Day 1

Wednesday
1 July 2026

8:00-9:00	**Registration**	
9:00-9:10	**Opening Ceremony (Event Chairs: Prof. Dr. Miguel Rubi and Prof. Dr. Kevin H. Knuth)**	
9:10-9:15	**Session 3. Quantum Information and Quantum Computing (Chaired by Prof. Dr. Jean-Marc Simon and Prof. Dr. Eli Barkai)**	
9:15-9:45	**Prof. Dr. Ariel Caticha** Keynote Speaker	*Towards an Entropic Quantum Gravity*
9:45-10:15	**Prof. Dr. Eli Barkai** Keynote Speaker	*First-Passage and Hitting Times in Monitored Quantum Systems on NISQ Platforms*
10:15-10:30	**Thomas Scheidsteger** Oral Presenter	*The Quantum Turn of Entropy: A Bibliometric Journey Through Quantum Information and Quantum Computation*
10:30-10:45	**Newshaw Bahreyni** Oral Presenter	*A Study of Fluctuation Growths of Observables in Open Quantum Systems*
10:45-11:20	**Coffee Break** **Poster Session A (35 min)**	
11:20-11:50	**Prof. Dr. Stefano Mancini** Keynote Speaker	*The Capacity of a Single Quantum Neuron*
11:50-12:05	**Luca Nigro** Oral Presenter	*Quantum Reservoir Computing via Intrinsic and Engineerednon-Unital Dynamics*
12:05-12:20	**Seyedali Mousavi** Oral Presenter	*Multi-Objective Quantum Architecture Search under Noise via Expressibility-Guided Evolution*
12:20-14:00	**Lunch Break**	

14:00-14:05	**Session 4. Thermodynamics and Energy Systems (Chaired by Prof. Dr. Karl Heinz Hoffmann)**	
14:05-14:35	**Prof. Dr. Karl Heinz Hoffmann** Keynote Speaker	*Finite-Time Thermodynamics of Endoreversible Systems*
14:35-15:05	**Dr. Péter Ván** Keynote Speaker	*Fundamental and Emergent: Testing the Second Law of Thermodynamics*
15:05-15:20	**Adam Gadomski** Oral Presenter	*Superlubric Effect of Vanishing Classical-Quantum-Measured Coefficient of Friction with Inclusion of Van der Waals Monolayer Contaminants Deposited on Graphene-Type Substrates*
15:20-15:35	**Angel Cuadras** Oral Presenter	*A Stochastic Entropy-Based Approach to Electrochemical Battery Modeling*
15:35-15:50	**Özge Özkılınc** Oral Presenter	*Data-Driven Screening of Choline Chloride–Monoterpenoid and –Fatty Acid Deep Eutectic Solvents for PFAS Extraction*
15:50-16:25	**Coffee Break** **Poster Session A (35 min)**	
16:25-16:30	**Session 8. Applications of Entropy in Science and Engineering (Chaired by Dr. Juan F. Pedraza)**	
16:30-17:00	**Dr. Juan F. Pedraza** Keynote Speaker	*Krylov Complexity as a Probe of Quantum Chaos in Many-Body Systems*
17:00-17:30	**Prof. Dr. Syed Ejaz Ahmed** Keynote Speaker	*Reliable Post-Estimation Inference in High-Dimensional Sparse Regression*
17:30-17:45	**Amilcare Porporato** Oral Presenter	*Environmental Thermodynamics: Bridging Science and Technology in a Changing Environment*
17:45-18:00	**Vítor Costa** Oral Presenter	*Looking at Economics Through the Eyes of Thermodynamics: Economic Entropy, and Economic Entropy Generation*
18:00-18:15	**Serge Provost** Oral Presenter	*Quantifying the Representational Power of Consecutive Moments: A Relative Entropy Perspective*
18:15-18:30	**Ignácio Iturrioz** Oral Presenter	*Linking Entropy Measures in Quasi-Brittle Material Specimens and Statistical Models to Global Acoustic Emission*
18:30-18:45	**Kazuko Sugimoto** Oral Presenter	*Internal Defect Detection Using Spatial Spectral Entropy in Noncontact Acoustic Inspection and COMSOL Analysis of Flexural Vibration*
20:00-21:00	**Dinner Banquet**	

Day 2

Thursday
2 July 2026

8:30-9:00	**Registration**	
9:00-9:05	**Session 1. Complex Systems and Network Science (Chaired by Prof. Dr. Marta Sales Pardo and Prof. Dr. M. Ángeles Serrano)**	
9:05-9:35	**Prof. Dr. M. Ángeles Serrano** Keynote Speaker	*Statistical Mechanics of Random Graphs within the Fermionic Maximum-Entropy Framework*
9:35-10:05	**Prof. Dr. José Fernando F. Mendes** Keynote Speaker	*When Does Diversity Matter in Binary-Choice Dynamics?*
10:05-10:20	**Luciano Telesca** Oral Presenter	*Quantifying complexity in synthetic earthquakes generated by the Olami–Feder–Christensen spring-block model*
10:20-10:35	**Antoni Hernández-Fernández** Oral Presenter	*Do Linguistic Laws Emerge from Physics? Statistical Regularities in Photonic Neurons*
10:35-11:10	**Coffee Break** **Poster Session B (35 min)**	
11:10-11:40	**Prof. Dr. Marta Sales Pardo** Keynote Speaker	*The Physics of Network Alignment*
11:40-11:55	**Johan L.A. Dubbeldam** Oral Presenter	*Understanding extinction events in minimal nonlinear random models for population using the theory of statistical learning*
11:55-12:10	**Jan Korbel** Oral Presenter	*Homophily-Based Social Group Formation in a Spin Glass Self-Assembly Framework*
12:10-12:25	**Ioannis Antoniadis** Oral Presenter	*Network Generation by Vertex-based Wiring and Restricted Resources*
12:25-14:00	**Lunch Break**	

14:00-14:05	**Session 7. Soft and Living Matter (Chaired by Prof. Dr. David Reguera)**	
14:05-14:35	**Prof. Dr. Jose M.G. Vilar** Keynote Speaker	*Entropy as an Active Remodeling Principle in Biomolecular Nanostructure Disassembly*
14:35-15:05	**Prof. Dr. David Reguera** Keynote Speaker	*Shaping Viruses with Entropy: Assembly Kinetics of Viral Capsid Formation*
15:05-15:20	**Francisco J. Cao-García** Oral Presenter	*Ligand Binding in Crowded Polymers*
15:20-15:35	**Miriam Martinez** Oral Presenter	*Quantifying Insect Dynamics in Euclidean and Non-Euclidean Spaces*
15:35-16:10	**Coffee Break** **Poster Session B (35 min)**	
16:10-16:15	**Session 5. Non-Equilibrium Systems and Entropy Production (Chaired by Prof. Dr. José Fernando F. Mendes)**	
16:15-16:45	**Prof. Dr. Bernardo Spagnolo** Keynote Speaker	*Noise-Assisted Metastability and Noise-Enhanced Perception*
16:45-17:00	**Veaceslav Albu** Oral Presenter	*Entropy's Other Half: How Information Melts Potential into Memory*
17:00-17:15	**Rudolf Hanel** Oral Presenter	*Irreversibility in the Ideal Gas Model and a Thermodynamic Time-Energy Uncertainty Principle*
17:15-17:30	**Oded Farago** Oral Presenter	*Entropy Production in Run-and-Tumble Particles Mapped to Brownian Motion in an Inhomogeneous Temperature*
17:30-17:45	**David Papo** Oral Presenter	*Time-Reversal Symmetry in Brain Pathology*
17:45-18:00	**Jean-Marc Simon** Oral Presenter	*Adsorption Kinetics Model of Hydrogen on Graphite*
18:00-18:15	**Matteo Colangeli** Oral Presenter	*Stochastic Chains Coupled to Thermal Reservoirs*

Day 3

Friday
3 July 2026

8:30-9:00	**Registration**	
9:00-9:05	**Session 6. Statistical Physics and Stochastic Processes (Chaired by Prof. Dr. Ralf Metzler and Prof. Dr. Hong Qian)**	
9:05-9:35	**Prof. Dr. Hong Qian** Keynote Speaker	*Neo-Gibbsian Statistical Energetics with Applications to Nonequilibrium Cells*
9:35-9:50	**Aleksei Chechkin** Oral Presenter	*Genuine and Spurious (Non-)Ergodicity in Single Particle Tracking*
9:50-10:05	**Ronen Zangi** Oral Presenter	*Chemistry with Small Number of Molecules*
10:05-10:20	**Jean-Luc Garden** Oral Presenter	*Entropy Fluctuations in Stochastic Thermodynamics*
10:20-10:35	**Guillermo Chacón-Acosta** Oral Presenter	*Curvature-Induced Effects in Time-Subordinated Diffusion*
10:35-11:00	**Coffee Break (25 min)**	
11:00-11:30	**Prof. Dr. Ralf Metzler** Keynote Speaker	*Anomalous Diffusion, Non-Gaussianity and Long-Range Dependent Motion*
11:30-11:45	**Jose Luis Calabrese** Oral Presenter	*Why Do Spiral Galaxies Rotate So Fast? Same Gravity Theory, Different Dynamical-Regime Model*
11:45-12:00	**Lamberto Rondoni** Oral Presenter	*Power-Law Tails and Universality for Strong Anomalous Diffusion*
12:00-12:15	**Ofir E. Alon** Oral Presenter	*Solvable Model of Induced Interactions in Bose-Einstein Condensates*
12:15-13:30	**Lunch Break**	

13:30-13:35	**Session 2. Information Theory, Data Science and Artificial Intelligence (Chaired by Prof. Dr. Olivier Rioul and Prof. Dr. Kevin H. Knuth)**	
13:35-14:05	**Prof. Dr. Kevin H. Knuth** Keynote Speaker	*The Statistical Mechanics of Motion*
14:05-14:20	**Andres Aragoneses** Oral Presenter	*The Linguistic Organization of Complex Systems*
14:20-14:35	**Hiroshi Matsuzoe** Oral Presenter	*Invariant and Dually Flat Structures in Information Geometry for Deformed Exponential Families*
14:35-14:50	**Federico Fogolari** Oral Presenter	*K-th Nearest Neighbour Entropy for Classification*
14:50-15:05	**Veronica Sanz-Arqué** Oral Presenter	*Stochastic Resetting with Limited Information*
15:05-15:30	**Coffee Break (25 min)**	
15:30-16:00	**Prof. Dr. Olivier Rioul** Keynote Speaker	*Dual Representations of Classical and Quantum Entropies: Theory and Perspectives*
16:00-16:15	**Valeria Rossi** Oral Presenter	*Mutual Information Based on Kolmogorov Complexity for Randomness Evaluation*
16:15-16:30	**Francisco J. Valverde-Albacete** Oral Presenter	*On Information Transmission in Multilabel Classifications Tasks*
16:30-16:45	**Martin Schlather** Oral Presenter	*70 Years of Bandwagon: Shannon's Viewpoint Revisited*
16:45-16:55	**Interview** Speakers	
16:55-17:10	**Award Ceremony** **Chairs' Closing Remarks**	

Poster Session A

1.	**Mile Dželalija**	*Entropy-Based Correlation Operator in the Hilbert Space Representation of Biomedical Complex Systems*
2.	**Michel Aguilera**	*Thermodynamic Behavior of the Dipolar Q-State Clock Model on Large Lattices: A Monte Carlo Study*
3.	**Juan C. Pacheco-Páez**	*Efficient Power in an Arrangement Series of Endoreversible Thermal Engines*
4.	**Juan C. Pacheco-Páez**	*Entropy Generation Trade-Offs in Finite-Time Irreversible Otto–Atkinson/Miller Engines under Efficient Power, Ecological, and Hybrid Ecological Regimes*
5.	**Fernando Moreno**	*From Data-Driven to Physics-Informed AI: Explainable Energy Optimization in Industrial Systems*
6.	**Takuya Yamano**	*Thermodynamic Meaning of Statistical Factor in Systems with Temperature-Dependent Energy Levels*
7.	**Miloslav Pekař**	*Gibbs Energy, Chemical Reactions–(In)Consistencies*
8.	**Dani Rodríguez Castellanos**	*Thermodynamic Framework for q-Affinity*
9.	**Angel Cuadras**	*A Holistic Approach to Residential Metabolism: The Entropic Cost of Demographic Fragmentation*
10.	**Angel Cuadras**	*Entropy Description of Projectile Motion in Dissipative Media*
11.	**Rytis Petrauskas**	*Transposing Econophysical Entropic Criteria to Scientific Time Series: A Framework for Volatility-Scaled Data Curation*
12.	**José Juan Peña**	*The Decay Equation: A Generalization from Nonextensive Statistics and k-Statistics Based on the q-Calculus*
13.	**Milan Rybář**	*Entropy Dynamics Differentiate Deliberate and Arbitrary Decisions in EEG*
14.	**Ghaya Mehdi**	*Dispersion Phase Entropy: An Enhanced Complexity Measure Incorporating Phase Dynamics in Nonlinear Time Series*
15.	**Ghaya Mehdi**	*Multi-Scale Circulant Determinant-based Permutation Entropy for HDsEMG Signal Processing*
16.	**Sayuri Ishiyama**	*Emergence of Life and Relational Entropy: Nonlinear Dynamics of the Fetus–Maternal System*
17.	**Marta Lotka**	*Multiscale Structural Organization of the Brain Breaks Down in Aging and Dementia: Insights from Multifractal Space-Filling Curve Analysis (MFSCA)*
18.	**João de Sant'Ana**	*Prejudice and Discrimination in a Society of Neural Networks*
19.	**Rustu Demirer**	*Spectral Criticality at the Interface of Analytic Number Theory and Neural Field Theory: Entropy Production, Zero Repulsion and Cortical Symmetry Breaking*
20.	**Gordon Morison**	*Generalized Permutation Entropy Measures on Graph Signals*
21.	**Santiago Pelosso Rodríguez**	*Modeling Chaotropic and Kosmotropic Ion Effects on Entropy and Diffusion of Water*
22.	**Javier Orradre Altabas**	*A Many-State Conformational-Binding Model to Describe Polymer Force-Extension Curves*
23.	**Dimiter Prodanov**	*Information Geometry–Mellin Representation Correspondence in Linear Viscoelasticity*
24.	**Anna Monclús I Rojo**	*Correlations in Active Nematic Defects*

Poster Session B

1.	**Vicent Moltó-Gallego**	*Rolling Bearing Fault Classification Approach Combining Slope Entropy and Downsampling Schemes*
2.	**Klaus Morawetz**	*Correlational Entropy by Nonlocal Quantum Kinetic Theory*
3.	**Huilong Ren**	*Path-Dependent Energy Lagrangian for Irreversible Thermomechanical Systems*
4.	**Andrés Vallejo**	*Alternative Analisys of Single-Qubit Quantum Heat Engines*
5.	**Amna Khraibut**	*A Stochastic Analysis of a Hypersonic Planar Flow Using a Fokker–Planck Approximation*
6.	**Eugenio Vogel**	*Mutability as a Dynamic Function Bound by Entropic Functionals*
7.	**Pasquale Vozza**	*Bridging Exact Response Theory with the Karhunen-Loève expansion*
8.	**Carlos Escudero**	*Structural Conditions for a Driftless Langevin Representation of Heterogeneous Fickian Diffusion*
9.	**Mateusz Wiśniewski**	*Fast Directed Transport via Energy Recuperation in Non-Markovian Media*
10.	**Karol Białas**	*Absolute Negative Mobility in the Overdamped System Driven by Active Fluctuations*
11.	**Giuliana Paradiso**	*Statistical Scaling Analysis of Seismic Acceleration Signals*
12.	**Antonio Pons**	*Exploring Complex Systems as Language Generators*
13.	**Federico Vello**	*Benchmarking the kth-Nearest Neighbur Method for Classification*
14.	**Pieter van Rooyen**	*Entropy, Annealing, and the Continuity of Agency in Human–AI Systems*
15.	**Thiago Mascarenhas**	*EID—Exponential Informational Decay: A Dynamic Model for Measuring Information Preservation in Multi-Agent Systems Based on LLMs*
16.	**Jiping Yang**	*A Fund Rating Approach Based on the Expected Utility-Entropy-Variance Model and Its Application*
17.	**Shanzi Bao**	*Entropy Dynamics as a Diagnostic of Information Accumulation in Graph Neural Networks*
18.	**Raphaël Trésor**	*Shifting the Foundations of Information Theory: From Numerical Optimization to Ordering Axioms*
19.	**Newshaw Bahreyni**	*Euclidean Geometry in Influence Network of Events: An Observer-Based Geometry*
20.	**Dana Polatin**	*'I Am Not My Language': Human Cognition, Misattributed Intelligence, and the Extractive Risk of Large Language Models*
21.	**Sergio Alejandro Jalfin**	*Information-Theoretic Analysis of the ENSO–Precipitation Relationship in Buenos Aires*
22.	**Yuri L. Borissov**	*Information-Theoretic Limits for a Single-Layer Additive Cipher with Linear-Code Plaintext Source*
23.	**Xin-Ya Zhang**	*Temperature-Driven Escape Explains Critical Learning Rates in Adaptive Optimization*
24.	**Giorgos Minas**	*A Study of the Use of Decoding Based Methods for Estimating Mutual Information in Biomolecular Systems*