

# SCHEDULE ECMS 2022

Author names written in **orange**: video/online presentation

Time (CET)	TUESDAY May 31st - All Schedule in CET	
15:00-17:00	Registration and Reception	
Time (CET)	DAY 1 WEDNESDAY (June 1st) - All Schedule in CET	
08:00-14:00	Registration Office Open	
08:30-09:00	Welcome & Opening Session	
09:00-10:00	<b>Keynote 1: On the role of Modeling and Simulation for Artificial Intelligence, Prof. Hussein Abbass</b>	
10:00-10:30	Coffee Break	
	Session 1.1: SIMO 1	Session 2: BPMI
	<i>Session chair: Frank Schaeffer and Frank Morelli</i>	<i>Session chair: Romeo Bandinelli</i>
10:30-10:55	<b>A Simple Algorithm Selector For Continuous Optimisation Problems</b> <i>Tarek A. El-Mihoub, Christoph Tholen, Lars Nolle</i>	<b>Optimization Of Internal Logistics Using A Combined BPMN And Simulation Approach</b> <i>Maximilian Wuennenberg, Benjamin Wegerich, Johannes Fottner</i>
10:55-11:20	<b>Optimised Bumblebee Paths As Search Strategy For Autonomous Underwater Vehicle</b> <i>Christoph Tholen, Lars Nolle, Tarek A. El-Mihoub, Oliver Zielinski</i>	<b>Simulating The Automation Of Sorting Crates – A Stepwise Approach</b> <i>Armand Misund, Henrique M. Gaspar</i>
11:20-11:45	<b>Emission Reduction Through Production Scheduling By Priority Rules And Energy Onsite Generation</b> <i>Hajo Terbrack, Thorsten Claus, Frank Herrmann</i>	<b>A Data-Driven Approach For Process Simulation Optimization: A Case Study</b> <i>Romeo Bandinelli, Andrea Nunziatini, Virginia Fani, Bianca Bindi</i>
11:45-12:10	<b>Supply Chain Resilience Management Using Process Mining</b> <i>Frank Schaeffer, Frank Morelli, Florian Haas</i>	<b>Towards A Meta-Modeling Approach For An IoRT-Aware Business Process</b> <i>Najla Fattouch, Imen Ben Lahmar, Khouloud Boukad</i>
12:10-13:10	Lunch break	
	Session 1.2: SIMO 2	Session 3: CPS / FES 1 paper
	<i>Session chair: Carlo Simon</i>	<i>Session chair: Ümit Cali / FES track paper Kata Varadi</i>
13:10-13:35	<b>Stratification Of Timed Petri Nets At The Example Of A Production Process</b> <i>Carlo Simon, Stefan Haag, Lara Zakfeld</i>	<b>Modelling AGV Operation Simulation With Lithium Batteries In Manufacturing</b> <i>Ozan Yesilyurt, Marius Kurrle, Andreas Schlereth, Miriam Jaeger, Alexander Sauer</i>
13:35-14:00	<b>Microbial Growth Of Lactobacillus Delbrueckii Ssp. Bulgaricus B1 In A Complex Nutrient Medium (MRS-Broth)</b> <i>Georgi Kostov, Rositsa Denkova-Kostova, Vesela Shopaska, Bogdan Goranov, Zapryana L</i>	<b>On The Use Of Graphical Digital Twins For Urban Planning Of Mobility Projects: A Case Study From A New District In Ålesund, Norway</b> <i>Pierre Major, Andreas Amundsen, Ricardo Da Silva Torres, Pernille Stadsnes, Egil Mikalsen</i>
14:00-14:25	<b>A Model For Predicting The Amount Of Photosynthetically Available Radiation From BGC-ARGO Float Observations In The Water Column</b> <i>Frederic Stahl, Lars Nolle, Ahlem Jemai, Oliver Zielinski</i>	<b>Digital Twins For Lighting Analysis: Literature Review, Challenges, And Research Opportunities</b> <i>Muhammad Umair Hassan, et al.</i>
14:25-14:50	<b>Taking Randomness For Granted: The Complexities Of Applying Random Number Str In Simulation Modelling</b> <i>Maximilian Selmair</i>	<b>Forecasting Models For First Year Premium Of Life Insurance - FES Track paper talk</b> <i>Somsri Banditvilai</i>
14:50-15:15	<b>Calibration Model For Perceptual Compensation Of Defective Pixels Of Self-Emitting Display</b> <i>Olga A. Basova, Anton Grigoryev, Dmitry P. Nikolaev</i>	
15:15-15:30	Coffee Break	
15:30-20:00	optional: walk to Sunnmøre Museum with boat excursion or guided museums tour (food and drinks provided)	
14:00-15:30	<b>ECMS Board Meeting</b>	

## Time (CET)

## DAY 2 THURSDAY (June 2nd) - All Schedule in CET

08:00-14:00 Registration Office Open

09:00-10:00 **Keynote 2: Building An Open-Source Community For Subsurface Flow Simulation, Prof. Knut-Andreas Lie**

10:00-10:30 **Coffee Break**

Session 1.3: SIMO 3

Session 4: PSTAT

Session chair: *Hajo Terbrack*Session chair: *Mauro Iacono*

10:30-10:55 **Improve The Output Quality Of Adaptive Process Chains With AI And Optimization**  
*Thomas Husslein, Christian Otto*

**Effect Of Impurities On Stability Of The Skyrmion Phase  
In A Frustrated Heisenberg Antiferromagnet**  
*Mariia Mohylina, Milan Zukovic*

10:55-11:20 **Synergy Between Shuttles And Stacker Cranes In Dynamic Hybrid Pallet Warehouses: Control Strategies And Performance Evaluation**  
*Giulia Siciliano, Yue Yu, Johannes Fottner*

**Massive Degeneracy And Anomalous Thermodynamics I  
In A Highly Frustrated Ising Mode On Honeycomb Lattice**  
*Milan Zukovic*

11:20-11:45 **How To Run A World Record? A Reinforcement Learning Approach**  
*Sajad Shamsavari, Eero Immonen, Masoomeh Karami,  
Hashem Haghbayan, Juha Plosila*

**Some Ergodicity And Truncation Bounds  
For A Small Scale Markovian Supercomputer Model**  
*Rostislav Razumchik, Alexander Rumyantsev*

11:45-12:10 **Elongated Boundaries Detector Parameters Optimisation  
Based On Generation Of Synthetic Data From Aerial Imagery**  
*Ekaterina Panfilova, Anton Grigoryev, Vladimir Burmistrov*

12:10-13:10

**Lunch break**

Session 5.1: DIS 1

Session 6.1: FES 1

Session chair: *Mauro Iacono*Session chair: *Kata Varadi*

one talk already given Wednesday 14:25 - 14:50

13:10-13:35 **Causal Analysis Graph Modeling For Strategic Decisions**  
*Alexander H. Levis, Amy Sliva*

**Reflections On Assumptions For A Simulation Model Of Dental Caries  
Prevention Planning In A Primary School**  
*Maria Hajlasz, Bozena Mielczarek*

13:35-14:00 **Epistemic Games With Conditional Beliefs For Modelling Security d  
Threats Defence In Clou Computing Svstems**  
*Lukasz Gaza, Agnieszka Jakobik*

**Comparison Of Separated Families' Standard Of Living In Germany:  
Analyzing The Equalised Incomes In Simulated Families After Child Support And Child Benefit Paid**  
*Erzsebet Terez Varga*

14:00-14:25 **Simulating The Programmable Networks For HLA Compatible High-Performance Simu**  
*Kayhan M. Imre*

**European Quality Of Life In Retirement - Analyzing Personal Differences  
Based On SHARE Data**  
*Sara Szanyi-Nagy, Erzsebet Kovacs, Agnes Vaskoevi*

14:25-14:50 **Agent And Evolutionary-Based Modelling And Simulation  
Of A Simplified Living System**  
*Adrian Sosnicki, Daniel Grzonka, Lukasz Gaza*

**Rising Regional Importance Of  
The Renminbi In The Asia-Pacific Area: A Panel Analysis**  
*Eszter Boros, Gabor Sztano*

14:50-15:10

**Coffee Break**

Session 7: FDEM

Session 6.2: FES2

Session chair: *Peter T. Zwierczyk*

Session chair: *Kata Varadi*

15:10-15:35 **FEM Study On The Strength Increasing Effect Of Nitrided Spur Gears**

*Jakab Molnar, Peter T. Zwierczyk, Attila Csoban*

**Implied Volatility Based Margin Calculation On Cryptocurrency Markets**

*Balazs Kralik, Nora Felfoeldi-Szuecs, Kata Varadi*

15:35-16:00 **Development Of A 2D Discrete Element Software With LabVIEW t**

**For Contact Model Improvemen And Educational Purposes**

*Laszlo Pasty, Jozsef Graeff, Kornel Tamas*

**Regional Models Of Corporate Sector Development In Russia:**

**Where Does Family-Friendly Policy Matter Most? (A Study Based On Cluster Analysis)**

*Anna Bagirova, Oksana Shubat*

16:00-16:25 **Application Of The Extended Finite Element Method In The Aim Of Examination Of Cr**

**Propagation In Railway Rails**

*Daniel Bobis, Peter T. Zwierczyk, Tamas Mate*

**Identifying Regional Models Of Active Grandparenting In Russia**

**Based On Cluster Analysis**

*Oksana Shubat, Irina Shmarova*

16:25-16:50 **Application Of The Finite Element Method To Determine The Velocity Profile In An Open Channel**

*Daria Wotzka*

Coffee Break

16:50-17:00

Mobilization to dinner place

17:00-18:30

**Conference Dinner**

18:30-21:00

**Time (CET)**

**DAY 3 FRIDAY (June 3rd) - All Schedule in CET**

09:00-10:00

**Keynote 3: Modeling for using Deep learning, Prof. Manish Gupta**

10:00-10:30

Coffee Break

Session 5.2: DIS 2

Session 8: SST

Session chair: *Mauro Iacono*

Session chair: *Di Wu*

10:30-10:55 **Formal Verification Of Neural Networks:**

**A Case Study About Adaptive Cruise Control**

*Stefano Demarchi, Dario Guidotti, Andrea Pitto, Armando Tacchella*

**GENOR: A Generic Platform For Indicator Assessment In City Planning**

*Leo Leplat, Ricardo da Silva Torres, Dina Aspen, Andreas Amundsen*

10:55-11:20 **Predicting Performance Of Heterogeneous AI Systems With Discrete-Event Simulation**

*Vyacheslav Zhdanovskiy, Lev Teplyakov, Anton Grigoryev*

**Heuristic Techniques For Reducing Energy Consumption Of Household**

*Sarah M. Daragmeh, Anniken Th. Karlsen, Ibrahim A. Hameed*

11:20-11:45 **Time Series Clustering With Different Distance Measures**

**To Tell Web Bots And Humans Apart**

*Grazyna Suchacka*

**Learned Parameterized Convolutional Approximation Of Image Filters**

*Olga Chaganova, Anton Grigoryev*

11:45-12:10 **A DSL-Based Modeling Approach For Energy Harvesting IoT / WSN**

*Lelio Campanile, Mauro Iacono, Fiammetta Marulli, Marco Gribaudo, Michele Mastroianni*

12:15-12:30

Closing session

12:30

Lunch break