

## 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

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

**Petr Jizba**

Oral Presenter

*Information Scan of Quantum States Based on Entropy-Power Uncertainty Relations*

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

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 Özkılınç**  
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 Introduction 5 min

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

9:05-9:35

**Prof. Dr. M. Ángeles Serrano**  
Keynote Speaker

TBA

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

TBA

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

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

**Santiago Pelosso Rodríguez**  
Oral Presenter

*Modeling Chaotropic and Kosmotropic Ion Effects on Entropy and Diffusion of Water*

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

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

**Francisco J. Cao-García**  
Oral Presenter

*Ligand Binding in Crowded Polymers*

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

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

**Nir Schreiber**  
Oral Presenter

*Ensemble Dependence of the Critical Behavior of a System with Long Range Interaction and Quenched Randomness*

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

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

*(for the Chairs to decide the final winners)*

16:55-17:10

Award Ceremony  
Chairs' Closing Remarks