



EUROTHERM 2024 CONFERENCE

PRELIMINARY PROGRAMME AND GUIDELINES FOR AUTHORS

Instructions for oral presenters

Please use **Microsoft PowerPoint** (.pptx) or **Adobe Acrobat Reader** (.pdf) to ensure they will open successfully on an on-site PC.

Please note that the use of individual PC laptops is not permitted.

Please arrive at your respective meeting room at least **20 minutes before the start of your session**. Take time to **upload and test** your presentation on on-site PC, familiarize yourself with the setup at the lectern, meet your chairperson, and address any issues with the technician.

Presentation times:

- Plenary lecture: 45 min (40 min presentation + 5 min discussion)
- Keynote lecture: 30 min (25 min presentation + 5 min discussion)
- Regular lecture: 15 min (10 min presentation + 5 min discussion)

Instructions for poster presenters

POSTER SIZE and TEMPLATE

The presenting authors are required to personally bring their posters to the conference. The required dimensions are 90 cm (width) by 140-180 cm (height) - [size chart](#).

At the top of the poster, please provide the title of the paper, names of the authors and their affiliations, all in bold lettering of about 3 to 4 cm in size. Please note that artwork and lettering should be large and clear enough to ensure that the poster is legible from 1.5 m.

POSTER NUMBERS

Poster numbers will be provided by the conference and available on your poster board. Scotch tape will be available to facilitate attaching posters to the boards.

POSTER SESSION

The poster session will be held in **Sonce Hall** and **Zrak Hall** on **Wednesday, 12 June from 11:00 until 12:30**. Authors are required to be present next to their poster boards during the poster session.

POSTER AREA PRESENTATION

Mounting time: Monday, 10 June 08:00 - 09:00.

Dismounting time: Thursday, 13 June 12:30-13:00.

Important note: The posters from special session on **Boiling and condensation heat transfer (SpS1)** must be mounted in the **Sonce Hall**.

Special sessions (SpS)

SpS1: Boiling and condensation heat transfer

SpS2: Meshfree methods and applications in thermal sciences

SpS3: Morphology optimised design of heat exchangers

SpS4: Multiscale computational methods in bioengineering

SpS5: Solidification science and technology

SpS6: Thermal control devices and thermal circuits

SpS7: Thermal energy storage

Conference program

Sunday, 9 June 2024

17:00- 20:00	Registration Foyer
19:00- 21:00	Welcome party Restaurant

Monday, 10 June 2024

08:00-14:00	Registration Foyer						
10:00-11:00	Opening ceremony and Eurotherm young scientists awarding Chairs: Janusz Szmyd, Božidar Šarler & Laura Vanoli Arnold Hall						
11:00 – 11:45	Plenary lecture MANAGING HIGH HEAT LOADS IN EXTREME X-RAY OPTICS Saša Bajt Chair: Božidar Šarler Arnold Hall						
11:45-12:30	Plenary lecture THE ARCHITECTING OF NANOMATERIALS FOR WATER CONDENSATION APPLICATIONS Dimos Poulikakos Chair: Laura Vanoli Arnold Hall						
12:30-14:00	Lunch break Restaurant						
14:00 – 16:00	Arnold Hall 1	Arnold Hall 2	Sonce Hall	Zrak Hall	Voda Hall	Straža Hall 1	Straža Hall 2
	SpS6-1 Chair: Andrej Kitanovski	Heat transfer 1 Chair: TBA	SpS1-1: Nucleate and flow boiling Chair: Paolo Di Marco	SpS7-1: Latent heat Chair: Monica Delgado	Application 1 Chair: TBA	SpS2-1: Advances in meshfree methods Chair: Boštjan Mavrič	Fluid flow 1 Chair: TBA

14:00	<p>Keynote lecture A BRIEF REVIEW OF APPLICATIONS OF THERMAL DIODE Baowen Li, Guimei Zhu</p>	<p>OPTIMISING LIQUID IMPINGEMENT JET ARRAYS FOR CONCENTRATED HEAT SOURCES Jonathan Elliott, Gerard Byrne, Anthony Robinson</p>	<p>EFFECT OF ARTIFICIAL CAVITY ON THE MICROLAYER AND CONTACT LINE DYNAMICS AT BUBBLE GROWTH IN NUCLEATE BOILING Cassiano Tecchio, Iacopo Regoli, Benjamin Cariteau, Gilbert Alczer, Pere Roca i Cabarroca, Pavel Bulkin, Jérôme Charliac, Simon Vassant, Vadim Nikolayev</p>	<p>EXPLORING THE POTENTIAL AND CHALLENGES OF PHASE CHANGE MATERIALS IN FUTURE HEAT STORAGE SYSTEMS VIA COMPUTATIONS AND EXPERIMENTS Jada-Tiana Carnie, Dr. Antonis Sergis, Yannis Hardalupas, Professor Maria Charalambides</p>	<p>CARBON CAPTURE WITH RENEWABLE HEATING BASED ON THE TECHNICAL LIME CYCLE Eva Klockow, Marc Linder</p>	<p>Keynote lecture MESHFREE RBF-FD METHODS FOR NUMERICAL SIMULATION OF PDE PROBLEMS Elisabeth Larsson, Boštjan Mavrič, Andreas Michael, Fatemeh Pooladi, Igor Tominec</p>	<p>IDENTIFYING STEADY AND PULSATILE TWO-PHASE FLOW REGIMES WITH PRESSURE DROP SIGNALS AND ACOUSTIC EMISSIONS Matthew Hughes, Raj Agarwal, Srinivas Garimella</p>
14:15		<p>DOUBLE TWO-PHASE COOLING SYSTEM FOR ELECTRIC VEHICLES' BATTERY Luca Cattani, Matteo Malavasi, Alessandro Benelli, Fabio Bozzoli</p>	<p>INFLUENCE OF SUBCOOLING CONDITIONS ON POOL BOILING IN MICROGRAVITY CONDITIONS: SINGLE ARTIFICIAL SITE CASE Lounès Tadrist, Fedor Ronshin, Oleg Kabov, Alexey Rednikov</p>	<p>LOW-ORDER DESIGN MODELS FOR LATENT THERMAL ENERGY STORAGE Wim Beyne, Joris Degroote, Michel De Paepe</p>	<p>EXPERIMENT AND MODEL RESULTS OF A FIRST BIDIRECTIONAL ACTIVE TEMPERATURE CONTROL MODULE WITH METAL HYDRIDES FOR A FUEL CELL Hanna Lösch, Inga Bürger, Eva Fensterle</p>		<p>MIXED CONVECTION FLOW OVER A HORIZONTAL PLATE AND THE HORIZONTAL WAKE FAR DOWNSTREAM Lukáš Bábó, Wilhelm Schneider, Endre Bozsó</p>

14:30	<p>OPTIMIZATION OF SWITCHING ALGORITHMS FOR A THERMAL SWITCH-PCM-SWITCH STACK IN A BUILDING WALL FOR ENERGY SAVINGS Sarah Chen, Chris Dames, Sumanjeet (Suman) Kaur</p>	<p>A PHASE-SPLITTING APPROACH TO DESCRIBE MACROSCOPICALLY NON-EQUILIBRIUM TRANSPORT IN POROUS MEDIA Michel Quintard, Yohan Davit, Brian Wood</p>	<p>ELECTRICALLY-ENHANCED BOILING OF FC72 ON SAPPHIRE: PHASE DETECTION ANALYSIS Marco Graffiedi, Alekos Ioannis Garivalis, Paolo Di Marco, Matteo Bucci</p>	<p>EXPERIMENTAL THERMAL ANALYSIS OF AN INNOVATIVE HEAT SINK COUPLED TO A NANOEMULSION Giulia Righetti, Jorge Burgos, Leonor Hernandez, Rosa Mondragón, Simona Barison, Filippo Agresti, Simone Mancin</p>	<p>STATE OF THE ART OF HEAT PUMPS ABOVE 150°C Matevž Cimermančič, Katja Klinar, Andrej Kitanovski</p>	<p>APPLICATION OF THE GENERALIZED FINITE DIFFERENCE METHOD FOR SOLVING THREE-DIMENSIONAL HIGH-ORDER BOUNDARY VALUE PROBLEMS Tsung-Han Li, Chia-Ming Fan, Po-Wei Li</p>	<p>COMPUTATIONAL FLUID DYNAMICS MODELLING OF LARGE-SCALE BUBBLE COLUMNS: FROM THE MONO-DISPERSED HOMOGENEOUS TO THE PURE-HETEROGENEOUS FLOW REGIMES Nicolò Varallo, Giorgio Besagni, MEREU Riccardo, Inzoli Fabio</p>
14:45	<p>THERMAL CONTROL OF THIN FILMS WITH NANOSCALE STRUCTURE Moeka Sato, Yoshiya Takahara, Mitsuhiro Matsumoto, Nobuhiko Kajinami, Misaki Hanaoka, Manabu Iwakawa</p>	<p>NUMERICAL SIMULATION OF DROPLET IMPACT ON HEATED SURFACES BELOW THE BOILING POINT Rishav Saha, Bernhard Weigand</p>	<p>EXPERIMENTAL INVESTIGATION OF SURFACE TENSION AND ARTIFICIAL NUCLEATION SITE GEOMETRY ON ISOLATED BUBBLE DYNAMICS Maria Rosaria Vetrano, Frederik Mertens, Balasubramanian Nagarajan, Sylvie Castagne, Johan Steelant</p>	<p>THERMAL MANAGEMENT OF CYLINDRICAL LITHIUM-ION BATTERIES UTILIZING HYBRID SYSTEM CONSISTING OF WATER, PHASE CHANGE MATERIAL AND FINS: A NUMERICAL STUDY Satyam Singh Thakur, Rajesh Akula, Lalit Kumar</p>	<p>STATE OF THE ART OF MICRO VAPOUR COMPRESSION SYSTEMS Mihael Blatnik, Katja Klinar, Andrej Kitanovski</p>	<p>COMPARING STABILISATION METHODS FOR RBF-FD METHOD APPLIED TO PURE ADVECTION Miha Rot, Gregor Kosec</p>	<p>UNSTRUCTURED CONSERVATIVE LEVEL-SET (UCLS) METHOD FOR REACTIVE MASS TRANSFER IN BUBBLE SWARMS AT HIGH DENSITY RATIO Nestor Vinicio Balcazar Arciniega, Joaquim Rigola, A. Oliva</p>

15:00	<p>(SPS1) FLOW BOILING HEAT TRANSFER IN A PLATE HEAT EXCHANGER WITH MIXED CHEVRON ANGLE PLATES Chien-Yuh Yang, Mu Ting Hsieh</p>	<p>A NUMERICAL INVESTIGATION ON A LIQUID-COOLED BATTERY THERMAL MANAGEMENT SYSTEM: EFFECT OF INLET TEMPERATURE AND FLOW RATE Soner Birinci</p>	<p>HEAT TRANSFER MECHANISMS DURING BOILING ON LOW THERMAL CAPACITANCE HEATERS Mattia Bucci, Matevž Zupančič, Iztok Golobič</p>	<p>CONJUGATE HEAT TRANSFER ANALYSIS OF THE TRANSIENT THERMAL DISCHARGE OF A METALLIC LATENT HEAT STORAGE SYSTEM Frank Nees, Yogesh Sajikumar Pai, Werner Kraft</p>	<p>ESTIMATION OF TEMPERATURE HOTSPOTS ON LI-ION CELL UNDER DIFFERENT OPERATING AND COOLING CONDITIONS: A MACHINE-LEARNING APPROACH Rajesh Akula, Lalit Kumar</p>	<p>ON DIFFERENT IMPLEMENTATIONS OF BOUNDARY CONDITIONS IN THE MESHLESS RBF-FD METHOD FOR PHASE-FIELD MODELLING OF DENDRITIC SOLIDIFICATION Tadej Dobravec, Boštjan Mavrič, Božidar Šarler</p>	<p>SIMULATION OF NON-NEWTONIAN GAS-FOCUSED MICRO-JETS IN CHOCKED GAS FLOW REGIME Rizwan Zahoor, Saša Bajt, Božidar Šarler</p>
15:15	<p>THERMOMAGNETIC DEVICES FOR HEAT FLOW SWITCHING, RECTIFICATION, AND AMPLIFICATION Lorenzo Castelli, Qing Zhu, Ajay Garg, Kaitlyn Zdrojewski, Trevor Shimokusu, Pooja Sashital, Geoff Wehmeyer</p>	<p>THE INFLUENCE OF COLD PLATE HEIGHT ON THERMAL MANAGEMENT OF A LIQUID-COOLED BATTERY PACK Soner Birinci</p>	<p>VAPOR BUBBLE GROWTH AND DETACHMENT IN A SHEAR FLOW IN MICROGRAVITY CONDITIONS Catherine Colin, Julien Sebilléau, Mbaye Modou, Md. Qaisar Raza</p>	<p>ENHANCED LATENT THERMAL ENERGY BATTERY WITH ADDITIVE MANUFACTURING Matteo Morciano, Matteo Alberghini, Flaviana Calignano, Diego Giovanni Manfredi, Matteo Fasano, Pietro Asinari, Eliodoro Chiavazzo</p>	<p>EXPERIMENTAL CHARACTERIZATION AND NUMERICAL MODELLING OF AN AIR-WATER CO₂ HEAT PUMP UNDER DIFFERENT OUTDOOR AND OPERATING CONDITIONS FOR DOMESTIC HOT WATER GENERATION F.J.S. Velasco, Fernando Illán-Gómez, Rufino Esono Biyogo Obono, Jose R. Garcia-Cascales, Ramón A. Otón Martínez</p>	<p>SUPERCONVERGENT BEHAVIOUR OF THE RBF-FD METHOD Andrej Kolar-Požun, Mitja Jančič, Miha Rot, Gregor Kosec</p>	<p>STUDY OF TURBULENT WAVY ANNULAR FLOW INSIDE A 3.4 MM DIAMETER VERTICAL CHANNEL BY USING THE VOLUME OF FLUID (VOF) METHOD IN OPENFOAM Emanuele Zanetti, Arianna Berto, Stefano Bortolin, Mirco Magnini, Davide Del Col</p>

15:30	<p>FABRICATION OF MICROFLUIDIC THERMAL SWITCHES FOR MAGNETOCALORIC COOLING APPLICATIONS</p> <p>Blaž Velkavrh, Hana Uršič, Victor Regis, Matej Šadl, Bianka Colarič, Andrej Kitanovski, Urban Tomc</p>	<p>AN ADVANCED NUMERICAL RADIAL SUB-RESOLUTION TECHNIQUE TO CORRECT HEAT FLUXES IN THE VICINITY OF BUBBLES AT SATURATION</p> <p>Mathis GROSSO, Guillaume BOIS, Adrien Toutant</p>	<p>CONVECTIVE BOILING HEAT TRANSFER ENHANCEMENT VIA FEMTO-LASER TEXTURING</p> <p>Maria Rosaria Vetrano, Matevz Vodopivec, Mulugeta Gebrekiros Berhe, Mattia Bucci, Matevž Zupančič, Donato Fontanarosa, Matic Može, Sylvie Castagne</p>	<p>THERMAL MANAGEMENT OF HIGH-POWERED SHORT-DURATION ELECTRONICS AIDED BY A PHASE CHANGE MATERIAL THERMAL ENERGY SYSTEM</p> <p>Dominic Groulx, Devin Martherleur</p>	<p>SEASONAL ENERGY PERFORMANCE ASSESSMENT OF A HYBRID HVAC SYSTEM DRIVEN BY SOLAR AND BIOMASS ENERGY FOR SPACE HEATING AND COOLING IN RESIDENTIAL BUILDINGS</p> <p>Matteo Dongellini, Christoph Moser, Szabolcs Varga, Joao Soares, Claudia Naldi, Gian Luca Morini</p>	<p>THERMO-ELASTO-PLASTIC SIMULATION OF HOT SHAPE ROLLING OF STEEL BY A MESHLESS METHOD</p> <p>Umut Hanoglu, Božidar Šarler</p>	<p>A NUMERICAL AND EXPERIMENTAL STUDY OF BREAKDOWN OF FALLING FILM ON HORIZONTAL CIRCULAR TUBES AND ASSESSMENT OF CORRELATIONS</p> <p>Sateesh Gedupudi, Jyoti Singh</p>
15:45	<p>THERMAL CONDUCTANCE TUNNABILITY BY MEANS OF BLOCK COPOLYMER DRIVEN NANOSTRUCTURATION OF SI-ULTRATHIN MEMBRANES</p> <p>Libertad Abad Muñoz, Alex Rodriguez-Iglesias, Hugo Gómez-Torres, Jordi Tur-Prats, Marta Fernández-Regúlez, Iñigo Martin-Fernandez, Joaquin Santander, Luis Fonseca, Xavier Alvarez-Calafell, Aitor Lopeandia, Marc Salleras</p>	<p>NUMERICAL SIMULATIONS OF BUBBLY TURBULENT CONVECTION IN CUBICAL GEOMETRIES</p> <p>Joauma Marichal, Pierre Ruyer</p>	<p>BUBBLE DEPARTURE AND SLIDING IN HIGH-PRESSURE WATER FLOW BOILING</p> <p>Matthew Hughes, Artyom Kossolapov, Bren Phillips, Matteo Bucci</p>		<p>ASSESSMENT OF INTERNAL AND EXTERNAL DISTURBANCES ON THE FUZZY-BASED THERMAL CONTROL OF A SUB-SCALED BUILDING TESTBED</p> <p>Arturo Pacheco-Vega, Anayely Saguilan</p>	<p>SIMULATION OF TEMPERATURE FIELD IN STEEL BILLETS MOVING IN THE REHEATING FURNACE BY A MESHLESS METHOD</p> <p>Qingguo Liu, Umut Hanoglu, Božidar Šarler</p>	<p>PARAMETRIC ANALYSIS OF MICROSTRUCTURE IN SOLID OXIDE FUEL CELLS FOR PROLONGED RELIABILITY</p> <p>Tomasz Aleksander Prokop, Janusz Szmyd, Grzegorz Brus</p>

16:00-16:30	Coffee break Foyer						
16:30-18:30	Arnold Hall 1	Arnold Hall 2	Sonce Hall	Zrak Hall	Voda Hall	Straža Hall 1	Straža Hall 2
	SpS6-2 Chair: Miguel Muñoz Rojo	Heat transfer 2 Chair: TBA	SpS1-2: Phase-change on functionalised surfaces Chair: Vadim Nikolayev	Experiments Chair: TBA	Application 2 Chair: TBA	SpS5-1: Microstructure modeling and additive manufacturing Chair: Božidar Šarler	Thermodynamics & Miscellaneous Chair: TBA
16:30	Keynote lecture MICROACTUATORS FOR MINIATURE-SCALE THERMAL ENERGY TECHNOLOGIES Manfred Kohl	A COUPLED POINT PARTICLE TWO-PHASE HEAT AND MASS TRANSFER MODEL FOR DISPERSED FLOWS BASED ON BOUNDARY ELEMENT METHODS Matjaž Hriberšek, Timi Gomboc, Matej Zadavec, Jure Ravnik	FLOW BOILING IN MICROCHANNELS COUPLED WITH MICRO-NANO-MODIFIED SURFACES Ana Moita, Mariana Perez, Pedro Pontes	EXPERIMENTAL STUDY OF EROSION IN HEAT EXCHANGERS IMMERSSED IN A FLUIDIZED BED Pedro Domínguez-Coy, Juan Ignacio Corcoles Tendero, José A. Almendros-Ibáñez,	INFLUENCE OF SUPPLY TEMPERATURE AND BOOSTER TECHNOLOGY ON THE ENERGETIC PERFORMANCE OF A DISTRICT HEATING NETWORK Alixé Degelin, Robin Tassenoy, Elias Vieren, Toon Demeester, Michel De Paepe	LONG-DISTANCE SETTLING SIMULATION OF EQUIAXED DENDRITE BY MOVING-FRAME METHOD: PHASE-FIELD LATTICE BOLTZMANN STUDY WITH PARALLEL-GPU AMR Shinji Sakane, Tomohiro Takaki	MAKING TEMPERATURE FIELDS IN FLUID FLOWS VISIBLE FROM DISCRETE SENSOR DATA Michel Speetjens, Ruud Lensvelt, Henk Nijmeijer

16:45		<p>ESTIMATION OF THERMOPHYSICAL PROPERTIES OF A POUCH TYPE LI-ION BATTERY USING INVERSE METHODOLOGY</p> <p>Balaji C, Jithu J, Kasavajhula Naga Vasista, Suraj Kumar, Srinivasan, Balaji</p>	<p>CRYOGENIC QUENCHING PROCESS ENHANCEMENT THROUGH COATING AND MICROSTRUCTURE OPTIMIZATION</p> <p>Marco Graffiedi, Matteo Bucci, Francis Dent, Sepideh Khodaparast</p>	<p>X-RAY COMPUTED TOMOGRAPHY TRACKING OF CALCIUM CHLORIDE HEXAHYDRATE CRYSTALLISATION PROCESS</p> <p>Dario Guarda, Jorge Martinez Garcia, Benjamin Fenk, Damian Gwerder, Anastasia Stamatiou, Jörg Worlitschek, Simone Mancin, Philipp Schütz</p>	<p>PARAMETRIC STUDY FOR DETERMINATION OF NIGHTTIME SOLIDIFICATION CHARACTERISTICS OF BUILDING ACTIVE-PASSIVE SYSTEM WITH NIGHTTIME VENTILATION FOR FREE COOLING</p> <p>Eva Zavrl, Urban Tomc, Mohamed El Mankibi, Mateja Dovjak, Uroš Stritih</p>	<p>MULTI-PHASE-FIELD LATTICE BOLTZMANN SIMULATIONS OF SEMI-SOLID SIMPLE SHEAR DEFORMATION IN THIN FILM</p> <p>Namito Yamanaka, Shinji Sakane, Tomohiro Takaki</p>	<p>MODELLING OF THE REFRIGERANT DISTRIBUTION IN A CRITICALLY CHARGED PROPANE HEAT PUMP CYCLE FOR PERFORMANCE EVALUATION</p> <p>Jana Rogiers, Tanya Deblaere, Xander van Heule, Bernd Ameel, Steven Lecompte, Michel De Paepe</p>
17:00	<p>THERMAL PHOTON DRIVEN TRANSISTOR</p> <p>PHILIPPE Ben Abdallah</p>	<p>APPROXIMATE ANALYTICAL SOLUTION FOR SOLIDIFICATION OF PCM IN CYLINDRICAL GEOMETRY WITH TEMPERATURE-DEPENDENT THERMAL CONDUCTIVITY-PERTURBATION METHOD</p> <p>Milad Tajik Jamalabad, Cristobal Cortes</p>	<p>SPRAY COOLING OF MICROPILLARED STEEL PLATES: TWO-STAGE QUENCHING PHENOMENON</p> <p>Yutaku Kita, Taihei Matsunaga, Takaaki Ariyoshi, Hiroyuki Fukuda, Yasuyuki Takata, Masamichi Kohno</p>	<p>EXPERIMENTAL INVESTIGATIONS OF HYDROGEN IODIDE (HI) DECOMPOSITION PROCESS FOR DIFFERENT CATALYSTS AND VARIOUS TEMPERATURE CONDITIONS</p> <p>Piotr Jozwiak, Pawet Bocian, Patrycja Kowalik, Jarostaw Hercog</p>	<p>COMPARATIVE ANALYSIS OF THE BEHAVIOUR OF THE HOT WATER PRODUCTION SYSTEM OF AN INDOOR SWIMMING POOL</p> <p>F.J.S. Velasco, J. Giménez-Villa, Jose R. Garcia-Cascales, Fernando Illán-Gómez, Ramón A. Otón Martínez, J.P. Delgado Marín</p>	<p>PHASE FIELD SIMULATION OF SOLIDIFICATION IN HIGH ENTROPY ALLOYS</p> <p>Alexandre Viardin, Markus Apel, Thomas Bähr, Anna Schönell</p>	<p>IMPACT OF VARIATION OF THE COOLING SYSTEM OPERATING STRATEGY ON WASTE HEAT QUALITY AND ENERGY EFFICIENCY: A CASE STUDY FROM AN AIR-COOLED DATA CENTER</p> <p>Lorenzo Testa, Philip Stuart, Cathal O'Donnell, Tim Persoons</p>

17:15	<p>CONDUCTIVE THERMAL TRANSITOR WITH INSULATOR TO METAL PHASE TRANSITION MATERIALS</p> <p>Karl Joulain, Younès Ezzahri</p>	<p>SUSTAINABLE HEATING AND COOLING FOR RESIDENTIAL BUILDINGS: COAXIAL GROUND HEAT EXCHANGERS</p> <p>Fawad Ahmed, Nicola Massarotti, B Šarler</p>	<p>ENHANCED POOL BOILING HEAT TRANSFER WITH POROUS TIH-COATINGS PRODUCED BY COLD SPRAY METAL ADDITIVE MANUFACTURING</p> <p>Yan Chen, Alekos Ioannis Garivalis, Evgeny Shatskiy, Anthony Robinson, Paolo Di Marco, Rocco Lupoi</p>	<p>DESIGN OF AN ULTRAHIGH TEMPERATURE LIQUID METAL CENTRIFUGAL PUMP FOR THERMAL ENERGY STORAGE</p> <p>Kyle Buznitsky, Asegun S Henry, Mehdi Pishahang</p>	<p>COMPUTATIONAL INVESTIGATION OF THE EFFECT OF GEOMETRY AND FUEL COMPOSITION ON THE PERFORMANCE OF A SOLIDE OXIDE FUEL CELL</p> <p>Pedro Coelho, João Paulo Cardoso Peixeiro de Freitas, Ana Filipa Ferreira</p>	<p>TOWARDS A MACROSCOPIC MODEL OF DIFFUSIVE GRAIN INTERACTIONS DURING EQUIAXED DENDRITIC SOLIDIFICATION OF METAL ALLOYS</p> <p>Miha Založnik, Abdelhalim Chirouf, Alphonse Finel, Yann Le Bouar</p>	<p>CHARACTERISATION OF DIFFERENT DARKEN SAND PARTICLES AND BEHAVIOUR UNDER FLUIDIZED AND IRRADIATED CONDITIONS</p> <p>Leonel Mario Cerutti Cristaldo, Minerva Díaz Heras, José A. Almendros-Ibáñez, Jesús Canales Vázquez, Juan Carlos Pérez Flores</p>
17:30	<p>MANIPULATING THE THERMAL CONDUCTANCE BY APPLYING REVERSIBLE GAS-SOLID REACTIONS</p> <p>Jonina Felbinger, Marc Linder</p>	<p>EXPERIMENTAL INVESTIGATION OF THE SUPERCRITICAL HEAT TRANSFER OF SEVERAL LOW GWP REFRIGERANTS</p> <p>Jera Van Nieuwenhuysse, Steven Lecompte, Michel De Paepe</p>	<p>EFFECT OF COMPOSITION ON BUBBLE BEHAVIOUR DURING BOILING OF MIXTURES ON SUPERHYDROPHOBIC SURFACES WITH ARTIFICIAL CAVITIES</p> <p>Ningxi Zhang, Daniel Orejon, Khellil Sefiane</p>	<p>EXPERIMENTAL INVESTIGATIONS OF THE POTENTIAL OF ORGANIC SALT SOLUTIONS FOR APPLICATION IN PRESSURE-RETARDED OSMOSIS</p> <p>Piotr Łapka, Fabian Dietrich, Łukasz Cieslikiewicz, Piotr Furmański</p>	<p>FREE PISTON LINEAR GENERATOR EFFICIENCY EVALUATION USING 0D MODELING APPROACH</p> <p>Raffaele Saviano, Carlo Beatrice, Armando Maiello</p>	<p>ON THE OCCURRENCE OF RAPID SOLIDIFICATION IN ADDITIVE MANUFACTURING OF METALLIC ALLOYS</p> <p>Damien Tournet</p>	<p>OPTICAL CHARACTERIZATION OF A SOLAR CONCENTRATING DISH SYSTEM UP TO 2000 SUNS</p> <p>Clemens Suter, Saurabh Tembhurne, Isaac Holmes-Gentle, S H</p>

17:45	<p>OSCILLATING THERMAL SWITCH USING ELECTROSTATIC FORCES</p> <p>Nada Petelin, Borut Pečar, Danilo Vrtačnik, Urban Tomc, Andrej Kitanovski</p>	<p>MODELLING OF THE CONDUCTION-RADIATION MULTILAYER FLASH METHOD BY A FULLY STOCHASTIC APPROACH</p> <p>Loič Seyer, Franck Enguehard, Denis Rochais</p>	<p>SUPERBIPHILIC HIERARCHICAL ALUMINUM SURFACES FOR EXCEPTIONAL POOL BOILING PERFORMANCE</p> <p>Armin Hadžić, Matic Može, Matevž Zupančič, Iztok Golobič</p>	<p>ELEVATED TEMPERATURES AND PRESTRESSES ON EVOLVING YIELD SURFACES FOR MODELING EXPERIMENTAL DATA</p> <p>Hong-Ki Hong, Kai-Min Hou</p>	<p>3D CFD SIMULATION OF ROOM AIR TEMPERATURE AND VELOCITY DISTRIBUTION WITH CEILING FAN</p> <p>Trino Thomas, Sateesh Gedupudi</p>	<p>NUCLEATION STUDY OF XYLITOL AS PCM IN TWO DIFFERENT CRYSTALLIZATION SYSTEMS: A RHEOMETER AND A LAB-SCALE PROTOTYPE</p> <p>Miguel Navarro, Ana Lazaro, Monica Delgado, Gonzalo Diarce Belloso</p>	<p>EFFECTS OF ISOCHORIC FREEZING ON QUALITY CHARACTERISTICS OF RAW BOVINE MILK</p> <p>Alan Maida</p>
18:00	<p>THERMAL CONTROL CIRCUIT MODELLING WITH TCCBUILDER</p> <p>Katja Vozel, Katja Klinar, Nada Petelin, Andrej Kitanovski</p>	<p>TRACKING OF THE MELTING FRONT IN TUBE-IN-TUBE LATENT THERMAL ENERGY STORAGE HEAT EXCHANGERS</p> <p>Julie Van Zele, Maité Goderis, Wim Beyne, Kenny Couvreur, Michel De Paepe</p>	-	-	<p>MAGNETOCALORIC REFRIGERATOR WITH MAGNETIC PUMP AND LIQUID METALS</p> <p>Keerthivasan Rajamani, Bob Stolwijk</p>	-	-
18:15	-	<p>IMPROVING VIRTUAL HEAT TRANSFER DESCRIPTION OF DEVELOPED AND UNDEVELOPED ANNULAR GAP FLOWS AT HIGH TA NUMBERS</p> <p>Anton Žnidarčič Tomaž Katrašnik</p>	-	-	<p>EFFECT OF WATER INJECTOR LOCATION ON COMBUSTION AND PERFORMANCE OF AN HCCI ENGINE - A CFD ANALYSIS</p> <p>Bharat Naik, JM Mallikarjuna</p>	-	-

18:30	-	-	-	-	NUMERICAL INVESTIGATION OF DIFFERENT COOLING TECHNOLOGIES DURING HEATWAVES AND POWER OUTAGES IN CATALAN MEDITERRANEAN BUILDINGS Roser Capdevila Paramio, Núria Garrido	-	-
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Tuesday, 11 June 2024

08:00-14:00	Registration Foyer
9:00 – 9:45	Plenary lecture MULTIPHASE TRANSPORT PHENOMENA IN HIGH-TEMPERATURE SOLAR THERMAL SYSTEMS Wojciech Lipiński Chair: TBA Arnold Hall
9:45-10:30	Plenary lecture DIGITAL TWINS OF THERMAL SYSTEMS Perumal Nithiarasu Chair: TBA Arnold Hall
10:30-11:00	Coffee break Restaurant
11:00 – 11:45	Plenary lecture MULTISCALE MODELLING IN CONGENITAL HEART DISEASE Alain Kassab Chair: TBA Arnold Hall
11:45-12:30	Plenary lecture DATA-DRIVEN EVOLUTIONARY DEEP LEARNING IN HIGH TEMPERATURE BASIC OXYGEN STEELMAKING OPERATION Nirupam Chakraborti Chair: TBA Arnold Hall

12:30- 14:00	Lunch break Restaurant
14:00 – 18:00	Free afternoon for tours

Wednesday, 12 June 2024

08:00- 12:00	Registration Foyer
9:00 – 9:45	Plenary lecture MULTIPHASE/PHYSIC MODELLING OF SOLIDIFICATION WITH INDUSTRIAL RELEVANCE Andreas Ludwig Chair: TBA Arnold Hall
9:45- 10:30	Plenary lecture FAR AWAY, SO CLOSE: HIGH RESOLUTION INVESTIGATIONS OF BOILING HEAT TRANSFER, FROM CRYOGENIC FLUIDS TO HIGH-PRESSURE WATER Matteo Bucci Chair: TBA Arnold Hall
10:30 – 11:00	Coffee break Restaurant
11:00 – 12:30	Poster session Sonce Hall Zrak Hall

12:30-14:00	Lunch break Restaurant						
14:00 – 16:00	Arnold Hall 1	Arnold Hall 2	Sonce Hall	Zrak Hall	Voda Hall	Straža Hall 1	Straža Hall 2
	SpS6-3 Chair: Andrej Kitanovski	Heat transfer 3 Chair: TBA	SpS1-3: Condensation and measurement techniques Chair: Maria Rosaria Vetrano	SpS7-2: Thermochemical and Latent Chair: Anastasia Stamatiou	SpS3-1 Chair: Sara Rainieri	SpS2-2: Advances in meshfree methods Chair: C. S. Chen	Fluid flow 2 Chair: TBA
14:00	Keynote lecture RIDING THE THERMAL WAVE: A REVIEW OF MATERIALS FOR THERMAL SWITCHES Katja Klinar, Katja Vozel, Andrej Kitanovski	SIMPLIFIED COMPUTATIONAL MODEL OF THE PRIMARY AND SECONDARY FREEZE-DRYING PROCESS OF AGRICULTURE AND MARINE FOODS Andrzej J. Nowak, Edyta Piechnik, Michal Stebel	MEASURING LIQUID FILM THICKNESS DURING DOWNFLOW CONDENSATION IN A MINICHANNEL Davide Del Col, Arianna Berto, Marco Azzolin, Pascal Lavieille, Stefano Bortolin, Marc Miscevic	CHARACTERIZATION OF HYDRATION LEVELS OF SALT HYDRATES USING X-RAY COMPUTED TOMOGRAPHY Benjamin Fenk, Anastasia Stamatiou, Dario Guarda, Jorge Martinez Garcia, Philipp Schütz, Damian Gwerder, Poppy O'Neill, Rebecca Ravotti, Simone Mancin, Ludger Josef Fischer, Jörg Worlitschek	ENHANCING FLUID DISTRIBUTION IN ADDITIVELY MANUFACTURED HEAT EXCHANGERS USING AUTOGENERATED GEOMETRIES Joel Kimmich	Keynote lecture MULTI-LEVEL METHOD OF FUNDAMENTAL SOLUTIONS FOR SOLVING POLYHARMONIC PROBLEMS Andreas Karageorghis, C.S. Chen, Pihua Wen	A CHECKERBOARD-FREE SYMMETRY-PRESERVING CONSERVATIVE METHOD FOR MAGNETOHYDRODYNAMIC FLOWS Johannes Arend Hopman, Francesc Xavier Trias Miquel, Joaquim Rigola

14:15		<p>NUMERICAL MODEL FOR INVESTIGATING LOCAL HEAT TRANSFER IN CROSS-HELICAL CORRUGATED PIPES Pamela Vocale, Ferdinando Menale, Luca Pagliarini, Fabio Bozzoli</p>	<p>ANALYSIS OF MICROSCALE INNER-GROOVED TUBES DURING CONDENSATION OF LOW-GWP R1234ZE(E): FLOW REGIME VISUALIZATION AND ENHANCEMENT FACTORS Andrea Diani, Nima Irannezhad</p>	<p>WATER ADSORPTION ON MICROPOROUS CHABAZITES AS THERMAL ENERGY STORAGE MATERIALS Alenka Ristić, Suzana Mal, Natasa Zabukovec Logar</p>	<p>EFFECTS OF MORPHOLOGICAL FEATURES OF BUTTERFLY-SHAPED INSERTS ON THERMAL PERFORMANCE ENHANCEMENT IN TUBULAR HEAT EXCHANGERS: A NUMERICAL STUDY Luca Pagliarini, Fabio Bozzoli, Luca Cattani, Pamela Vocale, Sara Rainieri</p>		<p>ON A PROPER TENSORIAL SUBGRID HEAT FLUX MODEL FOR LES Francesc Xavier Trias Miquel, Andrey Gorobets, A. Oliva</p>
14:30	<p>MAGNETOCALORIC COOLING WITH FLUIDIC THERMAL SWITCHES BASED ON ELECTROWETTING EFFECT Urban Tomc, Blaž Velkavrh, Hana Uršič, Lukas Beyer, Jens Freudenberger, Klara Lünser, Enric Stern Taulats, Lluís Manosa, Andrej Kitanovski</p>	<p>THERMAL ANALYSIS OF AN INTEGRATED MOTOR DRIVE WITH A SWITCHING CELL ARRAY POWER CONVERTER Mattia Grespan, Elisabet Mas de les Valls, Sergio Busquets Monge, Xavier Jordà, Diego Angeli</p>	<p>EXPERIMENTAL INVESTIGATION OF CONDENSATION HEAT TRANSFER ON GROOVED ALUMINUM SURFACES Evgeny Shatskiy, Parth S Kumavat, Seamus O'shaughnessy</p>	<p>OPTIMIZING MOF PROPERTIES FOR SEASONAL HEAT STORAGE: A MACHINE LEARNING APPROACH Eliodoro Chiavazzo, Giovanni Trezza, Luca Bergamasco, Matteo Fasano</p>	<p>FORCED AIR FLOW THROUGH A RECTANGULAR CHANNEL WITH 3D TURBULENCE ENHANCERS: VISUALIZATION OF FLOW STRUCTURES BY LASER SHEET SCATTERING Luigi Vitali, Maria Corti, Pasqualino Gramazio, Damiano Fustinoni, Alfonso Niro</p>	<p>FUNCTIONAL GRADATION OF MATERIAL COEFFICIENTS AND SIZE -EFFECTS IN HEAT CONDUCTION: NUMERICAL SIMULATIONS Vladimir Sladek, Jan Sladek</p>	<p>NUMERICAL INVESTIGATION OF AIR-FLOW DISTRIBUTION WITHIN AN INDUSTRIAL KILN FOR SANITARY WARE MANUFACTURE Eugenio Schillaci, Jesus Ruano, Jiannan Liu, Joaquim Rigola, Carlos David Perez Segarra</p>

14:45	<p>MIXED CONVECTION BY BUOYANCY AND MAGNETOTHERMAL FORCES</p> <p>Masayuki Kaneda, Shunya Yoshimura, Kyosuke Urabe, Kazuhiko Suga</p>	<p>DNS OF MARANGONI EFFECTS ON A SUSPENSION OF DROPLETS IN MICROGRAVITY USING THE UNSTRUCTURED CONSERVATIVE LEVEL-SET METHOD</p> <p>Nestor Vinicio Balcazar Arciniega, Joaquim Rigola, A. Oliva</p>	<p>INVESTIGATION OF DROPWISE CONDENSATION OF WATER THROUGH AN EFFICIENT INDIVIDUAL-BASED MODEL</p> <p>Stefano Bortolin, Antonio Abbatecola, Matteo Mirafiori, Marco Tancon, Davide Del Col</p>	<p>ADVANCING THERMOCHEMICAL STORAGE: SYNTHESIS AND CHARACTERIZATION OF CEMENT-BASED COMPOSITE MATERIALS.</p> <p>Alessio Mondello, Matteo Morciano, Luca Lavagna, Matteo Pavese, Eliodoro Chiavazzo</p>	<p>A COMBINED EXPERIMENTAL AND NUMERICAL INVESTIGATION OF THE POTENTIAL FOR HEAT TRANSFER ENHANCEMENT IN A RECTANGULAR MINICHANNEL USING HALF RECTIFIED PULSATING LAMINAR FLOWS</p> <p>Parth S Kumavat</p>	<p>NUMERICAL SOLUTIONS OF DIRECT AND INVERSE THREE-DIMENSIONAL BOUNDARY VALUE PROBLEMS BY USING THE METHOD OF FUNDAMENTAL SOLUTIONS AND THE PARTICLE SWARM OPTIMIZATION</p> <p>Chia-Ming Fan, Fu-Li Chang, Chiung-Lin Chu</p>	<p>NUMERICAL SIMULATION OF MULTIPHASE FLOW IN HYBRID POROUS STRUCTURE</p> <p>Majid Eshagh Nimvari, Michael Gibbons</p>
15:00	<p>AN IMPROVED PHYSICS-INFORMED NEURAL NETWORKS FOR TRANSIENT HEAT CONDUCTION ANALYSIS IN FUNCTIONALLY GRADED MATERIALS</p> <p>Zhuojia Fu, Shuainan Liu, Wenzhi Xu, Yuan Guo</p>	<p>EXERGY ANALYSIS OF MULTI-FLUID, TWO-PHASE IMMERSION COOLING SYSTEM FOR COOLING OF ELECTRONIC COMPONENTS</p> <p>Balaji C, V.B. Krishnadasan, Pratheek Suresh</p>	<p>DRAG EFFECT OF STEAM FLOW ON DROPLET REMOVAL DURING DROPWISE CONDENSATION AT DIFFERENT SURFACE INCLINATIONS</p> <p>Andrea Diani, Nima Irannezhad</p>	<p>STUDY OF THE PHASE CHANGE PROCESSES OF ENCAPSULATED PHASE CHANGE MATERIAL FOR SOLAR THERMAL ENERGY STORAGE IN DOMESTIC HOT WATER PRODUCTION</p> <p>Cristina Bianqui, Antonio Viedma, Alberto Egea, Alberto García Pinar</p>	<p>ENHANCING THE DEGREES OF FREEDOM OF TOPOLOGY OPTIMIZATION VIA VARIABLE-POROSITY METAL FOAMS: DESIGN OF HEAT CONDUCTION PATHS IN A VOLUME-TO-POINT PROBLEM</p> <p>Gerardo Maria Mauro, Nicola Bianco, Andrea Fragnito, Marcello Iasiello</p>	<p>APPLICATION OF THE LOCALIZED METHOD OF FUNDAMENTAL SOLUTIONS TO HEAT TRANSFER PROBLEMS</p> <p>Csaba Gáspár</p>	<p>CAVITATION BUBBLE INTERACTION WITH COMPLIANT STRUCTURES ON A MICROSCALE</p> <p>Jure Zevnik, Žiga Pandur, David Stopar, Matevž Dular</p>

15:15	<p>ELECTRONIC COOLING ABOVE 1.5 K Joel Hättinen, Alberto Ronzani, Renan Loreto, Emma Mykkänen, Klaara Viisanen, Tuure Rantanen, Joel Geisor, Antti Kemppinen, Mika Prunila</p>	<p>THERMAL MANAGEMENT OF A COMPLEX SYSTEM ON A CHIP USING MULTIPLE PCM BASED HEAT SINK Balaji C, Srinivas Ramineni, Kasavajhula Naga Vasista</p>	<p>ADVANCEMENTS IN LASER-BASED SPATIOTEMPORAL MEASUREMENTS OF FLOW BOILING Surya Narayan, Zengchao Chen, Aleksei S. Lobasov, Konstantin S. Pervunin, Matteo Bucci, Christos Markides</p>	<p>NUMERICAL INVESTIGATION OF PHASE CHANGE MATERIAL INTEGRATION IN STRUCTURED THERMOCLINE SYSTEMS FOR CONCENTRATED SOLAR POWER Oriol Sanmarti Perona, Jordi Vera Fernandez, Santiago Torras Ortiz, Carlos David Perez Segarra</p>	<p>CFD SIMULATION AND GEOMETRIC OPTIMIZATION OF A NOVEL BAFFLE HEAT SINK FOR POWER ELECTRONICS COOLING Ilya T'Jollyn, Jana Rogiers, Jasper Nonneman, Michel De Paepe</p>	<p>AN EFFICIENT LOCALIZED COLLOCATION METHOD BASED ON NONSINGULAR FUNDAMENTAL SOLUTIONS FOR HEAT CONDUCTION ANALYSIS IN FUNCTIONALLY GRADED MATERIALS Shuainan Liu, Zhuojia Fu, Qingguo Liu</p>	<p>THERMODYNAMIC EFFECTS IN CAVITATING FLOW Martin Petkovšek</p>
15:30	<p>A CONVOLUTIONAL MODEL FOR ESTIMATING THE JUNCTION TEMPERATURES OF SIC MOSFET TRANSISTORS Ali El Arabi, Denis Maillet, Nicolas Blet, Benjamin Remy</p>	<p>THERMAL PERFORMANCE AGAINST GRAVITY OF AN ALSI10 AM HEAT PIPE WITH A DIAMOND LATTICE STRUCTURE WICK Luigi Vitali, Simone Menini, Manfredo Guilizzoni, Alfonso Niro</p>	<p>THE EFFECTIVE USE OF FOCUSED SHADOWGRAPHY FOR SINGLE BUBBLE NUCLEATE POOL BOILING INVESTIGATIONS Marilize Everts, Matthias Welzl, Dieter Brüggemann</p>	<p>ASSESSING THE IMPACT OF COPPER WOOLS ON THE DISCHARGING PROCESS OF A PHASE CHANGE MATERIAL-BASED HEAT EXCHANGER PROTOTYPE Alessandro Ribezzo, Sara Risco Amigó, Saranprabhu Mani Kala, Emiliano Borri, Matteo Morciano, Luca Bergamasco, Gabriel Zsembinszki, Matteo Fasano, Eliodoro Chiavazzo, Luisa F. Cabeza</p>	<p>NUMERICAL SIMULATION-BASED DESIGN OF OPTIMIZED SURFACES FOR CONDENSATION HEAT TRANSFER Arianna Berto, Mario Junio Gabellone, Nicolò Mattiuzzo, Stefano Bortolin, Davide Del Col</p>	<p>MESHFREE BOUNDARY INTEGRAL EQUATION METHOD FOR CALCULATING THE CONDUCTION SHAPE FACTOR OF EXCHANGER TUBES CONTAINING SLITS Jia-Wei Lee, Yang Homg Wen, Jeng-Tzong Chen</p>	<p>INVESTIGATION OF UNSTEADY SKIN FRICTION EFFECTS IN TRANSIENT TWO-PHASE PIPE FLOW Anton Bergant</p>

15:45	<p>2D TRANSITION METAL DICHALCOGENIDES AS HIGHLY ANISOTROPIC AND COMPACT THERMAL BARRIERS FOR THERMAL MANAGEMENT APPLICATIONS</p> <p>Rem Elnahas, Jimmy Faria Albanese, Miguel Muñoz Rojo</p>	<p>NUMERICAL ANALYSIS OF TRANSPORT PHENOMENA IN A STEAM REFORMING REACTOR WITH OPTIMAL MULTI-SEGMENTS CATALYST DISTRIBUTION</p> <p>Janusz Szmyd, Marcin Pajak, Grzegorz Brus, Shinji Kimijima</p>	<p>VAPOR BUBBLE ON A SINGLE NUCLEATION SITE : TEMPERATURE AND HEAT FLUX MEASUREMENTS</p> <p>Himanshi Kharkwal, Magali Barthes, François Lanzetta, Lounès Tadrist</p>	-	<p>A NOVEL TYPE OF ADDITIVELY MANUFACTURED HIGH PRESSURE MINI-CHANNEL HEAT EXCHANGER FOR PRECOOLING IN HYDROGEN REFUELING STATIONS</p> <p>Robin Kahlfeld, Henrik Müntefering, Felix Müller, Stephan Kabelac, Ruben Steinhoff</p>	<p>AN ADAPTIVE ONE-STEP FICTITIOUS MPS-MFS USING EFFECTIVE CONDITION NUMBERS</p> <p>James Snead, C.S. Chen, Božidar Šarler</p>	<p>INFLUENCE OF BAFFLE HEIGHT ON THE IN-CYLINDER FLOWS AND PERFORMANCE CHARACTERISTICS OF A GASOLINE DIRECT INJECTION ENGINE - A CFD INVESTIGATION</p> <p>Vishal V, JM Mallikarjuna</p>
16:00-16:30	<p>Coffee break Foyer</p>						
16:30-18:30	Arnold Hall 1	Arnold Hall 2	Sonce Hall	Zrak Hall	Voda Hall	Straža Hall 1	Straža Hall 2
	<p>SpS6-4 Chair: Miguel Muñoz Rojo</p>	<p>Heat transfer 4 Chair: TBA</p>	<p>SpS1-4: Numerical studies and prognostics Chair: Catherine Colin</p>	<p>Heat transfer 5 Chair: TBA</p>	<p>SpS3-2 Chair: Sara Rainieri</p>	<p>SpS2-3: Advances in meshfree methods with application Chair: Andreas Karageorghis</p>	<p>SpS5-2: Flow phenomena and heat transfer in casting processes Chair: Miha Založnik</p>

16:30	<p>OPPORTUNITIES FOR THERMALLY-AWARE DEVICES AND CONTROL IN ALGAN/GAN ON SI(C) POWER ELECTRONIC SYSTEMS</p> <p>Karen Dowling, Lex Pardon, Ananth Saran Yalamarthy, Miguel Muñoz Rojo, Debbie Senesky</p>	<p>TEMPERATURE FORECASTING IN TWO-PHASE IMMERSION-COOLED DATA CENTRES: A DEEP LEARNING APPROACH</p> <p>Balaji C, Pratheek Suresh, Sai Ashwin Ramaseshan</p>	<p>A HYBRID ATOMISTIC-CONTINUUM FRAMEWORK FOR MULTISCALE SIMULATIONS OF BOILING</p> <p>Mirco Magnini, Edward Smith, Gabriele Gennari, Gavin Pringle</p>	<p>EXPERIMENTAL INVESTIGATION OF EFFECTS OF CONVECTIVE HEAT TRANSFER AND THERMAL PERFORMANCE OF IMPINGING JET ON A METAL PLATE WITH POROUS MEDIA</p> <p>Abdul Qadeer Khoso, Atiq ur Rehman Fareedi, Hurmat Khan, Bernardo Buonomo, Oronzio Manca, Sergio Nardini</p>	<p>A NEW TEST SECTION MADE VIA ADDITIVE MANUFACTURING TO PERFORM LOCAL HEAT FLUX MEASUREMENTS</p> <p>Marco Azzolin, Gianluca Cattelan, Stefano Bortolin, Davide Del Col</p>	<p>AN IMPROVED TWO-STEP MPS-MFS GHOST POINT METHOD WITH EFFECTIVE CONDITION NUMBER</p> <p>C.S. Chen, Lionel Amuzu, James Snead</p>	<p>ON THE CONDITIONS FOR THE OCCURRENCE OF CRYSTAL AVALANCHES DURING ALLOY SOLIDIFICATION</p> <p>Andreas Ludwig, Golshan Shayesteh, Mihaela Stefan-Kharicha, Kharicha abdellah, Menghuai Wu</p>
16:45	<p>MODELING THE EFFECT OF THERMAL CONTACT RESISTANCE ON THE CONDUCTION OF 3D FIBROUS MATERIALS IN RELATION TO FIBER PROPERTIES</p> <p>Clémence Gaunand, Yannick De Wilde, Adrien François, Veneta Grigorova-Moutiers, Karl Joulain</p>	<p>SENSITIVITY OF AN ELECTRICAL IMPEDANCE-BASED SENSOR FOR THE LIQUID FRACTION ESTIMATION DURING MELTING AND SOLIDIFICATION INSIDE A VERTICAL RECTANGULAR ENCLOSURE</p> <p>Carolina Mira Hernandez, Simone Mancin</p>	<p>SUBGRID MOVING CONTACT LINE MODEL FOR DIRECT NUMERICAL SIMULATION OF BUBBLE DYNAMICS IN POOL BOILING OF PURE FLUIDS</p> <p>Vadim Nikolayev, Linkai Wei, Guillaume Bois</p>	<p>EFFECT OF USING AN IONIC LIQUID AS ADDITIVE IN WATER/LIBR SOLUTION FOR A HORIZONTAL FALLING FILM ABSORBER</p> <p>Hussain Ahmed Tariq, Mahmoud Bourouis, Alberto Coronas</p>	<p>EFFECT OF THE PLATES GEOMETRY ON THE PERFORMANCE OF A CROSS-FLOW RECUPERATOR FOR INDIRECT EVAPORATIVE COOLING SYSTEMS</p> <p>Roberta Caruana, Luca Marocco, Stefano De Antonellis, Manfredo Guilizzoni</p>	<p>AN EFFECTIVE ALGORITHM FOR COMPUTING THE EFFECTIVE CONDITION NUMBER WITH APPLICATION TO RBFS</p> <p>Tsung-Lin Lee, Amir Noorizadegan</p>	<p>A NEW HYBRID LOCAL RADIAL BASIS FUNCTION COLLOCATION METHOD FOR 2.5D THERMO-MECHANICAL MODELLING OF CONTINUOUS CASTING OF STEEL</p> <p>Gašper Vuga, Tadej Dobravec, Boštjan Mavrič, Božidar Šarler</p>

17:00	<p>CONTACT RESISTANCE EFFECTS ON CURRENT PATH AND THERMAL CHARACTERISTICS OF AG-NANOWIRE NETWORK</p> <p>Kazuya Tatsumi, Yuta Sugihara, Kanji Tamai, Reiko Kuriyama</p>	<p>VERIFICATION AND CALIBRATION OF TWO-FLUID MODELS FOR THE ANALYSIS OF PRESSURIZATION SCENARIOS IN LH2 TANKS</p> <p>Eugenio Schillaci, Ahmad Amani, Carles Oliet, Joaquim Rigola, Jesus Castro</p>	<p>DIRECT NUMERICAL SIMULATION OF SINGLE BUBBLE DYNAMICS IN NUCLEATE POOL BOILING WITH MICRO-REGION MODELING AND THERMAL COUPLING TO A SOLID WALL</p> <p>Linkai Wei, Guillaume Bois, Vadim Nikolayev</p>	<p>NUMERICAL INSIGHTS INTO TURBULENT PENETRATIVE CONVECTION OVER LOCALIZED HEAT SOURCES</p> <p>Sasa Kenjeres, Amir Zilic, Kemo Hanjalic</p>	<p>NUMERICAL STUDY OF SOLAR EVAPORATION IN 3D PRINTED STRUCTURES</p> <p>Romain Fillet, Vincent Nicolas, Alain Celzard, Vanessa Fierro</p>	<p>IMPROVED LINEAR NOTCH MECHANICS FOR LIGHTWEIGHT DESIGN USING MFS</p> <p>Wataru Fujisaki</p>	<p>EFFECT OF MARANGONI FLOW DURING THE SOLIDIFICATION OF A FE-0.82WT.%C STEEL ALLOY</p> <p>Ibrahim Sari, Menghuai Wu, Kharicha Abdellah</p>
17:15	<p>EXPERIMENTAL AND PORE SCALE NUMERICAL CHARACTERIZATION OF MULTI-MODE HEAT TRANSFER IN POROUS CERAMICS EXPOSED TO A TRANSVERSE HEAT FLUX</p> <p>Alexandre Briclot, Pierre LEA, Clemens Suter, Jean-François Henry, S H, Jaona Harifidy Randrianalisoa</p>	<p>COMPARISON BETWEEN DNS AND RANS APPROACHES FOR LIQUID METAL FLOWS AROUND A SQUARE ROD BUNDLE</p> <p>Danila Trane, Mattia Grespan, Diego Angeli</p>	<p>DEVELOPMENT OF PHYSICALLY BASED MODELLING OF BUBBLE BEHAVIOUR FOR SUBCOOLED FLOW BOILING APPLICATIONS.</p> <p>Jakub Cranmer, Giovanni Giustini, Alex Skillen, Ryan Tunstall</p>	<p>NUMERICAL MODELLING OF A SOLAR THERMOCHEMICAL HEAT STORAGE SYSTEM FOR A CONCENTRATED SOLAR POWER PLANT</p> <p>Abhishek Singh, Zhen Cao, Ramin Roushenas, Bas J. Leeuw</p>	<p>NUMERICAL INVESTIGATION OF GYROID HEAT EXCHANGER</p> <p>Arul Prakash Karaiyan, Bhagaban Jena, G. Saravana Kumar, Vipul Dharmendra Choudhari</p>	<p>JOULE HEATING ANALYSES IN ELECTRICALLY CONDUCTIVE MICRO/NANO-SIZED STRUCTURES</p> <p>Jan Sladek, Vladimir Sladek, Miroslav Repka</p>	<p>EFFECTS OF THE ASYMMETRIC AND OSCILLATING TURBULENT MELT FLOW ON THE HEAT TRANSFER AND SOLIDIFICATION INSIDE THE THIN SLAB CONTINUOUS CASTING MOLD UNDER THE APPLIED ELECTROMAGNETIC BRAKE</p> <p>Alexander Vakhrushev, Kharicha Abdellah, Menghuai Wu, Yong Tang, Gernot Hackl, Josef Watzinger, Ebrahim Karimi Sibaki</p>

17:30	<p>FAST THERMODYNAMIC SIMULATION OF ELECTRICAL CONTROL CABINETS VIA THERMAL RESISTOR NETWORKS Daniel Haag, Prof. Dr.-Ing. Konstantinos Stergiaropoulos</p>	<p>ENHANCING THERMAL MANAGEMENT IN CYLINDRICAL LI-ION BATTERY THROUGH PCM INTEGRATION WITH VARIABLE CONTACT AREA Ekta Singh Shrinet, Lalit Kumar</p>	<p>HYDRODYNAMIC CHARACTERISTICS OF THE MICROLAYER UNDER BOILING VAPOUR BUBBLES Xiaolong Zhang, Ismail El Mellas, Mirco Magnini</p>	<p>EXPERIMENTAL INVESTIGATION OF PHASE CHANGE MATERIAL (PCM) THERMAL ENERGY STORAGE WITH AND WITHOUT METAL FOAM AT DIFFERENT TEMPERATURES Abdul Qadeer Khoso, Atiq ur Rehman Fareedi, Bernardo Buonomo, Abdul Qadeer Khoso, Hurmat Khan, Oronzio Manca, Sergio Nardini</p>	<p>MEASUREMENT OF EFFECTIVE THERMAL CONDUCTIVITY OF COMPOSITE POWDERS OF 2D MATERIALS AND METALS FOR ADDITIVE MANUFACTURING Hyunjong Lee, Davoud Jafari, Bernard Geurts, Wessel Wits</p>	<p>RBF WENO RECONSTRUCTIONS WITH ADAPTIVE ORDER USING A SIMPLIFIED SMOOTHNESS INDICATOR AND APPLICATIONS TO CONSERVATION LAWS Chiehsen Huang</p>	<p>INFLUENCE OF THE CORIOLIS FORCE ON THE SOLIDIFICATION OF A FE-0.82WT.%C ALLOY Ibrahim Sari, Menghuai Wu, kharicha abdellah</p>
17:45	<p>HEAT TRANSPORT ACROSS NANOMETRE-SIZED GAPS Oscar Mateos, Pablo M. Martínez, J. G. Vilhena, Juan Cuevas</p>	<p>A COMBINED EXPERIMENTAL AND NUMERICAL INVESTIGATION OF THE POTENTIAL FOR HEAT TRANSFER ENHANCEMENT IN A RECTANGULAR MINICHANNEL USING HALF RECTIFIED PULSATING LAMINAR FLOWS Parth S Kumavat, Sajad Alimohammadi, Seamus O'Shaughnessy</p>	<p>REMAINING USEFUL LIFE PROGNOSTICS DURING BOILING-INDUCED SURFACE DEGRADATION Jure Berce, Klara Arhar, Matic Može, Matevž Zupančič, Iztok Golobič</p>	<p>TOPOLOGY OPTIMIZATION OF PCM-BASED FINNED HEAT SINK FOR COOLING A SYSTEM-ON-CHIP Balaji C, Sayan Majumder, Azharuddin Mohammad</p>	<p>FORCED AIR FLOW THROUGH A RECTANGULAR CHANNEL WITH 3D TURBULENCE ENHANCERS: FLUID-DYNAMICS AND THERMAL ANALYSIS BY LES Maria Corti, Luigi Vitali, Pasqualino Gramazio, Damiano Fustinoni, Alfonso Niro</p>	<p>SOLVING NONLINEAR TIME-DEPENDENT PDES USING POLYHARMONIC SPLINES AND POLYNOMIALS Guangming Yao, Shawn Murphy, Trevor Francisco, Olaoluwa Ogunleye</p>	<p>INTELLIGENT CASTING BASED ON HOLLOW MOLD AND CLOSED LOOP COOLING CONTROL Jinwu Kang, Baolin Liu, Jingying Xu, Xiaolong Wang, Jiwu Wang</p>

18:00	<p>BALLISTIC-DIFFUSIVE HEAT TRANSPORT CROSSOVER IN MOLECULAR JUNCTIONS</p> <p>Pablo M. Martínez, Oscar Mateos, Juan Cuevas, J. G. Vilhena</p>	<p>STUDY OF THE THERMAL DYNAMIC BEHAVIOR OF A RECTANGULAR ENCLOSURE WITH FINS EMBEDDED IN PCM</p> <p>Abderrahmane El Hanafi, Nicolas Blet, Abdelhamid Kheiri, Benjamin Remy</p>	-	<p>CFD DESIGN AND OPTIMIZATION OF A MULTI-PROBE DEVICE FOR TEMPERATURE MEASUREMENTS IN WASTE-TO-ENERGY PLANTS</p> <p>Giorgio Grossi, Fausto Arpino, Christian Canale, Gino Cortellessa Tonino Lombardi</p>	<p>EXPERIMENTAL INVESTIGATION OF THE COOLING PERFORMANCE OF AN ADDITIVELY MANUFACTURED PROTOTYPE FOR NUCLEAR FUSION ENERGY APPLICATION</p> <p>Giacomo Favero, Massimiliano Bonesso, Razvan Dima, Luca Doretti, Adriano Pepato, Giulia Righetti, Simone Mancin</p>	-	<p>DETERMINATION OF TRANSIENT HEAT TRANSFER BY COOLING CHANNEL IN HIGH-PRESSURE DIE CASTING USING INVERSE METHOD</p> <p>Jan Bohacek, Krystof Mraz, Jiri Hvozda, Alexander Vakhrushev, Ebrahim Karimi Sibaki</p>
18:15	-	-	-	-	<p>ON A FOURIER SERIES MODEL FOR STRATIFIED LIQUID-LIQUID FLOW THROUGH MICROCHANNELS WITH GROOVED WALLS</p> <p>Mainendra Dewangan, Tim Persoons</p>	-	-

18:30	-	-	-	-	<p>THERMAL MANAGEMENT AND OPTIMISATION OF MULTICHIP ELECTRONIC MODULE WITH HEAT SINK- ASSISTED IMMERSION COOLING Balaji C, Pratheek Suresh, Kasavajhula Naga Vasista</p>	-	-
20:00 – 22:00	Conference dinner at Grand Hotel Toplice						

Thursday, 13 June 2024

08:00-10:00	Registration Foyer						
9:00 – 11:30	Arnold Hall 1	Arnold Hall 2	Sonce Hall	Zrak Hall	Voda Hall	Straža Hall 1	Straža Hall 2
	Application & Computing Chair: TBA	Heat transfer 6 Chair: TBA	SpS2-4: Advances in meshfree methods Chair: Elisabeth Larsson	SpS7-3: Modeling & Build and Clothing Chairs: Dominic Groulx & Sebastian Gamish	SpS4 Chairs: Alain Kassab & Ryszard Biatecki	-	Heat transfer 7 Chair: TBA
9:00	ON THE VALIDATION OF NUMERICAL SIMULATION WITH EXPERIMENTAL RESULTS ON COMPRESSIBLE TURBULENT FLOW IN AN INERTIAL PARTICLE SEPARATOR DEVICE Linda Bahramian, Ahmad Amani, Joaquim Rigola, Carles Oliet, Carlos David Perez Segarra	DESIGN OF THERMAL MANAGEMENT SYSTEM FOR A BATTERY PACK WITH MALFUNCTIONING BATTERY: - A NUMERICAL PARAMETRIC STUDY Balaji C Sayan Majumder, Rajesh Akula, Bommadevara Sai Vennela	SOLUTIONS TO FULL VERY ILL-CONDITIONED EQUATION SYSTEMS Edward Kansa	MELTING OF A PHASE CHANGE MATERIAL IN A RECTANGULAR CAVITY IN THE PRESENCE OF METALLIC FINS Claudia Naldi, Giulia Martino, Matteo Dongellini, Cesare Biserni, Gian Luca Morini, Sylvie Lorente	Keynote lecture IN-VITRO ANALYSIS OF THE NOVEL SELF-POWERED FONTAN CIRCULATION VIA A POD-TRAINED RBF INTERPOLATION NETWORK Arka Das, Ray Prather, Purdy Clayton, Keyu Vadaliya, Anthony Damon, Levi Blumer, Martin Cinelli, Eduardo	-	MODELLING TURBULENT GAS-SOLID HEAT TRANSFER IN A PACKED BED HEAT EXCHANGER: EXPERIMENT AND VALIDATION Jérémie Lagarde, Harry Simpson

9:15	<p>PUMPED PHASE-TRANSITIONAL CO₂ LOOP FOR MULTI-COMPONENT ELECTRONICS COOLING</p> <p>Wessel Wits, Myron Middelhuis, Miguel Muñoz Rojo</p>	<p>EXPERIMENTAL STUDY OF CONVECTIVE HEAT TRANSFER IN ADDITIVE MANUFACTURED MINICHANNELS: THE IMPACT OF THE PRANDTL NUMBER</p> <p>Mohammadreza Kadivar, Luca Cozzarolo, Mats Kinell, Karl-Johan Nogenmyr, David Tormey, Gerard McGranaghan</p>	<p>LESSONS FROM ACCELERATING AN RBF-FD PHASE-FIELD MODEL OF DENDRITIC GROWTH ON GPUS</p> <p>Boštjan Mavrič, Tadej Dobravec, Božidar Šarler</p>	<p>LIMITATIONS OF THE ENTHALPY-POROSITY METHOD FOR NUMERICAL SIMULATION OF CLOSE-CONTACT MELTING ON ASYMMETRIC SURFACES</p> <p>Victor Van Riet, Tomer Shockner, Wim Beyne, Gennady Ziskind, Michel De Paepe, Joris Degroote</p>	Divo, Alain Kassab, William DeCampli	-	<p>LOW-ORDER DESIGN MODELS FOR LATENT THERMAL ENERGY STORAGE</p> <p>Wim Beyne, Joris Degroote, Michel De Paepe</p>
9:30	<p>LOW ENTHALPY GEOTHERMAL SOURCE FOR SUSTAINABLE ENERGY PRODUCTION IN SMALL ISLANDS: A REAL CASE STUDY</p> <p>Simona Di Fraia, Nicola Massarotti, Laura Vanoli</p>	<p>REVIEW OF "COLD SHOCK" CASES IN OPERATION OF LOOP HEAT PIPES AND RELATED THERMAL INSTABILITIES</p> <p>Luka Ivanovskis, Donatas Mishkinis</p>	<p>ENHANCING MESHFREE METHODS WITH RBFS: AN APPROACH USING APPROXIMATE LEAST SQUARES SOLUTIONS</p> <p>Leihsin Kuo, C.S. Chen</p>	<p>NUMERICAL MODELLING OF THERMAL HYSTERESIS IN MELTING AND SOLIDIFICATION OF PHASE CHANGE MATERIALS</p> <p>Maité Goderis, Adam Buruzs, Fabrizia Giordano, Tilman Barz, Wim Beyne, Michel De Paepe</p>	<p>THERMAL MANAGEMENT SYSTEM FOR CELL-BIOLOGY EXPERIMENTAL SETUP STUDYING CALCIUM SIGNALING IN MICROGRAVITY SETTINGS</p> <p>Adina Hochuli, Simon Wuest, Benjamin Fenk, Patrick Estermann, David Schiffmann, Sebastian Ammann, Christoph Zumbühl, Raphael Kummer, Maik Böhmer, Anastasia Stamatiou</p>	-	<p>EVALUATION OF THE EFFECTS OF VARIOUS FAN PARAMETERS ON THE COOKING PROCESS IN COMMERCIAL COOKING OVENS</p> <p>Remzi Timur, Zafer Kahraman, Murat Haci, Hakan Soyhan</p>

9:45	<p>BUILDING A REDUCED ORDER MODEL FROM CFD DATA ON A FULL PLANT TO EVALUATE OPTIMAL CLIMATE CONDITIONS</p> <p>Wito Plas, Michel De Paepe, Toon Demeester</p>	<p>FREE-SURFACE JET HEAT TRANSFER REVISITED: FROM AN INDIFFERENT REGIME TO THE RE-EMERGENCE OF THE OFF-CENTER PEAK</p> <p>Herman Haustein, Ron Harnik</p>	<p>OPTIMAL DESIGN IN 2D FORCED CONVECTION PROBLEM USING GENERALIZED FINITE DIFFERENCE METHOD AND PARTICLE SWARM OPTIMIZATION</p> <p>Chiung-Lin Chu, Chia-Ming Fan</p>	<p>MODELING OF PHASE CHANGE HYSTERESIS DURING PARTIAL PHASE CHANGE WITH THE "SHIFT"-METHOD</p> <p>Sebastian Gamisch, Stefan Gschwander</p>	<p>NON-INVASIVE THERMAL MEASUREMENTS DURING NEWBORN'S THERAPEUTIC HYPOTHERMIA AND PROCESSING OF THEIR RESULTS</p> <p>Andrzej J. Nowak, Jakub Tumidajski, Daniel Wagstyl, Dominika Bandola, Mateusz Bojdoł, Ziemowit Ostrowski, Marek Rojczyk, Wojciech Walas, Zenon Halaba</p>	-	<p>EXPERIMENTAL AND NUMERICAL CONVECTIVE HEAT TRANSFER PERFORMANCE ANALYSIS OF A CONFINED ROUND JET WITH TRIANGULAR TABS UNDER CROSSFLOW INFLUENCE</p> <p>Mehmet Saglam, Buğra Sarper, Soner Birinci, Orhan Aydın</p>
10:00	<p>NUMERICAL AND EXPERIMENTAL INVESTIGATION OF CAKE BAKING PROCESS</p> <p>Pascal Le Bideau, Patrick EL Helou, Adrien Fuentes, Patrick Glouannec</p>	<p>FREE-SURFACE JET HEAT TRANSFER REVISITED: FROM AN INDIFFERENT REGIME TO THE RE-EMERGENCE OF THE OFF-CENTER PEAK</p> <p>Herman Haustein, Ron Harnik</p>	<p>HYPERVISCOSITY STABILISATION OF THE RBF-FD SOLUTION TO NATURAL CONVECTION</p> <p>Miha Rot, Žiga Vaupotič, Gregor Kosec</p>	<p>CFD SIMULATION OF SOLID/LIQUID PHASE CHANGE IN COMMERCIAL PCMS USING THE SLPCMLIB LIBRARY</p> <p>Adam Buruzs, Fabrizia Giordano, Manuel Schieder, Christoph Reichl, Maité Goderis, Wim Beyne, Michel De Paepe, Tilman Barz</p>	<p>BLOOD FLOW IN DEFORMING VESSELS</p> <p>Ryszard Biatecki, Wojciech Adamczyk, Ziemowit Ostrowski, Bartłomiej Melka, Maria Gracka, Krzysztof Psiuk-Maksymowicz, Damian Borys, Aleksander Sinek, Mateusz Mesek, Jacob Sturdy, Adam Golda, Jan Juszczyk</p>	-	<p>IMPACT OF ONE AND TWO PARTIAL COOLING DUCTS ON THE TEMPERATURE RISE IN TRANSFORMER WINDINGS</p> <p>Goran Bulatovic, Peter Bokes</p>

10:15	<p>NUMERICAL INVESTIGATION OF METHANE-AIR JET FLAME WITH HYDROGEN ADDITION IN INDUSTRIAL KILN BURNERS</p> <p>Jiannan Liu, Joaquim Rigola, Eugenio Schillaci, Carlos David Perez Segarra</p>	<p>ENGINEERED ADVANCED MATERIALS FOR LATENT THERMAL ENERGY STORAGE</p> <p>Amit Mishra, Alessandro Ribezzo, Matteo Morciano, Luca Bergamasco, Matteo Fasano, Eliodoro Chiavazzo</p>	<p>FOURTH-ORDER PHASE-FIELD SIMULATION OF CRACKS USING STRONG FORM MESHLESS METHOD</p> <p>Izaz Ali, Gašper Vuga, Boštjan Mavrič, Umut Hanoglu, Božidar Šarler</p>	<p>MODELLING A LATENT THERMAL ENERGY STORAGE PROTOTYPE WITH A DIPHASIC HEAT TRANSFER FLUID</p> <p>Amandine Da Col, Fabrice Bentivoglio, Benoit Stutz</p>	<p>A NEEDLE-FORM 3-OMEGA SENSOR FOR THERMAL CHARACTERIZATION OF CRYOPRESERVED BIOLOGICAL TISSUES</p> <p>Spencer Alliston, Chris Dames</p>	-	<p>NUMERICAL ANALYSIS ON THE ENERGY EFFICIENCY OF DRYING OF MASONRY WALL AFTER FLOODING USING VARIABLE DRYING AIR TEMPERATURE PROFILE</p> <p>Michał Wasik, Piotr Łapka</p>
10:30	<p>ENSEMBLE AVERAGING PARALLEL-IN-TIME APPROACH FOR INDUSTRIAL LES</p> <p>Josep Plana-Riu, Francesc Xavier Trias Miquel, Àdel Alsalti-Baldellou, Guillem Colomer, A. Oliva</p>	<p>EXPERIMENTAL ANALYSIS OF AN INNOVATIVE GEO-EXCHANGE SYSTEM INSTALLED ON THE ISLAND OF ISCHIA, IN SOUTHERN ITALY</p> <p>Vincenzo Guida, Nicola Massarotti, Alessandro Mauro</p>	<p>PHASE-FIELD FORMULATED MESHLESS SIMULATION OF RAYLEIGH-TAYLOR INSTABILITY PROBLEM</p> <p>Khush Bakhat Rana, Boštjan Mavrič, Božidar Šarler</p>	<p>INFLUENCE OF PCMS ON THERMAL PERFORMANCE OF WET FIRE PROTECTIVE CLOTHING</p> <p>André Malaquias, João Bernardo Lares Moreira de Campos</p>	<p>ASSESSMENT OF LOCAL TEMPERATURE ELEVATION AT THE SURFACE OF TISSUE EXPOSED TO RADIATION OF MILLIMETER WAVES USING SIMPLIFIED ANALYTICAL APPROACH</p> <p>Dragan Poljak, Josipa Šarić</p>	-	<p>THERMAL PERFORMANCE OF A CHAOTIC HEAT EXCHANGER : AN EXPERIMENTAL STUDY</p> <p>Nouhaila El Hani, Tom Lacassagne, Souria Hamidouche, Loïc Le Bihan, André Bontemps, S. Amir Bahrani</p>

10:45	<p>ON THE FEASIBILITY OF OVERNIGHT INDUSTRIAL HIGH-FIDELITY SIMULATIONS OF CSP TECHNOLOGIES ON MODERN HPC SYSTEMS</p> <p>Àdel Alsalti-Baldellou, Guillem Colomer, Johannes Arend Hopman, Xavier Álvarez Farré, Andrey Gorobets, Francesc Xavier Trias Miquel, Carlos David Perez Segarra, A. Oliva</p>	<p>STRUCTURED ILLUMINATION WITH INFRARED IMAGING FOR MEASURING THERMAL CONDUCTIVITY</p> <p>Ashwath Bhat, Chris Dames</p>	-	<p>ANALYZING THE IMPACT OF USING PHASE CHANGE MATERIALS ON ENERGY CONSUMPTION IN BUILDINGS: A CASE STUDY</p> <p>Igor Vušanović, Boris Hrnčić</p>	<p>THE METHOD OF FUNDAMENTAL SOLUTIONS AND RADIAL BASIS FUNCTIONS FOR DIRECT AND INVERSE BIOHEAT TRANSFER PROBLEMS</p> <p>Jakub Grabski</p>	-	<p>SIMPLE MODEL OF LIQUID PISTON COMPRESSOR</p> <p>Nejc Cerkovnik, Luka Čurović, Jurij Prezelj</p>
11:00	<p>A PRELIMINARY MODEL OF WATER AND SALT TRANSPORT IN A LABORATORY SCALE PRESSURE-RETARDED OSMOSIS (PRO) MODULE</p> <p>Piotr Łapka, Juliusz Wachnicki, Piotr Furmański</p>	<p>LES INVESTIGATIONS OF TURBULENT HEAT TRANSFER STRUCTURES WITH EXPONENTIAL POWER ESCALATION</p> <p>Elie Roumet, Raksmy Nop, Nicolas Dorville, Marie-Christine Duluc</p>	-	<p>VENTILATION SYSTEM WITH HEAT RECOVERY AND PCM THERMAL ENERGY STORAGE FOR "FREE" COOLING IN BUILDINGS</p> <p>Uroš Stritih, Primož Lenassi, Urška Mlakar, Dr. Eneja Osterman</p>	<p>ON SOME COMPUTATIONAL ASPECTS FOR ELECTROMAGNETIC-THERMAL DOSIMETRY OF MM WAVES</p> <p>Mario Cvetković, Hrvoje Dodig, Dragan Poljak</p>	-	-

11:15	<p>A SPATIAL AND TEMPORAL DISCRETIZATION METHODOLOGY FOR THE LUMPED PARAMETER THERMAL MODELLING OF ELECTRIC MACHINES Jasper Nonneman, Ilya T'Jollyn, Michel De Paepe</p>	<p>PARTICLE DISPERSION PRODUCED BY A TURBULENT FREE CONVECTION FLOW IN A ROOM-SIZE CUBICAL CAVITY Jordi Pallares, Akim Lavrinenko, Cristian Marchioli, Salvatore Cito, Alex Fabregat</p>	-	-	-	-	-
11:30-12:00	<p>Coffee break Foyer</p>						
12:00 – 12:30	<p>Take-away lecture and conference closure REFLECTIONS ON SOME ACHIEVEMENTS IN THE FIELD OF THERMOFLUID SCIENCES RELATED TO SLOVENIANS AND SLOVENIA Božidar Šarler Chair: Laura Vanoli Arnold Hall</p>						

POSTERS

1. INVESTIGATION OF THE OPERATING CHARACTERISTIC OF A DEMAND-CONTROLLED 368 M DEEP CO₂ THERMOSYPHON GEOTHERMAL BOREHOLE HEAT EXCHANGER FOR BUILDING HEATING, Janina Hagedorn, Robin Kahlfeld, Matthe Nageler, Stephan Kabelac
2. EFFECT OF ACOUSTICS ON DROPLET GROUPING BEHAVIOUR IN A SINGLE STREAM OF DROPLETS, Manish Kumar, Visakh Vaikuntanathan, Bernhard Weigand
3. DESIGN AND NUMERICAL SIMULATION OF A 45 KWEL MULTI-SOURCE HIGH-FLUX SOLAR SIMULATOR AS A HEATING SYSTEM OF DIELECTRIC MATERIALS PLACED IN A HIGH-FREQUENCY CHARACTERIZATION CAVITY, Jesse Allens Touoyem, Talla Baptiste, Henriot Thierry, Duvau Olivier, Tantot Nicolas, Delhote Michaël, Charles Jaona, Harifidy Randrianalisoa
4. NUMERICAL CONTACT LINE BEHAVIOR PREDICTION FOR DROP-WALL IMPACT USING BASILISK, Maxim Piskunov, Ivan Vozhakov, Sergey Misyura
5. PHYSICALLY BASED HEAT EXCHANGER SIZING METHOD FOR THE THERMAL MANAGEMENT SYSTEM OF ALL-ELECTRIC REGIONAL AIRCRAFT, Marius Nozinski, Carlo De Servi, Behnam Parizad Benam, Stephan Kabelac, Chiara Falsetti
6. MITIGATING THE ONSET OF FLOW SEPARATION OVER WIND TURBINES BLADES AT LOW REYNOLDS NUMBERS: NUMERICAL CONCEPTUALIZATION AND VALIDATION, Luca Pagliarini, Roberto Corsini, Enrico Stalio, Fabio Bozzoli
7. NUMERICAL SIMULATION OF DROP IMPINGEMENT ONTO SUPERHEATED TEXTURED WALLS, Henrik Sontheimer, Anh Tu Ho, Leon Elsässer, Peter Stephan, Tatiana Gambaryan Roisman
8. NUMERICAL MODELING OF A CONFINED FALLING LIQUID FILM SHEARED BY A GAS FLOW IN A PLATE HEAT EXCHANGER OF AN NH₃/H₂O ABSORPTION CHILLER, Jana Sleiman, Benoit Stutz, Hai Trieu Phan
9. THE INFLUENCE OF LIQUID HEIGHT TO BUBBLE SIZE RATIO ON THE BOILING CRISIS IN POOL BOILING, Rodrigo Cavalcanti Alvarez, Matteo Bucci
10. CONFINED BOILING ON AN IMMERSSED HEATED CORNER: INFLUENCE OF ONE WALL ON THE OTHER, Nicolas Baudin, Antonio della Volpe, Stéphane Roux, Robert Yu, Jean-Michel Fiard, Jerome BELLETTRE
11. PERIODIC LASER HEATING TECHNIQUE FOR THIN FILM CHARACTERIZATION, Erika Hahn, Sebastian Feulner, Vincent Linseis
12. WETTABILITY PATTERNING OF TITANIUM SURFACES THROUGH PULSED LASER MELTING FOR ENHANCED CONDENSATION HEAT TRANSFER, Avnish Chokshi, Rahul N, Rajdeep Singh Devra, Soumyadip Sett, Madhu Vadali
13. A 3D SYMMETRY-PRESERVING SIMULATION OF A CONCENTRATED PHOTOVOLTAIC THERMAL (CPVT) SOLAR COLLECTOR, Daniel Santos Serrano, Joaquim Rigola, Jesus Castro, Francesc Xavier Trias Miquel
14. CONDENSATION OF WATER ON PDMS-COATED COPPER SURFACES FOR FRESH WATER HARVESTING, Till Pfeiffer, Tatiana Gambaryan Roisman, Peter Stephan, Hans-Jurgen Butt, Michael Kappl
15. FLOW BOILING HEAT TRANSFER IN A PLATE HEAT EXCHANGER WITH MIXED CHEVRON ANGLE PLATES, Chien-Yuh Yang, Mu Ting Hsieh

16. COMPARISON OF TEMPERATURE-SENSITIVE COATINGS IMMOBILIZED IN POLYMERIC MATRICES FOR FAST/HIGH-RESOLUTION HEAT TRANSFER TRANSIENT CHARACTERIZATION, Maria Rosaria Vetrano, Matevž Vodopivec, Donato Fontanarosa, Erin Koos, Yanshen Zhu
17. EFFECT OF HYDROPHOBIC COATING ON OPTIMIZATION OF DROPWISE CONDENSATION OF PURE VAPOR OVER HYBRID SURFACES, Nicola Suzzi, Giulio Croce
18. UNDERSTANDING THE IMPACT OF OBLIQUE FIN ANGLE ON THE THERMO-HYDRODYNAMIC PERFORMANCE OF OBLIQUE MICROCHANNELS UNDER LAMINAR FORCED CONVECTION REGIME, Prasad kangude, Parth S Kumavat, Evgeny Shatskiy, Anthony Robinson
19. MACHINE LEARNING BASED MODELING OF NUCLEATE POOL BOILING HEAT TRANSFER COEFFICIENT ON PLAIN AND ROUGHENED SURFACES, Vijay K, Sateesh Gedupudi
20. INVESTIGATING THE EFFECT OF DIFFERING TRIANGULAR TOPOLOGIES AND ROUGHNESSES ON THE BUBBLE DYNAMICS OF R32 DURING NUCLEATE BOILING, Marilize Everts, Wilhelm J. van den Bergh, Panagiotis Theodorakis
21. MULTI-OBJECTIVE OPTIMIZATION IN HEAT EXCHANGER DESIGN AND OPERATION, Reijo Karvinen
22. AN EXPERIMENTAL INVESTIGATION OF FORCED CONVECTIVE LIQUID IMMERSION COOLING OF A 12-CELL LI-ION BATTERY MODULE, David W. Salter, Guillaume Bachelier, Parth S Kumavat, Seamus O'Shaughnessy
23. TOPOLOGY OPTIMIZATION OF HEAT EXCHANGERS, Ahmad Fawaz, Yuchao Hua, Steven Le Corre, Yilin Fan , Lingai LUO
24. GROOVED HYBRID COPPER SURFACES FOR CONDENSATION HEAT TRANSFER, Amit Goswami, Suresh C. Pillai, Gerard McGranaghan
25. NUMERICAL MODELLING OF A HYBRID VAPOR COMPRESSION REFRIGERATION ASSISTED CLOSED LOOP LIQUID COOLING SYSTEM FOR HIGH-PERFORMANCE COMPUTING SYSTEMS, Fazeel Mohammed, Naduvilakath Mohammed, Gerard Byrne, Anthony Robinson
26. NUMERICAL INVESTIGATION ON LIQUID COOLING OF BATTERIES IN PHASE CHANGE MATERIALS, Oronzio Manca, Aanandsundar Arumugam, Bernardo Buonomo, Pasquale Roman
27. HEAT TRANSFER MECHANISMS DURING BOILING ON LOW THERMAL CAPACITANCE HEATERS, Mattia Bucci, Matevž Zupančič, Iztok Golobič
28. NUCLEATION, GROWTH AND BUBBLE DETACHMENT IN LIQUID-VAPOR PHASE CHANGE ON STRUCTURED SURFACES, Klara Arhar, Matic Može, Matevž Zupančič, Iztok Golobič
29. STUDY OF NUCLEATE BOILING GROWTH REGIME ON THIN SURFACES, Yohann Jaunet, Mattia Bucci, Matevž Zupančič, Julien Sebilleau, Catherine Colin, Iztok Golobič
30. ONLINE AND REAL-TIME MEASUREMENT OF BOILING ACOUSTIC EMISSIONS IN FLOW BOILING, Matthew Hughes, Matteo Bucci
31. THE ROLE OF SUPERHYDROPHOBIC SURFACE STABILITY IN ANTI-ICING APPLICATIONS, Samo Jereb, Matic Može, Matevž Zupančič, Iztok Golobič
32. STUDY ON THE DIFFERENCE IN FLOW BOILING PERFORMANCE OF ALLOY SUBSTRATE SURFACES IN A RECTANGULAR CHANNEL, Sihong He, Jiyun Zhao
33. DEEP RESIDUAL NETWORK FOR INTERPOLATION AND INVERSE PROBLEMS, Amir Noorizadegan, C-S David Chen, Der Liang Young,

34. EXPERIMENTAL AND NUMERICAL PRESSURE DROP INVESTIGATION OF A PROTRUDING TUBE MICROCHANNEL HEAT EXCHANGER, Carles Oliet, Mohamed Settati, A. Oliva
35. PREDICTION OF HEAT TRANSFER COEFFICIENT AND PRESSURE DROP OF FLOW BOILING AND CONDENSATION USING MACHINE LEARNING, Edgar Santiago Galicia, Andres Hernandez-Matamoros, Akio Miyara
36. NUMERICAL MODELLING OF CONTINUOUS CASTING OF ROUND BILLETS WITH TURBULENCE IN THE MELT, Katarina Mramor, Zlatko Rek, Robert Vertnik, B Šarler
37. NUMERICAL SIMULATIONS OF TEMPERATURE LOADS OF MULTILAYER LAUE LENSES, Zlatko Rek, Henry N. Chapman, Sasa Bajt, B Šarler
38. ACCELERATION OF FLOW-FOCUSED LIQUID JETS IN THE PRESENCE OF A STRONG ELECTRIC FIELD, Bor Zupan, Sasa Bajt, Henry N. Chapman, Alfonso M. Gañán-Calvo, B Šarler
39. EXPERIMENTAL STUDY OF THE MULTIPLE IMPELLER CHARACTERISTICS IN THE FERMENTER TANK, Andrej Bombač
40. THE KINETIC ENERGY TRANSFER ANALYSIS BETWEEN THE GAS AND THE LIQUID IN GAS DYNAMIC VIRTUAL NOZZLE MICRO FLOW-FOCUSING, Krištof Kovačič, B Šarler
41. MULTISCALE SYSTEM-LEVEL MODELLING OF A HIGH-VOLTAGE BATTERY PACK THERMAL MANAGEMENT SYSTEM FOR AEROSPACE APPLICATIONS, Jernej Pirnar, Ambrož Vrtovec, Tina Novak, Tibor van Steenis
42. EXPERIMENTAL ANALYSIS OF FLOW-FOCUSED MICRO-JETS, Jernej Kušar, Krištof Kovačič, Bor Zupan, Gal Savšek, Božidar Šarler
43. VISUALIZATION OF INCLUSIONS IN A WATER MODEL FOR CONTINUOUS CASTING OF STEEL, Matjaž Perpar, Katarina Mramor, Blaž Hodej, Matic Cotič, Robert Vertnik, Vid Vengust, Božidar Šarler
44. NUMERICAL MODELING AND SIMULATION OF NEAR-CONTACT-LINE EVAPORATION KINETICS, Irina Graur Martin, Alexey Rednikov, Fedor Ronshin, Lounès Tadrist