY PREPREGS IN THICK-SECTION STRUCTURES <i>James Maguire, Kapileswar Nayak, Conor Glennon, Colin Robert and Conchúr Ó Brádaigh</i>
10:58-11:16	ENHANCED VISCOSITY CHARACTERIZATION FOR FAST CURING EPOXY RESINS AT PROCESS RELEVANT TEMPERATURES <i>Alexander Bernath, Maximilian Grulich, Luise Kaerger and Frank Henning</i>
11:16-11:34	EFFICIENT NUMERICAL SIMULATION METHOD FOR THREE-DIMENSIONAL RESIN FLOW IN LAMINATED PREFORM FOR LIQUID COMPOSITE MOLDING PROCESSES <i>Naziha Chebil, Mylène Deleglise-Lagardere and Chung-Hae Park</i>
11:34-11:52	USING OPENFOAM FOR SIMULATION OF REACTIVE INJECTION MOLDING AS A NON-ISOTHERMAL COMPRESSIBLE MULTIPHASE FLOW <i>Florian Wittemann, Robert Maertens, Luise Kaerger and Frank Henning</i>
11:52-12:10	FACILITATING PROCESS SIMULATION THROUGH A SHARED PERMEABILITY RESOURCE <i>Martin McLean, Miroslav Stojkovic, Andrew George, Ayyoub Kabachi, Paolo Ermanni, Mario Danzi and Cristian Lira</i>
12:10-13:10	Lunch & posters

Day	Morning 31 May
Room	Hägnan
Session 6b	Mechanical properties related to manufacturing/Textile mech <i>Chaired by R. Joffe and F. Forsberg</i>
10:40-10:58	ONE SHOT SANDWICH COMPOSITE STRUCTURE BY LIQUID RESIN INFUSION, INFLUENCE OF MANUFACTURING PROCESS PARAMETERS ON LOW VELOCITY IMPACT <i>Jean Gulla, Arthur Cantarel, Marie-Laetitia Pastor and Xiaojing Gong,</i>
10:58-11:16	SCALING-UP PRODUCTION OF CNT-COATED FIBRE REINFORCEMENT USING CONTINUOUS EPD FOR HIGH-PERFORMANCE AND MULTIFUNCTIONAL COMPOSITES, <i>Guan Gong, Birgitha Nyström, Erik Sandlund, Daniel Eklund and Roberts Joffe and</i>
11:16-11:34	EFFECT OF MOLDING CONDITION ON MECHANICAL PROPERTIES OF CFRP BY HP-RTM, <i>Asami Nakai, Rika Tanaka, Ryo Hirai and Kazumasa Okayasu</i>
11:34-11:52	CHARACTERIZATION OF OUT-OF-PLANE CAPILLARY PRESSURE OF TEXTILES, <i>Bjoern Willenbacher, David May and Peter Mitschang</i>
11:52-12:10	EXPERIMENTAL STUDY ON THE INFLUENCE OF CYCLIC COMPACTION ON THE FIBER-BED STATIC AND DYNAMIC COMPACTION RESPONSES, <i>Ayyoub Kabachi, Mario Danzi and Paolo Ermanni</i>
12:10-13:10	Lunch & posters

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Room	Lilla salen
13:10-13:45	Keynote speaker III: Prof Pierre Dumont “3D CHARACTERISATION OF THE MICROSTRUCTURAL EVOLUTION OF SMC’S DURING COMPRESSION MOULDING” <i>Chaired by R. Joffe</i>
Session 7a	Permeability measurement I <i>Chaired by V. Michaud and H. Lycksam</i>
13:50-14:08	INCREASING PERMEABILITY OF DRY-FIBER-PLACED PREFORMS <i>Kalle Kind and Benno Böckl</i>
14:08 - 14:26	STITCHING PREFORMS MANUFACTURED BY DRY FIBER PLACEMENT TO OPTIMIZE PERMEABILITY - AN EXPERIMENTAL AND SIMULATIVE EVALUATION <i>Oliver Rimmel, David May and Peter Mitschang</i>
14:26 - 14:44	INVESTIGATING FLOW MECHANICS WITHIN A NON-DESTRUCTIVE AIR INJECTABILITY MEASUREMENT FOR FIBRE PREFORMS <i>Tino Hermann, Thomas Henke, Piaras Kelly and Simon Bickerton</i>
14:44 - 15:02	UNCERTAINTY IN MEASUREMENT OF PERMEABILITY TENSOR OF POROUS FIBROUS PREFORM USED FOR THE LIQUID COMPOSITE MOLDING <i>Viktor Grishaev, Sergey Abaimov, Oleg Lebedev, Bulat Gilmutdinov and Iskander Akhatov</i>
15:02- 15:20	POLYNOMIAL SURFACE MODELLING OF FLOW FRONT DATA FOR IN-PLANE PERMEABILITY CHARACTERIZATION OF TEXTILE FABRICS BY RADIAL FLOW EXPERIMENTS <i>Ewald Fauster, David Christian Berg, David May, Yannick Blößl and Ralf Schledjewski</i>
15:20-15:40	Coffee

Day	Afternoon 31 May
Room	Hägnan
Session 7b	Compression moulding of SMC <i>Chaired by P. Dumont and M. Åkermo</i>
13:50-14:08	PROCESS SIMULATION OF SHEET MOULDING COMPOUND (SMC) USING AN EXTENSIONAL VISCOSITY MODEL <i>Martin Hohberg, Luise Kärger, Andrew Hrymak and Frank Henning</i>
14:08 - 14:26	DEVELOPMENT OF A SOLID MECHANICS BASED MATERIAL MODEL FOR THE COMPRESSION MOLDING BEHAVIOR OF SMC MATERIALS <i>Dominic Schommer and Miro Duhovic</i>
14:26 - 14:44	MATERIAL CHARACTERIZATION OF HIGH FIBER VOLUME CONTENT LONG FIBER REINFORCED SMC MATERIALS <i>Miro Duhovic, Vitali Romanenko, Dominic Schommer and Joachim Hausmann</i>
14:44 - 15:02	REVIEW OF THE NUMERICAL MODELLING OF COMPRESSION MOULDING OF SHEET MOULDING COMPOUND <i>Gustaf Alnersson, Waseem Tahir, Staffan Lundström</i>
15:02- 15:20	PROCESS MODELLING OF HIGH PRESSURE COMPRESSION RTM <i>Matt Etchells</i>
15:20-15:40	Coffee

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Room	Lilla salen
Session 8a	Permeability measurement II <i>Chaired by R. Schledjewski and H. Lycksam</i>
15:40-15:58	MEASUREMENT OF CURVED AND SHEARED PERMEABILITY <i>Caleb Lystrup, Andrew George</i>
15:58-16:16	EXPERIMENTAL PERMEABILITY EVALUATION OF BINDERED PREFORM <i>Louis Grou and Pascal Hubert</i>
16:16-16:34	COMBINED CHARACTERIZATION OF PORE SIZE DISTRIBUTION AND PERMEABILITY IN FIBROUS TEXTILES BY CAPILLARY FLOW POROMETRY <i>Philippe Causse and François Trochu</i>
16:34-16:52	QUANTITATIVE TRANSVERSAL PERMEABILITY TESTING - CHALLENGES AND ENHANCEMENTS, <i>Robert Graupner and Klaus Drechsler</i>
16:52-17:10	DEVELOPMENT OF A NEW TESTING BENCH FOR TEXTILE THROUGH-THICKNESS PERMEABILITY CHARACTERIZATION <i>Bin Yang, Jihui Wang and Xianglin Li</i>
17:20-19:20	Workshop: Permeability measurements <i>David May</i>

Day	Afternoon 31 May
Room	Hägnan
Session 8b	Consolidation of prepregs / Process optimisation <i>Chaired by M. Åkermo and Y. Aitomäki</i>
15:40-15:58	A COMPARISON OF THE APPROACHES TO THE PROCESS MODELLING OF SHEET MOULDING COMPOUND <i>Yvonne Aitomäki and Daniel Berglund</i>
15:58-16:16	RESIN AND POROSITY REDISTRIBUTION DURING CONSOLIDATION <i>Pavel Simacek and Suresh G. Advani</i>
16:16-16:34	PROCESS SIMULATION OF COMPRESSION MOLDING OF PREPREG PLATELET MOLDING SYSTEMS <i>Anthony Favaloro, Drew Sommer and R. Byron Pipes</i>
16:34-16:52	MODELING CONSOLIDATION AND VOID DYNAMICS DURING AUTOMATED TAPE PLACEMENT PROCESS <i>Chady Ghnatios, Pavel Simacek, Francisco Chinesta and Suresh Advani</i>
16:52-17:10	PGD-VADEMECUM FOR BASED DISTANCE OPTIMIZATION AND CONTROL METHODS IN LCM PROCESSES <i>Nicolas Montes, Lucia Hilario, Francisco Chinesta, Antonio Falco and Jean Louis Duval</i>

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07:45 – 08:00	REGISTRATION
08:00 – 08:45	Plenary Speaker: Prof Wook Ryol Hwang “QUANTIFICATION OF FLOWS OF NON-NEWTONIAN FLUIDS IN TERMS OF ENERGY DISSIPATION RATE: VISCOMETRY, MOBILITY, TORTUOSITY AND PROCESS MONITORING” <i>Chaired by Y. Aitomäki</i>
Session 9a	LCM of melt processable thermoplastics <i>Chaired by C. Binétruy</i>
08:50-09:08	THERMOPLASTIC MELT IMPREGNATION OF COMPOSITE LAMINATES BY INJECTION-COMPRESSION PROCESS <i>Gilles Orange, Sebastien Comas-Cardona and Jérôme Maupetit</i>
09:08 - 09:26	STRATEGIES FOR IN-PLANE THERMOPLASTIC MELT IMPREGNATION OF GLASS-FABRICS <i>Damiano Salvatori and Véronique Michaud</i>
09:26 - 09:44	THROUGH THICKNESS THERMOPLASTIC MELT IMPREGNATION: EFFECT OF FABRIC ARCHITECTURE ON COMPACTION AND PERMEABILITY UNDER HIGH PROCESSING PRESSURE <i>Julia Studer, Clemens Dransfeld, Jon Jauregui Cano, Bodo Fiedler, Julie Hemmer, François Bertrand, Christophe Binetruy, Sébastien Comas-Cardona, Christian Burtin and Andre Keller</i>
09:44 - 10:02	REACTIVE THERMOPLASTIC COMPOSITE/ALUMINIUM INTERFACE CHARACTERISATION AND OPTIMIZATION <i>Henri Perrin, Arnaud Martin, Christian Lavy and David Ruch</i>
10:02-10:20	DIGITAL TWIN METHODOLOGY FOR COMPRESSION MOULDED THERMOPLASTIC COMPOSITE OPTIMISATION <i>David Hughes, Stewart Keir and Carl Meggs</i>
10:20-10:40	Coffee
Day	Morning 1 June
Room	Hägnan
Session 9b	Defects & particles I <i>Chaired by J. Summerscales and S. Lundström</i>
08:50-09:08	EFFECT OF FABRIC DEFORMATION AND FLOW VELOCITY ON GENERATION OF POROSITY IN INFUSION PROCESSES <i>Silvio Facciotto, Anthony Pickett, Alessandra Lingua, Jorge Ignacio López Palomares and Peter Middendorf</i>
09:08 - 09:26	NUMERICAL MODELING OF VOID BEHAVIOR <i>Thomas Rendall and James Kratz</i>
09:26 - 09:44	STOKES CAPILLARY DRIVEN FLOWS IN FIBROUS MEDIA <i>Loïc Chevalier, Julien Bruchon, Nicolas Moulin, Pierre-Jacques Lotier and Sylvain Drapier</i>
09:44 - 10:02	IMPREGNATION PROCESS OF VISCOUS FLUID IN WOVEN FIBRE BUNDLES DRIVEN BY PRESSURE DIFFERENCE <i>Yo Kamei, Haruka Ohgaki and Ichiro Ueno</i>
10:02-10:20	OPTICAL VOID FORMATION AND MOBILITY MEASUREMENTS IN CARBON FIBER REINFORCEMENTS <i>Caleb Lystrup, Perry Burton, Andrew George and David Fullwood</i>
10:20-10:40	Coffee

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Session 10a	Processing of thermoplastic composites <i>Chaired by R. Kádár and N. Emami</i>
10:40-10:58	INFLUENCE OF GEOMETRY ON COMPONENT QUALITY AND PROPERTIES IN OVERMOULDED THERMOPLASTIC COMPOSITE PARTS <i>Mario Adrian Valverde, Robert Kupfer, Luiz Kawashita, Maik Gude and Stephen Hallett</i>
10:58-11:16	HIGH PERFORMANCE SIMULATION OF SHORT FIBER SUSPENSIONS FOR MANUFACTURING PROCESSES <i>Nesrine Aissa, Luisa Silva, Emmanuelle Abisset-Chavanne and Hugues Digonnet</i>
11:16-11:34	DEFORMATION MECHANISM IN COMPRESSION MOLDING OF THERMOPLASTIC COMPOSITES, <i>Waqas Ali, Mohammed Iqbal Abdul Rasheed, Ulrich Sachs, Hubertus J.M. Geijselaers and Remko Akkerman</i>
11:34-11:52	FLOW BEHAVIOUR OF RECYCLED THERMOPLASTIC COMPOSITES PROCESSED BY LOW-SHEAR MIXING <i>Guillaume Vincent, Thomas de Bruijn, Mohammed Iqbal Abdul Rasheed and Sebastiaan Wijskamp</i>
11:52-12:10	-
12:10-13:10	Lunch

Day	Morning 1 June
Room	Hägnan
Session 10b	Defects & particles II / Compaction of fabrics <i>Chaired by A. George and H. Åkerstedt</i>
10:40-10:58	AIR PERMEABILITY OF Balsa CORE, AND ITS INFLUENCE ON DEFECT FORMATION IN RESIN INFUSED SANDWICH LAMINATES <i>Richard Cullen, Stephen Grove and John Summerscales</i>
10:58-11:16	ANALYSIS AND SIMULATION OF DRY-SPOT BEHAVIOR IN LIQUID COMPOSITE MOLDING <i>Dominic Bertling and Nico Liebers</i>
11:16-11:34	AN EXPERIMENTAL INVESTIGATION FOR THE IMPREGNATION OF PARTICLE FILLED FIBROUS PREFORM IN RESIN TRANSFER MOLDING (RTM) <i>Nihad Siddig, Laurent Bizet and Abdelghani Saouab</i>
11:34-11:52	EXPERIMENTAL STUDY OF FIBRE WASHOUT INDUCED BY HIGH INJECTION PRESSURE DURING RESIN TRANSFER MOULDING <i>Masoud Bodaghi, Rui Gome, Pavel Simacek, Suresh G Advani and Nuno C Correia</i>
11:52-12:10	ON IMPROVED TOW COMPACTION MODELLING FOR ACCURATE PERMEABILITY PREDICTION OF WOVEN TEXTILES <i>Willsen Wijaya, Piaras Kelly and Simon Bickerton</i>
12:10-13:10	Lunch

Flow processes during composites manufacturing – 14
30th of May to 1st June 2018 at Kulturens hus in Luleå

Day	Afternoon 1 June
Room	Lilla salen
Session 11a	Compaction and deformation of fabrics <i>Chaired by A. Endruweit and S. Lundström</i>
13:10 - 13:28	EFFECTS OF PREFORMING PROCESS PARAMETERS ON CARBON FIBRE PREFORM PROPERTIES AND RESIN TRANSFER MOULDING FILLING BEHAVIOUR <i>Sam van Oosterom, Simon Bickerton and Tom Allen</i>
13:28 - 13:46	EXPERIMENTAL STUDY OF FLOW-INDUCED IN-PLANE DEFORMATIONS OF SATURATED FIBROUS REINFORCEMENT DURING COMPRESSION <i>Alexandre Hautefeuille and Sébastien Comas-Cardona</i>
13:46 - 14:04	A COMPARISON OF DRY AND WET COMPRESSIBILITY MEASUREMENTS AGAINST IN-SITU VACUUM BAG DISPLACEMENT DURING INFUSION <i>Andrew George, Paul Hannibal and Scott E. Stapleton</i>
14:04 - 14:22	METHODOLOGY OF DRY AND WET COMPRESSIBILITY <i>Pedro Miguel Sousa, Jan Ivens and Stepan V. Lomov</i>
14:25	Closing of Conference
14:30-	Coffee

Day	Afternoon 1 June
Room	Hägnan
Session 11b	Numerical modelling <i>Chaired by W.R. Hwang and H. Åkerstedt</i>
13:10 - 13:28	PLANAR INFUSION FLOW MODELLING OF THIN-WALLED COMPONENTS WITH DEFORMABLE PREFORM <i>Da Wu and Ragnar Larsson</i>
13:28 - 13:46	DERIVATION OF CONSTITUTIVE EQUATIONS FOR ROD SUSPENSIONS IN GENERALISED NEWTONIAN FLUIDS BASED ON A CELL MODEL <i>Julien Ferec, Erwan Bertevas, Boo Cheong Khoo, Gilles Ausias and Nhan Phan-Thien</i>
13:46 - 14:04	SIMULATION OF 3D PREPREG CONSOLIDATION PROCESS USING SOLID SHELL ELEMENTS, <i>Mohammad Rouhi and Maciej Wysocki</i>
14:04 - 14:22	A NUMERICAL SIMULATION OF FLUID FLOW THROUGH A THIN POROUS MEDIA CONFINED WITHIN A NARROW DUCT <i>Ammar Saber, J. Gunnar Hellström and T. Staffan Lundström</i>
14:30-	Coffee