Conference programme and guidelines for authors

9TH EUROPEAN THERMAL SCIENCES CONFERENCE

10 – 13 June 2024, Rikli Balance Hotel, Bled, Slovenia

Instructions for oral presenters

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

The preferred presentation's aspect ratio is **16:9**.

Please note that the use of individual 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** your presentation via **USB (Type A)** port on an on-site PC, **test the presentation**, familiarise yourself with the setup at the podium, 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)

PARALLEL SESSIONS

The **regular** and **keynote** lectures are organised into **13** topics. They include **7** special sessions (**SpS**).

The topics are:

- Heat transfer
- Application
- Fluid flow
- Experiments
- Thermodynamics & Miscellaneous
- Application & Computing
- Boiling and condensation heat transfer (SpS1)
- Meshfree methods and applications in thermal sciences (SpS2)
- Morphology optimised design of heat exchangers (SpS3)
- Multiscale computational methods in bioengineering (SpS4)
- Solidification science and technology (SpS5)
- Thermal control devices and thermal circuits (SpS6)
- Thermal energy storage (SpS7)

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 are listed at the end of this document and available on your poster board.
Scotch tape will be available to facilitate attaching posters to the boards.

POSTER SESSION

The poster session is held in the **Sonce conference hall** on **Wednesday, 12 June, from 11:00 until 12:30.**
Mounting time: Monday, 10 June, 08:00 - 09:00
Dismounting time: Thursday, 13 June, 12:30-13:00
Authors must be present next to their poster boards during the poster session.

Conference venue

The conference is held at the **Rikli Balance Hotel, Bled, Slovenia.**

Registration, welcome party, and **coffee breaks** are held in the **foyer**.

Lunch breaks are held in the **restaurant**.

The **plenary lectures** are held in the **Arnold** conference hall.

During the **parallel sessions**, **Arnold** conference hall is split into two rooms, **Arnold 1** and **Arnold 2**.

The **parallel sessions** are held in **Arnold 1**, **Arnold 2**, **Sonce**, **Zrak**, **Voda**, **Straža 1**, and **Straža 5**.

The **poster session** is held in **Sonce**.

The **foyer**, **restaurant**, conference halls **Arnold** and **Sonce**, and meeting rooms **Zrak** and **Voda** are located on the hotel's **ground floor**.

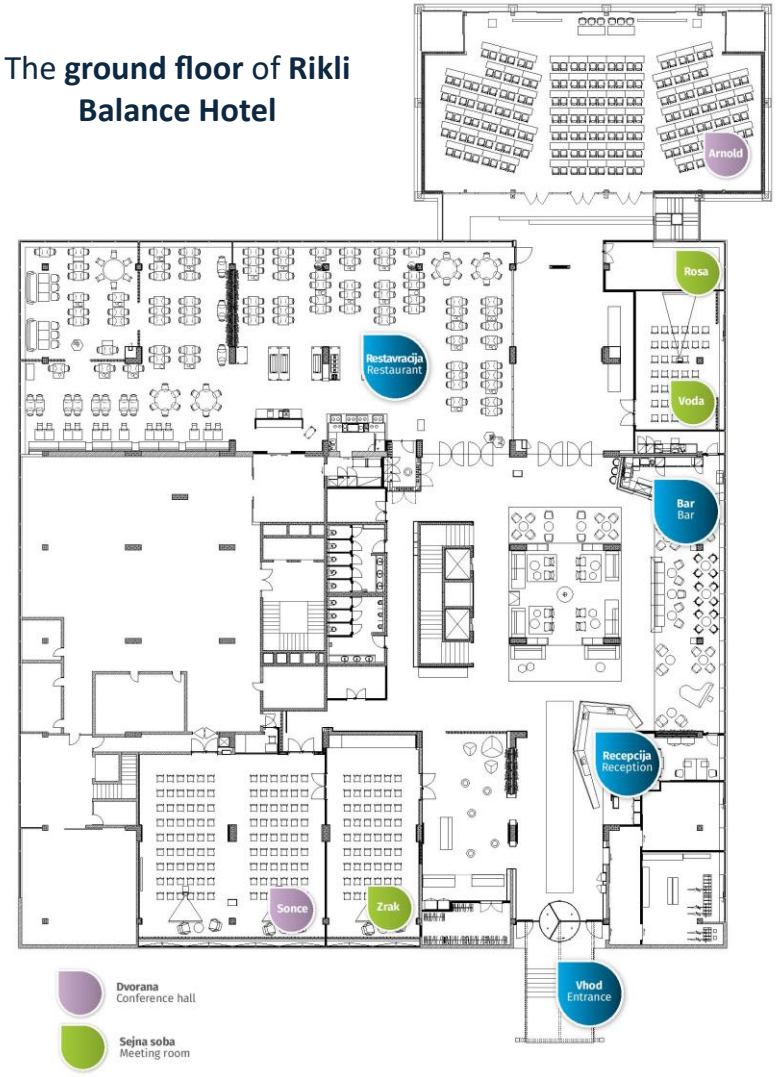
The **foyer** is located in front of the **Arnold** conference hall.

Straža 1 is located on the hotel's **first floor** (accessible by **elevator**).

Straža 5 is located on the hotel's **fifth floor** (accessible by **elevator**).

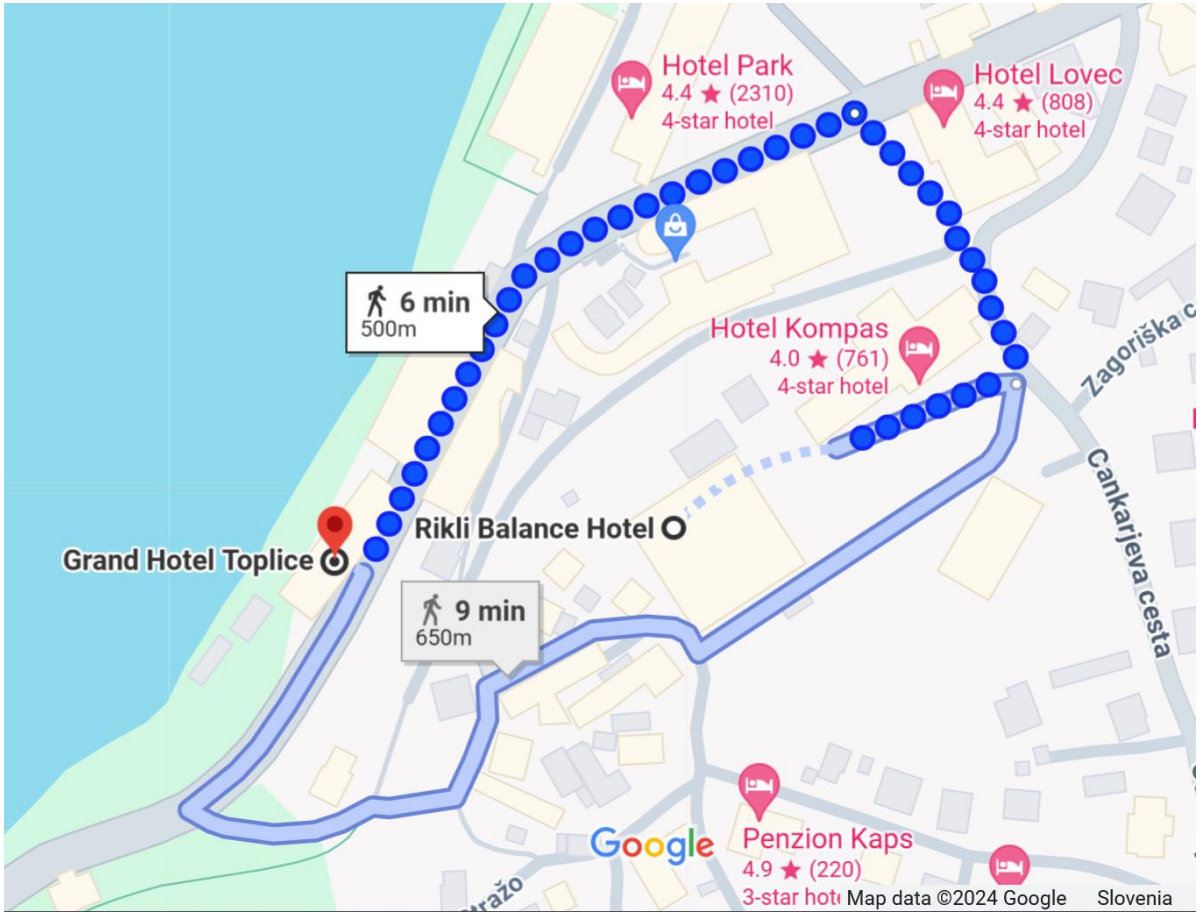
The **figure** on the **next page** shows the **ground floor** of the hotel.

The **ground floor** of **Rikli Balance Hotel**



Conference dinner

The conference dinner is held in the **Grand Hotel Toplice** on **Wednesday**, **12 June**, at **20:00** (a 6-minute walk from **Rikli Balance Hotel**).



Conference programme

Sunday, 9 June 2024

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

Monday, 10 June 2024

08:00-16:30	**Registration** Foyer
10:00-11:00	**Opening ceremony and Eurotherm young scientists awarding** Chairs: Janusz Szmyd, Laura Vanoli, Božidar Šarler Arnold Hall
11:00-11:45	**Plenary lecture** MANAGING HIGH HEAT LOADS IN EXTREME X-RAY OPTICS Saša Bajt Chair: Božidar Šarler Arnold conference hall
11:45-12:30	**Plenary lecture** THE ARCHITECTING OF NANOMATERIALS FOR WATER CONDENSATION APPLICATIONS Dimos Poulikakos Chair: Laura Vanoli Arnold conference hall

12:30-12:45	**Conference photo**						
12:45-14:00	**Lunch break** Restaurant						
	Arnold 1	**Arnold 2**	**Sonce**	**Zrak**	**Voda**	**Straža 1**	**Straža 5**
14:00 – 16:00	**SpS6-1** Chair: Andrej Kitanovski	**Heat transfer 1** Chair: Andrzej J. Nowak	**SpS1-1: Nucleate and flow boiling** Chair: Paolo Di Marco	**SpS7-1: Latent heat** Chair: Monica Delgado	**Application 1** Chair: Dragan Poljak	**SpS2-1: Advances in meshfree methods** Chair: Boštjan Mavrič	**Fluid flow 1** Chair: Michel De Paepe
14:00	**Keynote lecture** A BRIEF REVIEW OF APPLICATIONS OF THERMAL DIODE Baowen Li, Guimei Zhu	OPTIMISING LIQUID IMPINGEMENT JET ARRAYS FOR CONCENTRATED HEAT SOURCES Jonathan Elliott, Gerard Byrne, Anthony Robinson	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	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	CARBON CAPTURE WITH RENEWABLE HEATING BASED ON THE TECHNICAL LIME CYCLE Eva Klockow, Marc Linder	**Keynote lecture** MESHFREE RBF-FD METHODS FOR NUMERICAL SIMULATION OF PDE PROBLEMS Elisabeth Larsson, Boštjan Mavrič, Andreas Michael, Fatemeh Pooladi, Igor Tominec	IDENTIFYING STEADY AND PULSATILE TWO-PHASE FLOW REGIMES WITH PRESSURE DROP SIGNALS AND ACOUSTIC EMISSIONS Matthew Hughes, Raj Agarwal, Srinivas Garimella
14:15		TWO-PHASE COOLING SYSTEM FOR ELECTRIC VEHICLES' BATTERY Luca Cattani, Matteo Malavasi, Alessandro Benelli, Fabio Bozzoli	INFLUENCE OF SUBCOOLING CONDITIONS ON POOL BOILING IN MICROGRAVITY CONDITIONS: SINGLE ARTIFICIAL SITE CASE Lounès Tadrist, Fedor Ronshin, Oleg Kabov, Alexey Rednikov	LOW-ORDER DESIGN MODELS FOR LATENT THERMAL ENERGY STORAGE Wim Beyne, Joris Degroote, Michel De Paepe	EXPERIMENT AND MODEL RESULTS OF A FIRST BIDIRECTIONAL ACTIVE TEMPERATURE CONTROL MODULE WITH METAL HYDRIDES FOR A FUEL CELL Hanna Lösch, Eva Fensterle, Inga Bürger		MIXED CONVECTION FLOW OVER A HORIZONTAL PLATE AND THE HORIZONTAL WAKE FAR DOWNSTREAM Lukáš Bábor, Wilhelm Schneider, Endre Bozsó

14:30	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	A PHASE-SPLITTING APPROACH TO DESCRIBE MACROSCOPICALLY NON-EQUILIBRIUM TRANSPORT IN POROUS MEDIA Michel Quintard, Yohan Davit, Brian D. Wood	EXPERIMENTAL INVESTIGATION OF ELECTRICALLY ENHANCED BOILING OF FC 72 USING HIGH-RESOLUTION PHASE-DETECTION DIAGNOSTICS Marco Graffiedi, Alekos Ioannis Garivalis, Paolo Di Marco, Matteo Bucci	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	STATE OF THE ART OF HEAT PUMPS ABOVE 150°C Matevž Cimermančič, Katja Klinar, Andrej Kitanovski	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	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
14:45	THERMAL CONTROL OF THIN FILMS WITH NANOSCALE STRUCTURE Moeka Sato, Yoshiya Takahara, Mitsuhiro Matsumoto, Nobuhiko Kajinami, Misaki Hanaoka, Manabu Iwakawa	NUMERICAL SIMULATION OF DROPLET IMPACT ONTO HEATED SURFACES BELOW THE BOILING POINT Rishav Saha, Bernhard Weigand	EXPERIMENTAL INVESTIGATION OF SURFACE TENSION AND ARTIFICIAL NUCLEATION SITE GEOMETRY ON ISOLATED BUBBLE DYNAMICS Maria Rosaria Vetrano, Matevz Vodopivec, Mulugeta Gebrekiros Berhe, Mattia Bucci, Matevž Zupančič, Donato Fontanarosa, Matic Može, Sylvie Castagne, Iztok Golobič	NUMERICAL STUDY ON HYBRID BATTERY THERMAL MANAGEMENT SYSTEM INTEGRATING WATER, PHASE CHANGE MATERIAL AND FINS UNDER NEW EUROPEAN DRIVING CYCLE Satyam Singh Thakur, Lalit Kumar	STATE OF THE ART OF MICRO VAPOUR COMPRESSION SYSTEMS Mihael Blatnik, Katja Klinar, Andrej Kitanovski	COMPARING STABILISATION METHODS FOR RBF-FD METHOD APPLIED TO PURE ADVECTION Miha Rot, Gregor Kosec	~~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~~ **REASSIGNED TO THURSDAY, AT 11:15 IN ARNOLD 1**

15:00	RADIATIVE THERMAL SWITCH Guillaume Boudan, Étienne Eustache, Agnès Delmas, Christophe Lucchesi, Riccardo Messina, Philippe Ben-Abdallah	A NUMERICAL INVESTIGATION ON A LIQUID-COOLED BATTERY THERMAL MANAGEMENT SYSTEM: EFFECT OF INLET TEMPERATURE AND FLOW RATE Soner Birinci, Melisa Albayrak, M. Yusuf Yazıcı, Buğra Sarper, Orhan Aydın	HEAT TRANSFER MECHANISMS DURING BOILING ON LOW THERMAL CAPACITANCE HEATERS Mattia Bucci, Matevž Zupančič, Iztok Golobič	CONJUGATE HEAT TRANSFER ANALYSIS OF THE TRANSIENT THERMAL DISCHARGE OF A METALLIC LATENT HEAT STORAGE SYSTEM Frank Nees, Yogesh Sajikumar Pai	ESTIMATION OF TEMPERATURE HOTSPOTS ON LI-ION CELL UNDER DIFFERENT OPERATING AND COOLING CONDITIONS: A MACHINE-LEARNING APPROACH Rajesh Akula, Lalit Kumar	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	SIMULATION OF NON-NEWTONIAN GAS-FOCUSED MICRO-JETS IN CHOCKED GAS FLOW REGIME Rizwan Zahoor, Saša Bajt, Božidar Šarler
15:15	THERMOMAGNETIC DEVICES FOR HEAT FLOW SWITCHING, RECTIFICATION, AND AMPLIFICATION Lorenzo Castelli, Qing Zhu, Ajay Garg, Kaitlyn Zdrojewski, Trevor Shimokusu, Pooja Sashital, Geoff Wehmeyer	THE INFLUENCE OF COLD PLATE HEIGHT ON THERMAL MANAGEMENT OF A LIQUID-COOLED BATTERY PACK Soner Birinci, Melisa Albayrak, Mehmet Saglam, Buğra Sarper, Orhan Aydin	VAPOR BUBBLE GROWTH AND DETACHMENT IN A SHEAR FLOW IN MICROGRAVITY CONDITIONS Catherine Colin, Julien Sebilleau, Mbaye Modou, Md. Qaisar Raza	ENHANCED LATENT THERMAL ENERGY BATTERY WITH ADDITIVE MANUFACTURING Matteo Morciano, Matteo Alberghini, Flaviana Calignano, Diego Giovanni Manfredi, Matteo Fasano, Pietro Asinari, Eliodoro Chiavazzo	SEASONAL ENERGY PERFORMANCE ASSESSMENT OF A HYBRID HVAC SYSTEM DRIVEN BY SOLAR AND BIOMASS ENERGY FOR SPACE HEATING AND COOLING IN RESIDENTIAL BUILDINGS Matteo Dongellini, Christoph Moser, Szabolcs Varga, Joao Soares, Claudia Naldi, Gian Luca Morini	SUPERCONVERGENT BEHAVIOUR OF THE RBF-FD METHOD Andrej Kolar-Požun, Mitja Jančič, Miha Rot, Gregor Kosec	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

15:30	FABRICATION OF MICROFLUIDIC THERMAL SWITCHES FOR MAGNETOCALORIC COOLING APPLICATIONS Blaž Velkavrh, Hana Uršič, Victor Regis, Matej Šadl, Bianka Colarič, Andrej Kitanovski, Urban Tomc	AN ADVANCED NUMERICAL RADIAL SUB-RESOLUTION TECHNIQUE TO CORRECT HEAT FLUXES IN THE VICINITY OF BUBBLES AT SATURATION Mathis Grosso, Guillaume Bois, Adrien Toutant	CONVECTIVE BOILING HEAT TRANSFER ENHANCEMENT VIA FEMTO-LASER TEXTURING Maria Rosaria Vetrano, Frederik Mertens, Balasubramanian Nagarajan, Sylvie Castagne, Johan Steelant	THERMAL MANAGEMENT OF HIGH-POWERED SHORT-DURATION ELECTRONICS AIDED BY A PHASE CHANGE MATERIAL THERMAL ENERGY SYSTEM Dominic Groulx, Devin Martherleur	ASSESSMENT OF INTERNAL AND EXTERNAL DISTURBANCES ON THE FUZZY-BASED THERMAL CONTROL OF A SUB-SCALED BUILDING TESTBED Arturo Pacheco-Vega, Anayely Saguilan	THERMO-ELASTO-PLASTIC SIMULATION OF HOT SHAPE ROLLING OF STEEL BY A MESHLESS METHOD Umut Hanoglu, Božidar Šarler	A NUMERICAL AND EXPERIMENTAL STUDY OF BREAKDOWN OF FALLING FILM ON HORIZONTAL CIRCULAR TUBES Sateesh Gedupudi, Km Jyoti Singh
15:45	THERMAL CONDUCTANCE TUNNABILIY BY MEANS OF BLOCK COPOLYMER DRIVEN NANOSTRUCTURATION OF SI-ULTRATHIN MEMBRANES Libertad Abad, Àlex Rodríguez-Iglesias, Hugo Gómez-Torres, Jordi Tur-Prats, Marta Fernández-Regúlez, Íñigo Martín-Fernández, Francesc Pérez- Murano, Joaquín Santander, Luis Fonseca, Xavier Àlvarez-Calafell, Aitor Lopeandia, Marc Salleras	NUMERICAL SIMULATIONS OF BUBBLY TURBULENT CONVECTION IN CUBICAL GEOMETRIES Joauma Marichal, Pierre Ruyer, Yann Bartosiewicz	BUBBLE DEPARTURE AND SLIDING IN HIGH-PRESSURE WATER FLOW BOILING Matthew Hughes, Artyom Kossolapov, Bren Phillips, Matteo Bucci	TRACKING OF THE MELTING FRONT IN TUBE-IN-TUBE LATENT THERMAL ENERGY STORAGE HEAT EXCHANGERS Julie Van Zele, Maité Goderis, Wim Beyne, Kenny Couvreur, Michel De Paepe	-	DEEP RESIDUAL NETWORK FOR INTERPOLATION AND INVERSE PROBLEMS Amir Noorizadegan, Ching-Shyang Chen, Der Liang Young	-
16:00-16:30	**Coffee break** Foyer						
	Arnold 1	**Arnold 2**	**Sonce**	**Zrak**	**Voda**	**Straža 1**	**Straža 5**

16:30-18:30	**SpS6-2** Chair: Miguel Muñoz Rojo	**Heat transfer 2** Chair: Reijo Karvinen	**SpS1-2: Phase-change on functionalised surfaces** Chair: Vadim Nikolayev	**Experiments** Chair: Michel Quintard	**Application 2** Chair: Yann Bartosiewicz	**SpS5-1: Microstructure modeling and additive manufacturing** Chair: Božidar Šarler	**Thermodynamics & Miscellaneous** Chair: Igor Vušanović
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 Zadravec, Jure Ravnik	ENHANCED POOL BOILING HEAT TRANSFER WITH POROUS TI-6AL-4V-COATINGS PRODUCED BY COLD SPRAY METAL ADDITIVE MANUFACTURING Alekos Ioannis Garivalis, Evgeny Shatskiy, Yan Chen, Anthony Robinson, Paolo Di Marco, Rocco Lupoi	EXPERIMENTAL STUDY OF EROSION IN HEAT EXCHANGERS IMMERSED IN A FLUIDIZED BED Pedro Domínguez-Coy, Juan Ignacio Córcoles-Tendero, José A. Almendros-Ibáñez	INFLUENCE OF SUPPLY TEMPERATURE AND BOOSTER TECHNOLOGY ON THE ENERGETIC PERFORMANCE OF A DISTRICT HEATING NETWORK Alixe 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	**Keynote lecture** THERMODYNAMIC EFFECTS IN CAVITATING FLOW Martin Petkovšek
16:45		ESTIMATION OF THERMOPHYSICAL PROPERTIES OF A POUCH-TYPE LI-ION BATTERY USING AN INVERSE METHODOLOGY Jithu J, Kasavajhula Naga Vasista, Suraj Kumar, Balaji Srinivasan, C. Balaji	CRYOGENIC QUENCHING PROCESS ENHANCEMENT THROUGH COATING AND MICROSTRUCTURE OPTIMIZATION Marco Graffiedi, Francis J. Dent, Sepideh Khodaparast, Matteo Bucci	X-RAY COMPUTED TOMOGRAPHY TRACKING OF CALCIUM CHLORIDE HEXAHYDRATE CRYSTALLISATION PROCESS Dario Guarda, Jorge Martinez Garcia, Benjamin Fenk, Damian Gwerder, Anastasia Stamatiou, Jörg Worlitschek, Simone Mancin, Philipp Schütz	PARAMETRIC STUDY FOR DETERMINATION OF NIGHTTIME SOLIDIFICATION CHARACTERISTICS OF BUILDING ACTIVE-PASSIVE SYSTEM WITH NIGHTTIME VENTILATION FOR FREE COOLING Eva Zavrl, Urban Tomc, Mohamed El Mankibi, Mateja Dovjak, Uroš Stritih	MULTI-PHASE-FIELD LATTICE BOLTZMANN SIMULATIONS OF SEMI-SOLID SIMPLE SHEAR DEFORMATION IN THIN FILM Namito Yamanaka, Shinji Sakane, Tomohiro Takaki	

17:00	THERMAL PHOTON DRIVEN TRANSISTOR PHILIPPE Ben Abdallah	APPROXIMATE ANALYTICAL SOLUTION FOR SOLIDIFICATION OF PCM IN CYLINDRICAL GEOMETRY WITH TEMPERATURE DEPENDENT THERMAL CONDUCTIVITY-PERTURBATION METHOD Milad Tajik Jamalabad, Cristobal Cortes	SPRAY COOLING OF MICROPILLARED STEEL PLATES: TWO-STAGE QUENCHING PHENOMENON Yutaku Kita, Taihei Matsunaga, Takaaki Ariyoshi, Hiroyuki Fukuda, Yasuyuki Takata, Masamichi Kohno	EXPERIMENTAL INVESTIGATIONS OF HYDROGEN IODIDE (HI) DECOMPOSITION PROCESS FOR DIFFERENT CATALYSTS AND VARIOUS TEMPERATURE CONDITIONS Patrycja Kowalik, Paweł Bocian, Piotr Jóźwiak, Jarosław Hercog, Krzysztof Badyda	COMPUTATIONAL INVESTIGATION OF THE EFFECT OF GEOMETRY AND FUEL COMPOSITION ON THE PERFORMANCE OF A SOLIDE OXIDE FUEL CELL Pedro Coelho, João Paulo Cardoso Peixeiro de Freitas, Ana Filipa Ferreira	PHASE FIELD SIMULATION OF SOLIDIFICATION IN HIGH ENTROPY ALLOYS Alexandre Viardin, Markus Apel, Thomas Bähr, Anna Schönell	MAKING TEMPERATURE FIELDS IN FLUID FLOWS VISIBLE FROM DISCRETE SENSOR DATA Michel Speetjens, Ruud Lensvelt, Henk Nijmeijer
17:15	CONDUCTIVE THERMAL TRANSITOR WITH INSULATOR TO METAL PHASE TRANSITION MATERIALS Karl Joulain, Younès Ezzahri	SUSTAINABLE HEATING AND COOLING FOR RESIDENTIAL BUILDINGS: COAXIAL GROUND HEAT EXCHANGERS Fawad Ahmed, Nicola Massarotti, B Šarler	FLOW BOILING IN MICROCHANNELS COUPLED WITH MICRO-NANO-MODIFIED SURFACES Ana Moita, Mariana Perez, Pedro Pontes	DESIGN OF AN ULTRAHIGH TEMPERATURE LIQUID METAL CENTRIFUGAL PUMP FOR THERMAL ENERGY STORAGE Kyle Buznitsky, Asegun S Henry, Mehdi Pishahang	FREE PISTON LINEAR GENERATOR EFFICIENCY EVALUATION USING 0D MODELING APPROACH Raffaele Saviano, Carlo Beatrice, Armando Maiello	TOWARDS A MACROSCOPIC MODEL OF DIFFUSIVE GRAIN INTERACTIONS DURING EQUIAXED DENDRITIC SOLIDIFICATION OF METAL ALLOYS Miha Založnik, Abdelhalim Chirouf, Alphonse Finel, Yann Le Bouar	MODELLING OF THE REFRIGERANT DISTRIBUTION IN A CRITICALLY CHARGED PROPANE HEAT PUMP CYCLE FOR PERFORMANCE EVALUATION Jana Rogiers, Tanya Deblaere, Xander van Heule, Bernd Ameel, Steven Lecompte, Michel De Paepe

17:30	MANIPULATING THE THERMAL CONDUCTANCE BY APPLYING REVERSIBLE GAS-SOLID REACTIONS Jonina Felbinger, Marc Linder	EXPERIMENTAL INVESTIGATION OF THE SUPERCRITICAL HEAT TRANSFER OF THE LOW GWP REFRIGERANT R1234ZE(E): CALIBRATION AND VALIDATION OF TEST RIG Jera Van Nieuwenhuyse, Steven Lecompte, Michel De Paepe	EFFECT OF COMPOSITION ON BUBBLE BEHAVIOUR DURING BOILING OF MIXTURES ON SUPERHYDROPHOBIC SURFACES WITH ARTIFICIAL CAVITIES Ningxi Zhang, Daniel Orejon, Khellil Sefiane	EXPERIMENTAL INVESTIGATIONS OF THE POTENTIAL OF ORGANIC SALT SOLUTIONS FOR APPLICATION IN PRESSURE-RETARDED OSMOSIS Piotr Łapka, Fabian Dietrich, Łukasz Cieslikiewicz, Piotr Furmański	3D CFD SIMULATION OF ROOM AIR TEMPERATURE AND VELOCITY WITH CEILING FAN AND EXHAUST FAN AND THE RESULTING THERMAL COMFORT Trino Thomas, Sateesh Gedupudi	ON THE OCCURRENCE OF RAPID SOLIDIFICATION IN ADDITIVE MANUFACTURING OF METALLIC ALLOYS Damien Tourret	IMPACT OF VARIATION OF THE COOLING SYSTEM OPERATING STRATEGY ON ENERGY EFFICIENCY AND WASTE HEAT QUALITY: A PRELIMINARY INVESTIGATION ON A HYBRID-COOLED DATA CENTRE Lorenzo Testa, Philip Stuart, Cathal O'Donnell, Tim Persoons
17:45	OSCILLATING THERMAL SWITCH USING ELECTROSTATIC FORCES Nada Petelin, Borut Pečar, Danilo Vrtačnik, Urban Tomc, Andrej Kitanovski	MODELLING OF THE CONDUCTION-RADIATION MULTILAYER FLASH METHOD BY A FULLY STOCHASTIC APPROACH Loïc Seyer, Franck Enguehard, Denis Rochais	SUPERBIPHILIC HIERARCHICAL ALUMINUM SURFACES FOR EXCEPTIONAL POOL BOILING PERFORMANCE Armin Hadžić, Matic Može, Matevž Zupančič, Iztok Golobič	ELEVATED TEMPERATURES AND PRESTRESSES ON EVOLVING YIELD SURFACES FOR MODELING EXPERIMENTAL DATA Hong-Ki Hong, Kai-Min Hou	MAGNETOCALORIC REFRIGERATOR WITH MAGNETIC PUMP AND LIQUID METALS Keerthivasan Rajamani, Mina Shahi, Bob Stolwijk	NUCLEATION STUDY OF XYLITOL AS PCM IN TWO DIFFERENT CRYSTALLIZATION SYSTEMS: A RHEOMETER AND A LAB-SCALE PROTOTYPE Miguel Navarro, Ana Lazaro, Monica Delgado, Gonzalo Diarce Belloso	CHARACTERISATION OF DIFFERENT DARKEN SAND PARTICLES AND BEHAVIOUR UNDER FLUIDIZED AND IRRADIATED CONDITIONS Leonel Mario Cerutti Cristaldo, Minerva Díaz Heras, José A. Almendros-Ibáñez, Jesús Canales Vázquez, Juan Carlos Pérez Flores
18:00	THERMAL CONTROL CIRCUIT MODELLING WITH TCCBUILDER Katja Vozel, Katja Klinar, Nada Petelin, Andrej Kitanovski	IMPROVING VIRTUAL HEAT TRANSFER DESCRIPTION OF DEVELOPED AND UNDEVELOPED ANNULAR GAP FLOWS AT HIGH TAYLOR NUMBERS Anton Žnidarčič, Tomaž Katrašnik	-	ACCELERATION OF FLOW-FOCUSED LIQUID JETS IN THE PRESENCE OF A STRONG ELECTRIC FIELD Bor Zupan, Saša Bajt, Henry N. Chapman, Alfonso M. Gañán-Calvo, Božidar Šarler	EFFECT OF WATER INJECTOR LOCATION ON COMBUSTION AND PERFORMANCE OF AN HCCI ENGINE - A CFD ANALYSIS Bharat Naik, JM Mallikarjuna	-	OPTICAL CHARACTERIZATION OF A SOLAR CONCENTRATING DISH SYSTEM UP TO 2000 SUNS Clemens Suter, Saurabh Tembhurne, Isaac Holmes-Gentle, S H

18:15	-	EXPERIMENTAL AND NUMERICAL CONVECTIVE HEAT TRANSFER PERFORMANCE ANALYSIS OF A CONFINED ROUND JET WITH TRIANGULAR TABS UNDER CROSSFLOW INFLUENCE Mehmet Saglam, Buğra Sarper, Soner Birinci, Orhan Aydın	-	-	NUMERICAL INVESTIGATION OF DIFFERENT COOLING TECHNOLOGIES DURING HEATWAVES AND POWER OUTAGES IN CATALAN MEDITERRANEAN BUILDINGS Núria Garrido, Roser Capdevila, Enrico Tontodonati, Luca Borghero	-	EFFECTS OF ISOCHORIC FREEZING ON QUALITY CHARACTERISTICS OF RAW BOVINE MILK Alan Maida
18:30	-	-	-	-	-	-	-

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: Janusz Szmyd Arnold conference hall
9:45-10:30	**Plenary lecture** DIGITAL TWINS OF THERMAL SYSTEMS Perumal Nithiarasu Chair: Stephan Kabelac Arnold conference hall
10:30-11:00	**Coffee break** Foyer
11:00-11:45	**Plenary lecture** MULTISCALE MODELLING IN CONGENITAL HEART DISEASE Alain Kassab Chair: Ryszard Białecki Arnold conference hall
11:45-12:30	**Plenary lecture** DATA-DRIVEN EVOLUTIONARY DEEP LEARNING IN HIGH TEMPERATURE BASIC OXYGEN STEELMAKING OPERATION Nirupam Chakraborti Chair: Pedro Coelho Arnold conference hall

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

Wednesday, 12 June 2024

08:00-16:30	**Registration** Foyer						
9:00-9:45	**Plenary lecture** MULTIPHASE/PHYSIC MODELLING OF SOLIDIFICATION WITH INDUSTRIAL RELEVANCE Andreas Ludwig Chair: Miha Založnik Arnold conference 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: Iztok Golobič Arnold conference hall						
10:30-11:00	**Coffee break** Foyer						
11:00-12:30	**Poster session** Sonce conference hall						
12:30-14:00	**Lunch break** Restaurant						
	Arnold 1	**Arnold 2**	**Sonce**	**Zrak**	**Voda**	**Straža 1**	**Straža 5**

14:00-16:00	**SpS6-3** Chair: Andrej Kitanovski	**Heat transfer 3** Chair: Sasa Kenjeres	**SpS1-3: Condensation and measurement techniques** Chair: Maria Rosaria Vetrano	**SpS7-2: Thermochemical and Latent** Chair: ~~Anastasia Stamatiou~~ **Dominic Groulx**	**SpS3-1** Chair: Sara Rainieri	**SpS2-2: Advances in meshfree methods** Chair: Ching Shyang Chen	**Fluid flow 2** Chair: Karl Ponweiser
14:00	**Keynote lecture** THERMAL CONTROL DEVICES AND THERMAL CIRCUITS Katja Klinar, 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 Arianna Berto, Marco Azzolin, Pascal Lavieille, Stefano Bortolin, Marc Miscevic, Davide Del Col	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 EXCHANGERN 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		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	ANALYSIS OF MICROSCALE INNER-GROOVED TUBES DURING CONDENSATION OF LOW-GWP R1234ZE(E): FLOW REGIME VISUALIZATION AND ENHANCEMENT FACTORS Nima Irannezhad, Luisa Rossetto, Andrea Diani	WATER ADSORPTION ON MICROPOROUS CHABAZITES AS THERMAL ENERGY STORAGE MATERIALS Alenka Ristić, Suzana Mal, Natasa Zabukovec Logar	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, Sara Rainieri		ON A PROPER TENSORIAL SUBGRID HEAT FLUX MODEL FOR LES Francesc Xavier Trias Miquel, Andrey Gorobets, A. Oliva

14:30	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, Lluis Manosa, Andrej Kitanovski	DNS OF MARANGONI EFFECTS ON A SUSPENSION OF DROPLETS IN MICROGRAVITY USING THE UNSTRUCTURED CONSERVATIVE LEVEL-SET METHOD Nestor Vinicio Balcazar Arciniega, Joaquim Rigola, A. Oliva	EXPERIMENTAL INVESTIGATION OF CONDENSATION HEAT TRANSFER ON GROOVED ALUMINUM SURFACES Evgeny Shatskiy, Parth S Kumavat, Seamus O'shaughnessy	OPTIMIZING MOF PROPERTIES FOR SEASONAL HEAT STORAGE: A MACHINE LEARNING APPROACH Eliodoro Chiavazzo, Giovanni Trezza, Luca Bergamasco, Matteo Fasano	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	FUNCTIONAL GRADATION OF MATERIAL COEFFICIENTS AND SIZE –EFFECTS IN HEAT CONDUCTION: NUMERICAL SIMULATIONS Vladimir Sladek, Jan Sladek	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
14:45	MIXED CONVECTION BY BUOYANCY AND MAGNETOTHERMAL FORCES Masayuki Kaneda, Shunya Yoshimura, Kyosuke Urabe, Kazuhiko Suga	THERMODYNAMIC ANALYSIS OF TWO-FLUID, TWO-PHASE IMMERSION COOLING SYSTEM FOR COOLING OF ELECTRONIC COMPONENTS Balaji C, V.B. Krishnadasan, Pratheek Suresh	INVESTIGATION OF DROPWISE CONDENSATION OF WATER THROUGH AN EFFICIENT INDIVIDUAL-BASED MODEL Marco Tancon, Antonio Abbatecola, Matteo Mirafiori, Stefano Bortolin, Davide Del Col	ADVANCING THERMOCHEMICAL STORAGE: SYNTHESIS AND CHARACTERIZATION OF CEMENT-BASED COMPOSITE MATERIALS. Alessio Mondello, Matteo Morciano, Luca Lavagna, Matteo Pavese, Eliodoro Chiavazzo	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	NUMERICAL SOLUTIONS OF DIRECT AND INVERSE THREE-DIMENSIONAL BOUNDARY VALUE PROBLEMS BY USING THE METHOD OF FUNDAMENTAL SOLUTIONS AND THE PARTICLE SWARM OPTIMIZATION Chia-Ming Fan, Fu-Li Chang, Chiung-Lin Chu	MULTIPHASE FLOW SIMULATION IN HYBRID POROUS STRUCTURE Majid Eshagh Nimvari, Michael Gibbons

15:00	AN IMPROVED PHYSICS-INFORMED NEURAL NETWORKS FOR TRANSIENT HEAT CONDUCTION ANALYSIS IN FUNCTIONALLY GRADED MATERIALS Zhuojia Fu, Shuainan Liu, Wenzhi Xu, Yuan Guo	THERMAL MANAGEMENT OF A COMPLEX SYSTEM ON A CHIP USING MULTIPLE PCM BASED HEAT SINK Balaji C, Srinivas Ramineni, Kasavajhula Naga Vasista	DRAG EFFECT OF STEAM FLOW ON DROPLET REMOVAL DURING DROPWISE CONDENSATION AT DIFFERENT SURFACE INCLINATIONS Antonio Abbatecola, Marco Tancon, Stefano Bortolin, Davide Del Col	STUDY OF THE PHASE CHANGE PROCESSES OF ENCAPSULATED PHASE CHANGE MATERIAL FOR SOLAR THERMAL ENERGY STORAGE IN DOMESTIC HOT WATER PRODUCTION Cristina Bianqui, Antonio Viedma, Alberto Egea, Alberto García Pinar	ENHANCING THE DEGREES OF FREEDOM OF TOPOLOGY OPTIMIZATION VIA VARIABLE-POROSITY METAL FOAMS: DESIGN OF HEAT CONDUCTION PATHS IN A VOLUME-TO-POINT PROBLEM Gerardo Maria Mauro, Nicola Bianco, Andrea Fragnito, Marcello Iasiello	APPLICATION OF THE LOCALIZED METHOD OF FUNDAMENTAL SOLUTIONS TO HEAT TRANSFER PROBLEMS Csaba Gáspár	CAVITATION BUBBLE INTERACTION WITH COMPLIANT STRUCTURES ON A MICROSCALE Jure Zevnik, Žiga Pandur, David Stopar, Matevž Dular
15:15	ELECTRONIC COOLING ABOVE 1.5 K Joel Hätinen, Alberto Ronzani, Renan Loreto, Emma Mykkänen, Klaara Viisanen, Tuure Rantanen, Joel Geisor, Antti Kemppinen, Mika Prunila	THERMAL PERFORMANCE AGAINST GRAVITY OF AN ALSI10 AM HEAT PIPE WITH A DIAMOND LATTICE STRUCTURE WICK Luigi Vitali, Simone Menini, Manfredo Guilizzoni, Alfonso Niro	ADVANCEMENTS IN LASER-BASED SPATIOTEMPORAL MEASUREMENTS OF FLOW BOILING Surya Narayan, Zengchao Chen, Aleksei S. Lobasov, Konstantin S. Pervunin, Matteo Bucci, Christos Markides	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	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	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	THE KINETIC ENERGY TRANSFER ANALYSIS BETWEEN THE GAS AND THE LIQUID IN GAS DYNAMIC VIRTUAL NOZZLE MICRO FLOW-FOCUSING Krištof Kovačič, Božidar Šarler

15:30	2D TRANSITION METAL DICHALCOGENIDES AS HIGHLY ANISOTROPIC AND COMPACT THERMAL BARRIERS FOR THERMAL MANAGEMENT APPLICATIONS Rem Elnahas, Jimmy Faria Albanese, Miguel Muñoz Rojo	NUMERICAL ANALYSIS OF TRANSPORT PHENOMENA IN A STEAM REFORMING REACTOR WITH OPTIMAL MULTI-SEGMENTS CATALYST DISTRIBUTION Janusz Szmyd, Marcin Pajak, Grzegorz Brus, Shinji Kimijima	THE EFFECTIVE USE OF FOCUSED SHADOWGRAPHY FOR SINGLE BUBBLE NUCLEATE POOL BOILING INVESTIGATIONS Marilize Everts, Matthias Welzl, Dieter Brüggemann	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	NUMERICAL SIMULATION-BASED DESIGN OF OPTIMIZED SURFACES FOR CONDENSATION HEAT TRANSFER Arianna Berto, Mario Junio Gabellone, Nicolò Mattiuzzo, Stefano Bortolin, Davide Del Col	AN ADAPTIVE ONE-STEP FICTITIOUS MPS-MFS USING EFFECTIVE CONDITION NUMBERS James Snead, C.S. Chen, Božidar Šarler	INVESTIGATION OF UNSTEADY SKIN FRICTION EFFECTS IN TRANSIENT TWO-PHASE PIPE FLOW Anton Bergant
15:45	RIDING THE THERMAL WAVE: A REVIEW OF MATERIALS FOR THERMAL SWITCHES Katja Klinar, Katja Vozel, Andrej Kitanovski	-	VAPOR BUBBLE ON A SINGLE NUCLEATION SITE : TEMPERATURE AND HEAT FLUX MEASUREMENTS Himanshi Kharkwal, Mohammed Zamoum, Magali Barthés, François Lanzetta, Hervé Combeau, Lounès Tadrist	-	A NOVEL TYPE OF ADDITIVELY MANUFACTURED HIGH PRESSURE MINI-CHANNEL HEAT EXCHANGER FOR PRECOOLING IN HYDROGEN REFUELING STATIONS Robin Kahlfeld, Felix Müller, Henrik Müntefering, Paul Gembarski, Ruben Steinhoff, Stephan Kabelac	SIMULATION OF TEMPERATURE FIELD IN STEEL BILLETS MOVING IN THE REHEATING FURNACE BY A MESHLESS METHOD Qingguo Liu, Umut Hanoglu, Božidar Šarler	INFLUENCE OF BAFFLE HEIGHT ON THE IN-CYLINDER MIXING AND PERFORMANCE CHARACTERISTICS OF A GASOLINE DIRECT INJECTION ENGINE - A CFD INVESTIGATION Vishal V, JM Mallikarjuna
16:00-16:30	**Coffee break** Foyer						

	Arnold 1	Arnold 2	Sonce	Zrak	Voda	Straža 1	Straža 5
16:30-18:30	**SpS6-4** Chair: Miguel Muñoz Rojo	**Heat transfer 4** Chair: Gian Luca Morini	**SpS1-4: Numerical studies and prognostics** Chair: Catherine Colin	**Heat transfer 5** Chair: Anton Bergant	**SpS3-2** Chair: Sara Rainieri	**SpS2-3: Advances in meshfree methods with application** Chair: Andreas Karageorghis	**SpS5-2: Flow phenomena and heat transfer in casting processes** Chair: Miha Založnik
16:30	OPPORTUNITIES FOR THERMALLY-AWARE DEVICES AND CONTROL IN ALGAN/GAN ON SI(C) POWER ELECTRONIC SYSTEMS Karen Dowling, Lex Pardon, Ananth Saran Yalamarthy, Miguel Muñoz Rojo, Debbie Senesky	TEMPERATURE FORECASTING FOR SINGLE-PHASE IMMERSION COOLING SYSTEM BASED ON MACHINE LEARNING Pratheek Suresh, Sai Ashwin R, C. Balaji	A HYBRID ATOMISTIC-CONTINUUM FRAMEWORK FOR MULTISCALE SIMULATIONS OF BOILING Mirco Magnini, Edward Smith, Gabriele Gennari, Gavin Pringle	EXPERIMENTAL INVESTIGATION OF EFFECTS OF CONVECTIVE HEAT TRANSFER AND THERMAL PERFORMANCE OF IMPINGING JET ON A METAL PLATE WITH POROUS MEDIA Abdul Qadeer Khoso, Atiq ur Rehman Fareedi, Hurmat Khan, Bernardo Buonomo, Oronzio Manca, Sergio Nardini	A NEW TEST SECTION MADE VIA ADDITIVE MANUFACTURING TO PERFORM LOCAL HEAT FLUX MEASUREMENTS Gianluca Cattelan, Marco Azzolin, Stefano Bortolin, Massimiliano Bonesso, Adriano Pepato, Davide Del Col	AN IMPROVED TWO-STEP MPS-MFS GHOST POINT METHOD WITH EFFECTIVE CONDITION NUMBER C.S. Chen, Lionel Amuzu, James Snead	ON THE CONDITIONS FOR THE OCCURRENCE OF CRYSTAL AVALANCHES DURING ALLOY SOLIDIFICATION Golshan Shayesteh, Andreas Ludwig, Mihaela Stefan-Kharicha, Menghuai Wu, Abdellah Kharicha
16:45	MODELING THE EFFECT OF THERMAL CONTACT RESISTANCE ON THE CONDUCTION OF 3D FIBROUS MATERIALS IN RELATION TO FIBER PROPERTIES Clémence Gaunand, Yannick De Wilde, Adrien François, Veneta Grigorova-Moutiers, Karl Joulain	SENSITIVITY OF AN ELECTRICAL IMPEDANCE-BASED SENSOR FOR THE LIQUID FRACTION ESTIMATION DURING MELTING AND SOLIDIFICATION INSIDE A VERTICAL RECTANGULAR ENCLOSURE Carolina Mira Hernandez, Simone Mancin	SUBGRID MOVING CONTACT LINE MODEL FOR DIRECT NUMERICAL SIMULATION OF BUBBLE DYNAMICS IN POOL BOILING OF PURE FLUIDS Vadim Nikolayev, Linkai Wei, Guillaume Bois	EFFECT OF USING AN IONIC LIQUID AS ADDITIVE IN WATER/LIBR SOLUTION FOR A HORIZONTAL FALLING FILM ABSORBER Hussain Ahmed Tariq, Mahmoud Bourouis, Alberto Coronas	EFFECT OF THE PLATES GEOMETRY ON THE PERFORMANCE OF A CROSS-FLOW RECUPERATOR FOR INDIRECT EVAPORATIVE COOLING SYSTEMS Roberta Caruana, Luca Marocco, Stefano De Antonellis, Manfredo Guilizzoni	AN EFFECTIVE ALGORITHM FOR COMPUTING THE EFFECTIVE CONDITION NUMBER WITH APPLICATION TO RBFS Tsung-Lin Lee, Amir Noorizadegan	A NEW HYBRID LOCAL RADIAL BASIS FUNCTION COLLOCATION METHOD FOR 2.5D THERMO-MECHANICAL MODELLING OF CONTINUOUS CASTING OF STEEL Gašper Vuga, Tadej Dobravec, Boštjan Mavrič, Božidar Šarler

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

17:30	FAST THERMODYNAMIC SIMULATION OF ELECTRICAL CONTROL CABINETS VIA THERMAL RESISTOR NETWORKS Daniel Haag, Prof. Dr.-Ing. Konstantinos Stergiaropoulos	ENHANCING THERMAL MANAGEMENT IN CYLINDRICAL LI-ION BATTERY THROUGH PCM INTEGRATION WITH VARIABLE CONTACT AREA Ekta Singh Shrinet, Lalit Kumar	HYDRODYNAMIC CHARACTERISTICS OF THE MICROLAYER UNDER BOILING VAPOUR BUBBLES Xiaolong Zhang, Ismail El Mellas, Mirco Magnini	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	MEASUREMENT OF EFFECTIVE THERMAL CONDUCTIVITY OF COMPOSITE POWDERS OF 2D MATERIALS AND METALS FOR ADDITIVE MANUFACTURING Hyunjong Lee, Apostolos Koutsioukis, Davoud Jafari, Bernard J. Geurts, Wessel W. Wits	RBF WENO RECONSTRUCTIONS WITH ADAPTIVE ORDER USING A SIMPLIFIED SMOOTHNESS INDICATOR AND APPLICATIONS TO CONSERVATION LAWS Chiehsen Huang	INFLUENCE OF THE CORIOLIS FORCE ON THE SOLIDIFICATION OF A FE-0.82WT.%C ALLOY Ibrahim Sari, Menghuai Wu, Kharicha Abdellah
17:45	HEAT TRANSPORT ACROSS NANOMETRE-SIZED GAPS Oscar Mateos, Pablo M. Martínez, J. G. Vilhena, Juan Cuevas	STUDY OF THE THERMAL DYNAMIC BEHAVIOR OF A RECTANGULAR ENCLOSURE WITH FINS EMBEDDED IN PCM Abderrahmane El Hanafi, Nicolas Blet, Abdelhamid Kheiri, Benjamin Remy	REMAINING USEFUL LIFE PROGNOSTICS DURING BOILING-INDUCED SURFACE DEGRADATION Jure Berce, Klara Arhar, Matic Može, Matevž Zupančič, Iztok Golobič	TOPOLOGY OPTIMIZATION OF PCM-BASED FINNED HEAT SINK FOR COOLING A SYSTEM-ON-CHIP Sayan Majumder, Azharuddin Mohammad, C. Balaji	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	SOLVING NONLINEAR TIME-DEPENDENT PDES USING POLYHARMONIC SPLINES AND POLYNOMIALS Guangming Yao, Shawn Murphy, Trevor Francisco, Olaoluwa Ogunleye	INTELLIGENT CASTING BASED ON HOLLOW MOLD AND CLOSED LOOP COOLING CONTROL Jinwu Kang, Baolin Liu, Jingying Xu, Xiaolong Wang, Jiwu Wang

18:00	BALLISTIC-DIFFUSIVE HEAT TRANSPORT CROSSOVER IN MOLECULAR JUNCTIONS Pablo M. Martínez, Oscar Mateos, Juan Cuevas, J. G. Vilhena	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	-	CFD DESIGN AND OPTIMIZATION OF A MULTI-PROBE DEVICE FOR TEMPERATURE MEASUREMENTS IN WASTE-TO-ENERGY PLANTS Giorgio Grossi, Fausto Arpino, Christian Canale, Gino Cortellessa, Giorgio Ficco, Tonino Lombardi	EXPERIMENTAL INVESTIGATION OF THE COOLING PERFORMANCE OF AN ADDITIVELY MANUFACTURED PROTOTYPE FOR NUCLEAR FUSION ENERGY APPLICATION Giacomo Favero, Massimiliano Bonesso, Razvan Dima, Luca Doretti, Adriano Pepato, Giulia Righetti, Simone Mancin	OPTIMAL DESIGN IN 2D FORCED CONVECTION PROBLEM USING GENERALIZED FINITE DIFFERENCE METHOD AND PARTICLE SWARM OPTIMIZATION Chiung-Lin Chu, Chia-Ming Fan	DETERMINATION OF TRANSIENT HEAT TRANSFER BY COOLING CHANNEL IN HIGH-PRESSURE DIE CASTING USING INVERSE METHOD Jan Bohacek, Krystof Mraz, Jiri Hvozda, Alexander Vakhrushev, Ebrahim Karimi Sibaki
18:15	-	MODELING THERMAL DYNAMICS IN INTERMITTENT OPERATION OF A PEMEL FOR GREEN HYDROGEN PRODUCTION Elisabet Mas de les Valls, Roser Capdevila Paramio, Juliana Jaramillo, Wilhelm Buchholz	-	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	STRATIFIED LIQUID-LIQUID FLOW THROUGH MICROCHANNELS WITH GROOVED WALLS Mainendra Dewangan, Tim Persoons	THE METHOD OF FUNDAMENTAL SOLUTIONS AND RADIAL BASIS FUNCTIONS FOR DIRECT AND INVERSE BIOHEAT TRANSFER PROBLEMS Jakub Grabski	-

18:30	-	-	-	COMPARATIVE ANALYSIS OF THE BEHAVIOUR OF THE HOT WATER PRODUCTION SYSTEM OF AN INDOOR SWIMMING POOL F.J.S. Velasco, J. Giménez-Villa, Jose R. Garcia-Cascales, Fernando Illán-Gómez, Ramón A. Otón Martínez, J.P. Delgado Marín	THERMAL MANAGEMENT OF MULTI-CHIP ELECTRONIC MODULE WITH WAVY FIN HEAT SINK-ASSISTED IMMERSION COOLING Pratheek Suresh, Kasavajhula Naga Vasista, Shailesh Kushwaha, C. Balaji	-	-
20:00-23:00	**Conference dinner at Grand Hotel Toplice**						

Thursday, 13 June 2024

08:00-12:00	**Registration** Foyer						
	Arnold 1	**Arnold 2**	**Sonce**	**Zrak**	**Voda**	**Straža 1**	**Straža 5**
9:00-11:30	**Application & Computing** Chair: Matjaž Hriberšek	**Heat transfer 6** Chair: Cao Zhen	**SpS2-4: Advances in meshfree methods** Chair: ~~Elisabeth Larsson~~ Tadej Dobravec	**SpS7-3: Modeling & Build and Clothing** Chairs: Dominic Groulx & Sebastian Gamisch	**SpS4** Chairs: Alain Kassab & Ryszard Białecki	-	**Heat transfer 7** Chair: Nicola Massarotti
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 Sayan Majumder, Rajesh Akula and C. Balaji	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,	-	THERMAL PERFORMANCE OF A CHAOTIC HEAT EXCHANGER : AN EXPERIMENTAL STUDY Nouhaila El Hani, Tom Lacassagne, Souria Hamidouche, Loïc Le Bihan, André Bontemps, S. Amir Bahrani

9:15	PUMPED PHASE-TRANSITIONAL CO2 LOOP FOR MULTI-COMPONENT ELECTRONICS COOLING Wessel Wits, Myron Middelhuis, Miguel Muñoz Rojo	EXPERIMENTAL STUDY OF CONVECTIVE HEAT TRANSFER IN ADDITIVE MANUFACTURED MINI-CHANNELS: THE IMPACT OF THE PRANDTL NUMBER Mohammadreza Kadivar, Luca Cozzarolo, Mats Kinell, Karl-Johan Nogenmyr, David Tormey, Gerard McGranaghan	LESSONS FROM ACCELERATING AN RBF-FD PHASE-FIELD MODEL OF DENDRITIC GROWTH ON GPUS Boštjan Mavrič, Tadej Dobravec, Božidar Šarler	LIMITATIONS OF THE ENTHALPY-POROSITY METHOD FOR NUMERICAL SIMULATION OF CLOSE-CONTACT MELTING ON ASYMMETRIC SURFACES Victor Van Riet, Tomer Shockner, Wim Beyne, Gennady Ziskind, Michel De Paepe, Joris Degroote	Martin Cinelli, Eduardo Divo, Alain Kassab, William DeCampli	-	LOW-ORDER DESIGN MODELS FOR LATENT THERMAL ENERGY STORAGE Wim Beyne, Joris Degroote, Michel De Paepe
9:30	BUILDING A REDUCED ORDER MODEL FROM CFD DATA ON A FULL PLANT TO EVALUATE OPTIMAL CLIMATE CONDITIONS Wito Plas, Michel De Paepe, Toon Demeester	REVIEW OF "COLD SHOCK" CASES IN OPERATION OF LOOP HEAT PIPES AND RELATED THERMAL INSTABILITIES Luka Ivanovskis, Donatas Mishkinis	ENHANCING MESHFREE METHODS WITH RBFS: AN APPROACH USING APPROXIMATE LEAST SQUARES SOLUTIONS Leihsin Kuo, C.S. Chen	NUMERICAL MODELLING OF THERMAL HYSTERESIS IN MELTING AND SOLIDIFICATION OF PHASE CHANGE MATERIALS Maité Goderis, Adam Buruzs, Fabrizia Giordano, Tilman Barz, Wim Beyne, Michel De Paepe	NON-INVASIVE THERMAL MEASUREMENTS DURING NEWBORN'S THERAPEUTIC HYPOTHERMIA AND PROCESSING OF THEIR RESULTS Andrzej J. Nowak, Jakub Tumidajski, Daniel Wagstyl, Dominika Bandola, Mateusz Bojdol, Ziemowit Ostrowski, Marek Rojczyk, Wojciech Walas, Zenon Halaba	-	EVALUATION OF THE EFFECTS OF VARIOUS FAN PARAMETERS ON THE COOKING PROCESS IN COMMERCIAL COOKING OVENS Remzi Timur, Zafer Kahraman, Murat Haci, Hakan Soyhan

9:45	NUMERICAL MODELLING OF HEAT AND MASS TRANSFER DURING CAKE BAKING Patrick EL Helou, Pascal Le Bideau, Adrien Fuentes, Patrick Glouannec	FREE-SURFACE JET HEAT TRANSFER REVISITED: FROM AN INDIFFERENT REGIME TO THE RE-EMERGENCE OF THE OFF-CENTER PEAK Herman Haustein, Ron Harnik	HYPERVISCOSITY STABILISATION OF THE RBF-FD SOLUTION TO NATURAL CONVECTION Miha Rot, Žiga Vaupotič, Gregor Kosec	MODELING OF PHASE CHANGE HYSTERESIS DURING PARTIAL PHASE CHANGE WITH THE "SHIFT"-METHOD Sebastian Gamisch, Stefan Gschwander	BLOOD FLOW IN DEFORMING VESSELS Ryszard Białecki, Wojciech Adamczyk, Ziemowit Ostrowski, Bartlomiej Melka, Maria Gracka, Krzysztof Psiuk-Maksymowicz, Damian Borys, Aleksander Sinek, Mateusz Mesek, Jacob Sturdy, Adam Golda, Jan Juszczyk	-	IMPACT OF ONE AND TWO PARTIAL COOLING DUCTS ON THE TEMPERATURE RISE IN TRANSFORMER WINDINGS Goran Bulatovic, Peter Bokes
10:00	NUMERICAL INVESTIGATION OF METHANE-AIR JET FLAME WITH HYDROGEN ADDITION IN INDUSTRIAL KILN BURNERS Jiannan Liu, Joaquim Rigola, Eugenio Schillaci, Carlos David Perez Segarra	MODULATION OF FLOW, HEAT, AND MASS TRANSFER IN TURBULENT DOUBLE-DIFFUSIVE CONVECTION Sasa Kenjeres, Rona Roovers	FOURTH-ORDER PHASE-FIELD SIMULATION OF CRACKS USING STRONG FORM MESHLESS METHOD Izaz Ali, Gašper Vuga, Boštjan Mavrič, Umut Hanoglu, Božidar Šarler	CFD SIMULATION OF SOLID/LIQUID PHASE CHANGE IN COMMERCIAL PCMS USING THE SLPCMLIB LIBRARY Adam Buruzs, Fabrizia Giordano, Manuel Schieder, Christoph Reichl, Maité Goderis, Wim Beyne, Michel De Paepe, Tilman Barz	A NEEDLE-FORM 3-OMEGA SENSOR FOR THERMAL CHARACTERIZATION OF CRYOPRESERVED BIOLOGICAL TISSUES Spencer Alliston, Chris Dames	-	NUMERICAL ANALYSIS ON THE ENERGY EFFICIENCY OF DRYING OF MASONRY WALL AFTER FLOODING USING VARIABLE DRYING AIR TEMPERATURE PROFILE Michał Wasik, Piotr Łapka
10:15	ENSEMBLE AVERAGING PARALLEL-IN-TIME APPROACH FOR INDUSTRIAL LES Josep Plana-Riu, Francesc Xavier Trias Miquel, Àdel Alsalti-Baldellou, Guillem Colomer, A. Oliva	ENGINEERED ADVANCED MATERIALS FOR LATENT THERMAL ENERGY STORAGE Amit Mishra, Alessandro Ribezzo, Matteo Morciano, Luca Bergamasco, Matteo Fasano, Eliodoro Chiavazzo	PHASE-FIELD FORMULATED MESHLESS SIMULATION OF RAYLEIGH-TAYLOR INSTABILITY PROBLEM Khush Bakhat Rana, Boštjan Mavrič, Božidar Šarler	MODELLING A LATENT THERMAL ENERGY STORAGE PROTOTYPE WITH A DIPHASIC HEAT TRANSFER FLUID Amandine Da Col, Fabrice Bentivoglio, Benoit Stutz	ASSESSMENT OF LOCAL TEMPERATURE ELEVATION AT THE SURFACE OF TISSUE EXPOSED TO RADIATION OF MILLIMETER WAVES USING SIMPLIFIED ANALYTICAL APPROACH Dragan Poljak, Josipa Šarić	-	MODELLING TURBULENT GAS-SOLID HEAT TRANSFER IN A PACKED BED HEAT EXCHANGER: EXPERIMENT AND VALIDATION Jérémie Lagarde, Harry Simpson

10:30	ON THE FEASIBILITY OF OVERNIGHT INDUSTRIAL HIGH-FIDELITY SIMULATIONS OF CSP TECHNOLOGIES ON MODERN HPC SYSTEMS Àdel Alsalti-Baldellou, Guillem Colomer, Johannes Arend Hopman, Xavier Álvarez Farré, Andrey Gorobets, Francesc Xavier Trias Miquel, Carlos David Perez Segarra, A. Oliva	~~EXPERIMENTAL ANALYSIS OF AN INNOVATIVE GEO-EXCHANGE SYSTEM INSTALLED ON THE ISLAND OF ISCHIA, IN SOUTHERN ITALY~~ ~~Vincenzo Guida, Nicola Massarotti, Alessandro Mauro~~ **CANCELLED**	AN EFFICIENT LOCALIZED COLLOCATION METHOD BASED ON NONSINGULAR FUNDAMENTAL SOLUTIONS FOR HEAT CONDUCTION ANALYSIS IN FUNCTIONALLY GRADED MATERIALS Shuainan Liu, Zhuojia Fu, Qingguo Liu	INFLUENCE OF PCMS ON THERMAL PERFORMANCE OF WET FIRE PROTECTIVE CLOTHING André Malaquias, João Bernardo Lares Moreira de Campos	ON SOME COMPUTATIONAL ASPECTS FOR ELECTROMAGNETIC-THERMAL DOSIMETRY OF MM WAVES Mario Cvetković, Hrvoje Dodig, Dragan Poljak	-	SIMPLE MODEL OF LIQUID PISTON COMPRESSOR Nejc Cerkovnik, Luka Čurović, Jurij Prezelj
10:45	A PRELIMINARY MODEL OF WATER AND SALT TRANSPORT IN A LABORATORY SCALE PRESSURE-RETARDED OSMOSIS (PRO) MODULE Piotr Łapka, Juliusz Wachnicki, Piotr Furmański	STRUCTURED ILLUMINATION WITH INFRARED IMAGING FOR MEASURING THERMAL CONDUCTIVITY Ashwath Bhat, Chris Dames	-	ANALYZING THE IMPACT OF USING PHASE CHANGE MATERIALS ON ENERGY CONSUMPTION IN BUILDINGS: A CASE STUDY Igor Vušanović, Boris Hrnčić	-	-	-
11:00	ENHANCING THERMAL MODELLING OF ELECTRIC MACHINES: STEADY-STATE VERIFICATION OF A NOVEL METHODOLOGY Jasper Nonneman, Ilya T'Jollyn, Michel De Paepe	LES INVESTIGATIONS OF TURBULENT HEAT TRANSFER STRUCTURES WITH EXPONENTIAL POWER ESCALATION Elie Roumet, Raksmy Nop, Nicolas Dorville, Marie-Christine Duluc	-	VENTILATION SYSTEM WITH HEAT RECOVERY AND PCM THERMAL ENERGY STORAGE FOR "FREE" COOLING IN BUILDINGS Uroš Stritih, Primož Lenassi, Urška Mlakar, Dr. Eneja Osterman	-	-	-

11:15	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 **REASSIGNED FROM MONDAY, AT 14:45 IN STRAŽA 5**	-	-	THERMAL MANAGEMENT SYSTEM FOR CELL-BIOLOGY EXPERIMENTAL SETUP STUDYING CALCIUM SIGNALING IN MICROGRAVITY SETTINGS Adina Hochuli, Patrick Estermann, Raphael Kummer, Simon Wuest, Sebastian Ammann, Anastasia Stamatiou, David Schiffmann, Anabel Palacios, Christoph Zumbühl, Maik Böhmer	-	-	-
11:30-12:00	**Coffee break** Foyer						
12:00-12:30	**Take-away lecture and conference closure** REFLECTIONS ON SOME ACHIEVEMENTS IN THERMOFLUID SCIENCES RELATED TO SLOVENIANS AND SLOVENIA Božidar Šarler Chair: Janusz Szmyd Arnold conference hall						

POSTERS

EUROTHERM YOUNG SCIENTIST PRIZE, Laura Nebot Andrés

EUROTHERM YOUNG SCIENTIST AWARD, Arianna Berto

EUROTHERM YOUNG SCIENTIST AWARD, Alekos Ioannis Garivalis

1. THE INFLUENCE OF LIQUID HEIGHT TO BUBBLE SIZE RATIO ON THE BOILING CRISIS IN POOL BOILING, Rodrigo Cavalcanti Alvarez, Matteo Bucci
2. CONFINED BOILING ON AN IMMERSED HEATED CORNER: INFLUENCE OF ONE WALL ON THE OTHER, Nicolas Baudin, Antonio della Volpe, Stéphane Roux, Robert Yu, Jean-Michel Fiard, Jerome Bellettre
3. 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
4. CONDENSATION OF WATER ON PDMS-COATED COPPER SURFACES FOR FRESH WATER HARVESTING, Till Pfeiffer, Tatiana Gambaryan Roisman, Peter Stephan, Hans-Jurgen Butt, Michael Kappl
5. FLOW BOILING HEAT TRANSFER IN A PLATE HEAT EXCHANGER WITH MIXED CHEVRON ANGLE PLATES, Chien-Yuh Yang, Mu Ting Hsieh
6. COMPARISON OF TEMPERATURE-SENSITIVE COATINGS IMMOBILIZED IN POLYMERIC MATRICES FOR FAST/HIGH-RESOLUTION HEAT TRANSFER TRANSIENT CHARACTERIZATION, Maria Rosaria Vetrano, Matevz Vodopivec, Donato Fontanarosa, Erin Koos, Yanshen Zhu
7. EFFECT OF HYDROPHOBIC COATING ON OPTIMIZATION OF DROPWISE CONDENSATION OF PURE VAPOR OVER HYBRID SURFACES, Nicola Suzzi, Giulio Croce
8. 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
9. GROOVED HYBRID COPPER SURFACES FOR CONDENSATION HEAT TRANSFER, Amit Goswami, Suresh C. Pillai, Gerard McGranaghan
10. NUCLEATION, GROWTH AND BUBBLE DETACHMENT IN LIQUID-VAPOR PHASE CHANGE ON STRUCTURED SURFACES, Klara Arhar, Matic Može, Matevž Zupančič, Iztok Golobič
11. STUDY OF NUCLEATE BOILING GROWTH REGIME ON THIN SURFACES, Yohann Jaunet, Mattia Bucci, Matevž Zupančič, Julien Sebilleau, Catherine Colin, Iztok Golobič
12. ONLINE AND REAL-TIME MEASUREMENT OF BOILING ACOUSTIC EMISSIONS IN FLOW BOILING, Matthew Hughes, Matteo Bucci
13. THE ROLE OF SUPERHYDROPHOBIC SURFACE STABILITY IN ANTI-ICING APPLICATIONS, Samo Jereb, Matic Može, Matevž Zupančič, Iztok Golobič
14. STUDY ON THE DIFFERENCE IN FLOW BOILING PERFORMANCE OF ALLOY SUBSTRATE SURFACES IN A RECTANGULAR CHANNEL, Sihong He, Jiyun Zhao
15. PREDICTION OF HEAT TRANSFER COEFFICIENT AND PRESSURE DROP OF FLOW BOILING AND CONDENSATION USING MACHINE LEARNING, Edgar Santiago Galicia, Andres Hernandez-Matamoros, Akio Miyara

16. NUMERICAL MODELING AND SIMULATION OF NEAR-CONTACT-LINE EVAPORATION KINETICS, Irina Graur Martin, Alexey Rednikov, Fedor Ronshin, Lounès Tadrist
17. 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, Malte Nageler, Stephan Kabelac
18. MESHLESS THROUGH-PROCESS MODELLING OF STEEL PRODUCTION PATH, Božidar Šarler, Izaz Ali, Tadej Dobravec, Umut Hanoglu, Qingguo Liu, Boštjan Mavrič, Miha Kovačič, Katarina Mramor, Matjaž Perpar, Robert Vertnik, Gašper Vuga
19. 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 Duvaut, Olivier Tantot, Nicolas Delhote, Michaël Charles, Jaona Harifidy Randrianalisoa
20. NUMERICAL CONTACT LINE BEHAVIOR PREDICTION FOR DROP-WALL IMPACT USING BASILISK, Maxim Piskunov, Ivan Vozhakov, Sergey Misyura
21. 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
22. PERIODIC LASER HEATING TECHNIQUE FOR THIN FILM CHARACTERIZATION, Erika Hahn, Sebastian Feulner, Vincent Linseis
23. NUMERICAL SIMULATION OF DROP IMPINGEMENT ONTO SUPERHEATED TEXTURED WALLS, Henrik Sontheimer, Anh Tu Ho, Leon Elsässer, Peter Stephan, Tatiana Gambaryan Roisman
24. 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
25. INTEGRATED COMPUTATIONAL MATERIALS ENGINEERING SIMULATIONS OF DIRECT-CHILL CASTING, Božidar Šarler, Tadej Dobravec, Boštjan Mavrič, Katarina Mramor, Robert Vertnik, Gašper Vuga, Peter Cvahte, Marina Jelen, Marko Petrovič, Aleksandra Robič
26. A 3D SYMMETRY-PRESERVING SIMULATION OF A CONCENTRATED PHOTOVOLTAIC THERMAL (CPVT) SOLAR COLLECTOR, Daniel Santos Serrano, Joaquim Rigola, Jesus Castro, Francesc Xavier Trias Miquel
27. 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
28. MULTI-OBJECTIVE OPTIMIZATION IN HEAT EXCHANGER DESIGN AND OPERATION, Reijo Karvinen
29. 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
30. TOPOLOGY OPTIMIZATION OF HEAT EXCHANGERS, Ahmad Fawaz, Yuchao Hua, Steven Le Corre, Yilin Fan, Lingai Luo
31. 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
32. NUMERICAL INVESTIGATION ON LIQUID COOLING OF BATTERIES IN PHASE CHANGE MATERIALS, Aanandsundar Arumugam, Bernardo Buonomo, Pasquale Romano, Oronzio Manca

33. EXPERIMENTAL AND NUMERICAL PRESSURE DROP INVESTIGATION OF A PROTRUDING TUBE MICROCHANNEL HEAT EXCHANGER, Carles Oliet, Mohamed Settati, A. Oliva
34. NUMERICAL MODELLING OF CONTINUOUS CASTING OF ROUND BILLETS WITH TURBULENCE IN THE MELT, Katarina Mramor, Zlatko Rek, Robert Vertnik, Božidar Šarler
35. LOW ENTHALPY GEOTHERMAL SOURCE FOR SUSTAINABLE ENERGY PRODUCTION IN SMALL ISLANDS: A REAL CASE STUDY, Simona Di Fraia, Nicola Massarotti, Laura Vanoli
36. NUMERICAL SIMULATIONS OF TEMPERATURE LOADS OF MULTILAYER LAUE LENSES, Zlatko Rek, Henry N. Chapman, Saša Bajt, B Šarler
37. EXPERIMENTAL STUDY OF THE MULTIPLE IMPELLER CHARACTERISTICS IN THE FERMENTER TANK, Andrej Bombač
38. 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
39. EXPERIMENTAL ANALYSIS OF FLOW-FOCUSED MICRO-JETS, Jernej Kušar, Krištof Kovačič, Bor Zupan, Gal Savšek, Božidar Šarler
40. 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
41. 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
42. EFFECT OF ACOUSTICS ON DROPLET GROUPING BEHAVIOUR IN A SINGLE STREAM OF DROPLETS, Manish Kumar, Visakh Vaikuntanathan, Bernhard Weigand