

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

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	<i>Entropy as an Active Remodeling Principle in Biomolecular Nanostructure Disassembly</i>
14:35-15:05	Prof. Dr. David Reguera Keynote Speaker	<i>Shaping Viruses with Entropy: Assembly Kinetics of Viral Capsid Formation</i>
15:05-15:20	Anna Monclús I Rojo Oral Presenter	<i>Correlations in Active Nematic Defects</i>
15:20-15:35	Miriam Martinez Oral Presenter	<i>Quantifying Insect Dynamics in Euclidean and Non-Euclidean Spaces</i>
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	<i>Noise-Assisted Metastability and Noise-Enhanced Perception</i>
16:45-17:00	Veaceslav Albu Oral Presenter	<i>Entropy's Other Half: How Information Melts Potential into Memory</i>
17:00-17:15	Rudolf Hanel Oral Presenter	<i>Irreversibility in the Ideal Gas Model and a Thermodynamic Time-Energy Uncertainty Principle</i>
17:15-17:30	Oded Farago Oral Presenter	<i>Entropy Production in Run-and-Tumble Particles Mapped to Brownian Motion in an Inhomogeneous Temperature</i>
17:30-17:45	David Papo Oral Presenter	<i>Time-Reversal Symmetry in Brain Pathology</i>
17:45-18:00	Jean-Marc Simon Oral Presenter	<i>Adsorption Kinetics Model of Hydrogen on Graphite</i>
18:00-18:15	Francisco J. Cao-García Oral Presenter	<i>Ligand Binding in Crowded Polymers</i>
18:15-18:30	Matteo Colangeli Oral Presenter	<i>Stochastic Chains Coupled to Thermal Reservoirs</i>

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	<i>Neo-Gibbsian Statistical Energetics with Applications to Nonequilibrium Cells</i>
9:35-9:50	Aleksei Chechkin Oral Presenter	<i>Genuine and Spurious (Non-)Ergodicity in Single Particle Tracking</i>
9:50-10:05	Ronen Zangi Oral Presenter	<i>Chemistry with Small Number of Molecules</i>
10:05-10:20	Jean-Luc Garden Oral Presenter	<i>Entropy Fluctuations in Stochastic Thermodynamics</i>
10:20-10:35	Guillermo Chacón-Acosta Oral Presenter	<i>Curvature-Induced Effects in Time-Subordinated Diffusion</i>
10:35-11:00	Coffee Break (25 min)	
11:00-11:30	Prof. Dr. Ralf Metzler Keynote Speaker	<i>Anomalous Diffusion, Non-Gaussianity and Long-Range Dependent Motion</i>
11:30-11:45	Jose Luis Calabrese Oral Presenter	<i>Why Do Spiral Galaxies Rotate So Fast? Same Gravity Theory, Different Dynamical-Regime Model</i>
11:45-12:00	Ofir E. Alon Oral Presenter	<i>Solvable Model of Induced Interactions in Bose-Einstein Condensates</i>
12:00-13:30	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	<i>The Statistical Mechanics of Motion</i>
14:05-14:20	Andres Aragoneses Oral Presenter	<i>The Linguistic Organization of Complex Systems</i>
14:20-14:35	Hiroshi Matsuzoe Oral Presenter	<i>Invariant and Dually Flat Structures in Information Geometry for Deformed Exponential Families</i>
14:35-14:50	Federico Fogolari Oral Presenter	<i>K-th Nearest Neighbour Entropy for Classification</i>
14:50-15:05	Veronica Sanz-Arqué Oral Presenter	<i>Stochastic Resetting with Limited Information</i>
15:05-15:30	Coffee Break (25 min)	
15:30-16:00	Prof. Dr. Olivier Rioul Keynote Speaker	<i>Dual Representations of Classical and Quantum Entropies: Theory and Perspectives</i>
16:00-16:15	Valeria Rossi Oral Presenter	<i>Mutual Information Based on Kolmogorov Complexity for Randomness Evaluation</i>
16:15-16:30	Francisco J. Valverde-Albacete Oral Presenter	<i>On Information Transmission in Multilabel Classifications Tasks</i>
16:30-16:45	Martin Schlather Oral Presenter	<i>70 Years of Bandwagon: Shannon's Viewpoint Revisited</i>
16:45-16:55	Interview Speakers	
16:55-17:10	Award Ceremony Chairs' Closing Remarks	

Poster Session A

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

Poster Session B

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