

Sunday, July 5, 2026

AVRA IMPERIAL HOTEL

16.00 - 19.00

Registration desk

Sunday 5

Monday, July 6, 2026

AVRA IMPERIAL HOTEL

08.00 - 11.00

Registration desk

Monday 6

MAIN HALL MAISTRO

MAIN CONFERENCE

Monday 6

| | | | |
|---------------|-------------------|---|-------|
| 11.00 - 11.10 | Kaniadakis G. | <i>Welcome Addresses & Opening Ceremony</i> | Chair |
| 11.10 - 11.20 | | | |
| 11.20 - 11.30 | | | |
| 11.30 - 12.00 | Kaniadakis G. | <i>Sigmaphi Prizes Cerimony</i> | |
| 12.00 - 12.30 | Group Photo | | |
| 12.30 - 14.00 | Welcome Reception | | |

MAIN HALL MAISTRO

Keynote

MAIN CONFERENCE

Monday 6

| | | | |
|---------------|---------------|--|-------|
| 14.00 - 14.30 | Fleishman G. | <i>Solar flare science with microwave imaging spectroscopy beyond the standard ...</i> | Chair |
| 14.30 - 15.00 | Hatzikirou H. | <i>On a theory of cell decision-making in multicellular systems</i> | |
| 15.00 - 15.30 | Saad D. | <i>Inferring messages in non-linear optical fibres with memory</i> | |
| 15.30 - 16.00 | di Matteo T. | <i>Two different flavours of complexity in economic and financial data: An...</i> | |
| 16.00 - 16.30 | Cuerno R. | <i>Critical dynamics far from equilibrium: upturns from surface kinetic roughening</i> | |
| 16.30 - 17.00 | Geisel T. | <i>Stochastic properties of musical time series</i> | |
| 17.00 - 17.30 | Coffee break | | |

Area C

MAIN CONFERENCE

Monday 6

| | | | |
|---------------|----------------|--|-------|
| 17.30 - 17.50 | Alberti T. | <i>Event-based attribution of Mediterranean extreme cyclones in a changing climate</i> | Chair |
| 17.50 - 18.10 | Bae Y. | <i>A stochastic dynamics framework for social evolution from observed data</i> | |
| 18.10 - 18.30 | Colombini G. | <i>Firing rate estimates for a noisy FitzHugh-Nagumo neuron</i> | |
| 18.30 - 18.50 | Czechowski Z. | <i>From data to stochastic dynamics: nonlinear Langevin modeling of asymmetric...</i> | |
| 18.50 - 19.10 | Fenoaltea E.M. | <i>A grand-canonical solution to a class of random optimization problems</i> | |
| 19.10 - 19.30 | Fronczak P. | <i>Fractal complex networks: From local to global scaling relations</i> | |
| 19.30 - 19.50 | Katayama K. | <i>Diagrammatic representation of steady-state distributions and static</i> | |

HALL CRECO

Area A

MAIN CONFERENCE

Monday 6

| | | | |
|---------------|--------------|--|-------|
| 14.00 - 14.20 | Auconi A. | <i>Bayesian field theory of the rate estimation</i> | Chair |
| 14.20 - 14.40 | Aydin A. | <i>Measure-invariant parameter paths for ergotropic advantage in many-body...</i> | |
| 14.40 - 15.00 | Baggioli M. | <i>Topological and geometrical defects in amorphous solids</i> | |
| 15.00 - 15.20 | Bradley A. | <i>Nonequilibrium field theory of open quantum fluids</i> | |
| 15.20 - 15.40 | Brattan D.K. | <i>The Hamiltonian mechanics of exotic particles</i> | |
| 15.40 - 16.00 | Chor O. | <i>Statistical mechanics of Hamiltonian curl-force systems</i> | |
| 16.00 - 16.20 | Codello A. | <i>Rethinking dimensional regularization in critical phenomena</i> | |
| 16.20 - 16.40 | Cui B. | <i>From quantum to classical mechanics</i> | |
| 16.40 - 17.00 | Deroulers C. | <i>How does a cloud of random walkers with exclusion relax to equilibrium?</i> | |
| 17.00 - 17.30 | Coffee break | | |
| 17.30 - 17.50 | Di Bello C. | <i>Exactly solvable diffusions from space-time transformations</i> | Chair |
| 17.50 - 18.10 | Farago O. | <i>Entropy production in run-and-tumble particles mapped to Brownian motion</i> | |
| 18.10 - 18.30 | Ghosh A. | <i>Determining the net direction of information flow in mutually coupled</i> | |
| 18.30 - 18.50 | Gligoric G. | <i>Nonlinear floquet edge states in an asymmetric driven SSH lattice</i> | |
| 18.50 - 19.10 | Matsuzoe H. | <i>Information-geometric structures induced by generalized relative entropies</i> | |
| 19.10 - 19.30 | Wada T. | <i>Symmetric teleparallel gravity and information geometry</i> | |
| 19.30 - 19.50 | Ilić V. | <i>Generalized Euler and Gibbs-Duhem relationship for generalized homogenous ...</i> | |

HALL GRABIS

| Workshop 13 | | Power-grid synchronization modelling | Monday 6 |
|-------------------|---------------------|---|-----------|
| 14.00 - 14.25 | Colet P. | <i>Transmission grid stability with large interregional power flows</i> | Chair |
| 14.25 - 14.50 | Kim H. | <i>Stability of modular power grids under minimal structural interventions</i> | Odor G. |
| 14.50 - 15.15 | Beck C. | <i>Understanding the complexity of frequency and phase angle fluctuations in power grids</i> | |
| 15.15 - 15.40 | Moreno D.C. | <i>The effects on power grid synchronization of increasing the level of refinement in</i> | |
| 15.40 - 16.05 | Wen X. | <i>PowerSINDy: Identifying nonlinear time-dependent dynamics in power grid frequency</i> | |
| 16.05 - 16.30 | Cirunay M.T. | <i>Topological insights into the resilience of european high-voltage grids: A cross-country..</i> | |
| 16.30 - 16.45 | Benedek K. | <i>A system divided: Stability and size dependence of segmented power grids</i> | |
| 16.45 - 17.00 | Odor G. | <i>The effect of HVDC lines in power-grids via Kuramoto modeling</i> | |
| 17.00 - 17.30 | Coffee break | | |
| Special Session 2 | | Flat Band Physics | Monday 6 |
| 17.30 - 17.50 | Flach S. | <i>Lyapunov spectrum scaling near integrability</i> | Chair |
| 17.50 - 18.10 | Efremidis N. | <i>Optical thermodynamics: From basic principles to optical pressure and thermalization</i> | Makris K. |
| 18.10 - 18.30 | Moustakas A. | <i>Spectral efficiency for the non-linear schroedinger channel in the low noise limit ...</i> | |
| 18.30 - 18.50 | Christodoulides D. | <i>Optical thermodynamics of nonlinear highly multimoded systems</i> | |
| 18.50 - 19.10 | Jeon D.H. | <i>Microcanonical thermodynamics of weakly perturbed optical solitons</i> | |
| 19.10 - 19.30 | Khajavikhan M. | <i>Entropy-driven processes in optics and photonics</i> | |
| 19.30 - 19.50 | Kokkinakis E.T. | <i>Thermalization speed of multimode nonlinear lattices</i> | |
| 19.50 - 20.10 | Mangini F. | <i>Statistical mechanics of spatial beam cleaning in nonlinear multimode optical fibers</i> | |

HALL TRAMONTANA

| Workshop 1 | | Stochastic Dynamics Beyond Gaussianity | Monday 6 |
|---------------|----------------------|--|------------|
| 14.15 - 14.35 | Vezzani A. | <i>Rare events, big jumps, and redundancy in random walkers target reaching</i> | Chair |
| 14.35 - 14.55 | Reuveni S. | <i>Doubly stochastic continuous time random walk</i> | Burioni R. |
| 14.55 - 15.15 | Oliveira F. | <i>Scaling, fractal dynamics, and critical exponents: A geometrical view of phase transition</i> | |
| 15.15 - 15.35 | Franosch T. | <i>Chiral active motion across scales: from exact ISF theory to macroscopic robot</i> | |
| 15.35 - 15.50 | Bassanoni A. | <i>Rare events and single big jump effects in Ornstein-Uhlenbeck processes (and beyond)</i> | Chair |
| 15.50 - 16.05 | Dolgunshv M. | <i>Number of local minima in discretetime fractional Brownian motion: non-Gaussian</i> | Metzler R. |
| 16.05 - 16.20 | García-Valladares G. | <i>Shaping optimal stochastic resetting via target distributions</i> | |
| 16.20 - 16.35 | Huang B. | <i>Properties of superdiffusive processes arising from compounded random walks</i> | |
| 16.35 - 16.50 | Zhou X. | <i>Entropy production in non-Gaussian active matter: fluctuation theorem for Levy-</i> | |
| 17.00 - 17.30 | Coffee break | | |
| 17.30 - 17.50 | Akimoto T. | <i>Observation-time-induced crossover in diffusion with fluctuating diffusivity</i> | Chair |
| 17.50 - 18.10 | Pastore R. | <i>Fickian non-Gaussian diffusion across thermal and non-thermal systems</i> | Sposini V. |
| 18.10 - 18.30 | Lanoiselee Y. | <i>Unifying heterogeneous diffusion in living cells</i> | |
| 18.30 - 18.45 | Obliger A. | <i>The simple biexponential relaxation to Fickian yet non-Gaussian diffusion in</i> | |

HALL OSTRIA

| Workshop 8 | | Statistical Physics of Complex Systems: Recent Advances and Open Challenges | Monday 6 |
|---------------|---------------------|---|-------------------|
| 14.00 - 14.30 | Kaneko K. | <i>Dimensional reduction, fluctuation-response relationship, and multi-timescale...</i> | Chair |
| 14.30 - 15.00 | Toyabe S. | <i>Information-thermodynamics analysis of a biological molecular machine in ...</i> | Meyer-Ortmanns H. |
| 15.00 - 15.20 | te Vrugt M. | <i>Collective dynamics of inertial active matter</i> | |
| 15.20 - 15.40 | Eichhorn R. | <i>An artificial motor protein that walks along a DNA track</i> | |
| 15.40 - 16.00 | Olmeda F. | <i>Self-similarity in the formation of the embryonic epigenome</i> | |
| 16.00 - 16.30 | Evans M. | <i>Cost of stochastic resetting</i> | |
| 16.30 - 17.00 | Majumdar S. | <i>Large deviations in resetting Brownian motions</i> | |
| 17.00 - 17.30 | Coffee break | | |
| 17.30 - 18.00 | Altieri A. | <i>Decoding emergent patterns in large microbial communities through the prism...</i> | Chair |
| 18.00 - 18.30 | Busiello D.M. | <i>Functional couplings for information propagation in multiscale interacting systems</i> | Sabhapandit S. |
| 18.30 - 19.00 | Plata C.A. | <i>Optimal harmonic confinement of a Brownian particle</i> | |
| 19.00 - 19.20 | Pal S. | <i>Tuning competitive first-passage outcomes in anomalous diffusion via ...</i> | |

HALL LIVA

| Workshop 4 | | Space and Astrophysical Plasmas: Complexity and Emergence | Monday 6 |
|---------------|---------------------|---|------------|
| 14.00 - 14.15 | | <i>Welcome and Introduction, by Summers, Danny</i> | Chair |
| 14.15 - 15.00 | Tsallis C. | <i>Nonadditive entropies in space science and turbulence</i> | Danny S. |
| 15.00 - 15.30 | Manousakis E. | <i>Emerging quantum many-body macroscopic coherence with non-trivial topology</i> | |
| 15.30 - 16.00 | Tirnakli U. | <i>Appearance of q-Gaussians in dynamical systems</i> | |
| 16.00 - 16.30 | Tempesta P. | <i>Group entropies, information theory and complexity</i> | |
| 16.30 - 17.00 | Livadiotis G. | <i>The theory of thermodynamic relativity</i> | |
| 17.00 - 17.30 | Coffee break | | |
| 17.30 - 18.00 | Beck C. | <i>Heavy tails in astrophysics</i> | Chair |
| 18.00 - 18.25 | Tamburrini A. | <i>Unifying kappa distribution models for nonequilibrium space plasmas: A superstatistical...</i> | Stucchi R. |
| 18.25 - 18.50 | Balasis G. | <i>Dynamical complexity and information transfer in geospace</i> | |
| 18.50 - 19.15 | Balasis S. | <i>Monte carlo generation of kappa distributions in kinetic plasma simulations</i> | |
| 19.15 - 19.35 | Dialynas K. | <i>Properties of energetic ions at Saturnian magnetosphere with Cassini measurements</i> | |
| 19.35 - 20.00 | Dialynas D. | <i>The subtracted-Kappa distribution and its properties</i> | |

Tuesday, July 7, 2026

MAIN HALL MAISTRO

| | Plenary | MAIN CONFERENCE | Tuesday 7 |
|---------------|--------------|---|-----------|
| 09.00 - 09.40 | Evans M. | <i>Optimal stochastic resetting strategies</i> | Chair |
| 09.40 - 10.20 | Parisi G. | <i>Spin glasses, complexity, and all that. A tale of serendipity</i> | |
| 10.20 - 11.00 | McComas D.J. | <i>The Outer Heliosphere: Revolutionary Observations and Non-Maxwellian Plasmas</i> | |
| 11.00 - 11.30 | Coffee break | | |

MAIN HALL MAISTRO

| | Keynote | MAIN CONFERENCE | Tuesday 7 |
|---------------|---------------------|---|-----------|
| 11.30 - 12.00 | Burioni R. | <i>Multiple dimensions in heterogeneous structures: From spectral properties...</i> | Chair |
| 12.00 - 12.30 | Metzler R. | <i>Anomalous diffusion, non-Gaussianity and long-range dependent motion</i> | |
| 12.30 - 13.00 | Pietronero L. | <i>30 Years of fractal universe debate: Status and perspectives</i> | |
| 13.00 - 13.30 | Vân P. | <i>About the dissipative Newton equation</i> | |
| 13:30 - 14.00 | Break | | |
| | Area A | MAIN CONFERENCE | |
| 14.00 - 14.20 | Łepek M. | <i>A solvable model for a generic aggregation process: Theoretical utopia or</i> | Chair |
| 14.20 - 14.40 | Nagayama R. | <i>Dual thermodynamic uncertainty relations: dissipation-coherence trade-off</i> | |
| 14.40 - 15.00 | Niemi A. | <i>Local topology and perestroikas in protein folding dynamics</i> | |
| 15.20 - 15.40 | Pszota M. | <i>Higher-order nonlocal thermodynamic theories of gravity</i> | |
| 15.40 - 16.00 | Ramgoolam S. | <i>Exact finite-N partition functions in matrix and tensor quantum mechanics</i> | |
| 16.00 - 16.20 | Rios-Monje C. | <i>Power maximization in an Otto engine for a harmonically confined colloidal</i> | |
| 16.20 - 16.40 | Rodríguez-Laguna J. | <i>Following the yellow brick road: hidden correlations along random geodesics</i> | |
| 16.60 - 17.00 | Romano S. | <i>From thermodynamic ensembles to conditioned dynamics via reweighting principle</i> | |
| 17.00 - 17.30 | Coffee break | | |
| | Area B | MAIN CONFERENCE | |
| 17.30 - 17.50 | Taitelbaum H. | <i>Statistical physics perspective on mercury droplet spreading on thin metal</i> | Chair |
| 17.50 - 18.10 | Constantoudis V. | <i>Surfaces versus networks: bridging their gap with applications in nanotechnology</i> | |
| 18.10 - 18.30 | Aarão Reis F. | <i>Kinetic models of thin film growth with nonmonotonic roughness evolution</i> | |
| 18.30 - 18.50 | Waitukaitis S. | <i>History-dependent fluctuations control static electricity</i> | |
| 18.50 - 19.10 | Benetatos P. | <i>Elasticity of bistable flexible and semiflexible polymers</i> | |

HALL GRECO

| | Workshop 10 | Validating forecasts of dynamical systems | Thursday 9 |
|---------------|-------------------|---|--------------------|
| 11.30 - 11.50 | Livina V. | <i>Validation and ground truth in stochastic forecasts of dynamical systems</i> | Chair Livina V. |
| 11.50 - 12.10 | Ludescher J. | <i>Predicting ENSO dynamics with climate network and complexity analyses</i> | |
| 12.10 - 12.30 | Marzi M. | <i>Inferring weighted networks across scales from coarse-grained data</i> | |
| 12.30 - 12.50 | Blesic S. | <i>Handling missing data and validating models under high data scarcity for ...</i> | |
| 13:00 - 14.00 | Break | | |
| | Special Session 3 | Flat Band Physics | Tuesday 7 |
| 14.00 - 14.20 | Danieli C. | <i>Fine-tuning localization in interacting flat band lattices</i> | Chair Flach S. |
| 14.20 - 14.40 | Rhim J. | <i>Topological states protected by local support symmetry and destructive....</i> | |
| 14.40 - 15.00 | Chirulli L. | <i>Interaction-driven Thouless pumping in all-flat-band lattices</i> | |
| 15.00 - 15.20 | Archilla J. | <i>Breathers in an all flatband lattice with hard on-site potential</i> | |
| 15.20 - 15.40 | Law K.T. | <i>Quantum metric lengths and quantum metric localization</i> | |
| 15.40 - 16.00 | Schmelcher P. | <i>Local and latent symmetries and their generalization to control localization</i> | |
| 16.00 - 16.20 | Flach S. | <i>Real space decay of flat band projectors from compact localized states</i> | |
| 16.20 - 16.40 | Pal B. | <i>The fascinating world of flat bands: From toy models to experiments</i> | |
| 17.00 - 17.30 | Coffee break | | |

| Special Session 4 | | Thermalization Universality Class of Nonintegrable Classical and Quantum Many-Body Systems | Tuesday 7 |
|-------------------|----------------------|--|------------|
| 17.30 - 17.50 | Campbell D. | <i>Diffusion as a signature of chaos in classical and quantum systems</i> | Chair |
| 17.50 - 18.10 | Bracci-Testasecca G. | <i>Semiclassical picture of the Heisenberg spin glass in two dimensions: from...</i> | Danieli C. |
| 18.10 - 18.30 | Christodoulidi H. | <i>Toda integrals as tools for measuring thermalisation in the Fermi-Pasta-...</i> | |
| 18.30 - 18.50 | Swietek R. | <i>Graph theory measures capture weak ergodicity breaking on large quantum...</i> | |
| 18.50 - 19.10 | Wang Y. | <i>Thermalization frustration and control of intermodal energy flow in</i> | |
| 19.10 - 19.30 | Rumpf B. | <i>Cold discrete breathers: statistical persistence of localized structures in....</i> | |
| 19.30 - 19.50 | Flach S. | <i>Thermalization of weakly nonintegrable FPUT and toda dynamics: A</i> | |

| HALL GRABIS | | | |
|---------------|-----------------------|--|-----------------|
| Workshop 7 | | Statistical Mechanics of Complex Systems | Tuesday 7 |
| 11.30 - 12.00 | Tsallis C. | <i>Conservative and dissipative nonlinear dynamical systems living in the world....</i> | Chair |
| 12.00 - 12.15 | Dabrowski N. | <i>Nonextensive entropies for black hole and cosmological horizons</i> | Tirnakli |
| 12.15 - 12.30 | Hansen A. | <i>A statistical mechanics approach to immiscible two-phase flow in porous....</i> | |
| 12.30 - 12.45 | Rapisarda A. | <i>Statistical analysis of precipitation data in Sicily</i> | |
| 13:00 - 14:00 | Break | | |
| 14.00 - 14.30 | Beck C. | <i>Superstatistical methods for complex systems</i> | Chair |
| 14.30 - 14.45 | Ilić V. | <i>Nonlinear Fokker-Planck equation for strongly pseudo-additive entropies</i> | Antonopoulos C. |
| 14.45 - 15.00 | Debnath M.K. | <i>Blaxial phase transition in nematic liquid crystals: A Monte Carlo simulation....</i> | |
| 15.00 - 15.15 | Abdoli I. | <i>Brownian gyrators: from mono- to quadrupolar gyration</i> | |
| 15.15 - 15.30 | Spagnolo B. | <i>Noise-enhanced metastability and perception in complex systems: From</i> | |
| 15:30 - 16:00 | Workshop Break | | |
| 16.00 - 16.30 | Jensen H.J. | <i>Group entropies and statistical physics: Equilibrium condition, first....</i> | Chair |
| 16.30 - 16.45 | Biham O. | <i>First return processes on random networks</i> | Eroglu D. |
| 16.45 - 17.00 | Lopez J. | <i>Information theory approach to measure long-memory in experimental....</i> | |
| 17.00 - 17.30 | Coffee break | | |
| 17.30 - 17.45 | Lamb J. | <i>Mean-field and fluctuations for hub dynamics in heterogeneous random</i> | Chair |
| 17.45 - 18.00 | Pagni V. | <i>Universality in power-of-two graphs</i> | Eroglu D. |
| 18.00 - 18.15 | Bazzani A. | <i>Data driven Markov models to study congestion formation in transport</i> | |
| 18.15 - 18.45 | Workshop Break | | |
| 18.45 - 19.00 | Ghosh S. | <i>Pulses that organize: Collective pattern formation in swarmalators</i> | Chair |
| 19.00 - 19.15 | Antonopoulos C. | <i>From local instability to global chaos: How Hamiltonian dynamics builds</i> | Beck C. |
| 19.15 - 19.30 | Tirnakli U. | <i>Central limit behavior in low-dimensional dynamical systems</i> | |
| 19.30 - 19.45 | Eroglu D. | <i>Data-driven reconstruction of brain network dynamics from short and</i> | |

| HALL TRAMONTANA | | | |
|-----------------|---------------------|--|-----------------|
| Workshop 6 | | Data Driven Approaches in Natural Systems: Statistical Physics, Machine Learning, and Spatiotemporal Methods | Tuesday 7 |
| 11.30 - 11.50 | Deo N. | <i>Exploring the El Nino climate phenomena using data-driven methods of</i> | Chair |
| 11.50 - 12.10 | Žukovič M. | <i>Data-driven Ginzburg--Landau dynamics for non-Gaussian spatial fields</i> | Hristopoulos D. |
| 12.10 - 12.30 | Nerantzaki S. | <i>Natural time analysis of rainfall event series across various hydroclimatic regimes</i> | |
| 12.30 - 12.50 | Koltsidopoulou M. | <i>Geostatistical modeling of nanoscale dissolution dynamics at mineral-....</i> | |
| 12.50 - 13.10 | Paraskakis N. | <i>Karhunen-loeve expansion of the Brownian oscillator kernel</i> | |
| 13.10 - 13.30 | Hristopoulos D. | <i>Sparse precision (interaction) kernels for machine learning</i> | |
| 13:30 - 14:00 | Break | | |
| Workshop 11 | | Higher-order structures, synchronization, and emergent behavior in physical, biological, and social networks | Tuesday 7 |
| 14.00 - 14.05 | | <i>Opening</i> | Chair |
| 14.05 - 14.30 | Serrano M.A. | <i>Multiscale self-similarity in the structure and evolution of complex networks</i> | Gupta N. |
| 14.30 - 14.55 | Shapoval A. | <i>A Benchmark for self-organized criticality</i> | |
| 14.55 - 15.20 | Andjelkovic M. | <i>Q-analysis of brain network architectures across multiple scales</i> | |
| 15.20 - 15.45 | Egas Santander D. | <i>From neuron morphology to connectivity motifs through a topological view ...</i> | |
| 15.45 - 16.10 | Odor G. | <i>Scale-free behavior of weight distributions of connectomes</i> | |
| 16.10 - 16.35 | Morozov A. | <i>Neural network optimization strategies and the topography of the loss</i> | |
| 16.35 - 17.00 | Bertotti M.L. | <i>How trust and higher-order interactions shape the timing of idea adoption</i> | |
| 17.00 - 17.30 | Coffee break | | |

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|---------------|----------------|--|----------------------|
| 17.30 - 17.55 | Drożdż S. | <i>Natural language as a complex system: Long-range correlations, punctuation...</i> | Chair Shapoval A. |
| 17.55 - 18.20 | Malarz K. | <i>Bak--Tang--Wiesenfeld model for various topologies and ranges of interaction</i> | |
| 18.20 - 18.45 | Gupte N. | <i>Dynamics of Kuramoto oscillators based on small systems</i> | |
| 18.45 - 19.10 | Wang W. | <i>Synchronization in the complexified Kuramoto model</i> | |
| 19.10 - 19.35 | Kusmartsev F. | <i>Frustration-induced criticality and polarised consensus in antagonistic ...</i> | |
| 19.35 - 20.00 | Andjelkovic M. | <i>The role of geometric higher-order interactions in hysteresis behaviour</i> | |

HALL OSTRIA

| Workshop 8 | | Statistical Physics of Complex Systems: Recent Advances and Open Challenge | Tuesday 7 |
|---------------|---------------------|--|------------------------|
| 11.30 - 12.00 | Sabhapandit S. | <i>Proxitaxis: An adaptive search strategy based on proximity and stochastic resetting</i> | Chair |
| 12.00 - 12.30 | Takeuchi K.A. | <i>Various phases of active matter emerging from bacteria and some future perspectives</i> | Fodor E. |
| 12.30 - 12.50 | Harunari P. | <i>Stochastic excursions: Counting observables and noise</i> | |
| 13:00 - 14.00 | Break | | |
| 14.00 - 14.30 | Krishnamurthy S. | <i>Thermodynamic cost of finite-time (recurrent) erasure</i> | Chair Sivak D.A. |
| 14.30 - 15.00 | Ito S. | <i>Thermodynamic driving forces, and dissipation</i> | |
| 15.00 - 15.30 | Baek Y. | <i>Inferring trajectory-level information flow from timeseries data</i> | |
| 15.30 - 16.00 | Lee J.S. | <i>Unified hierarchy of fluctuation-response identities and inequalities in</i> | |
| 16.00 - 16.20 | Lucente D. | <i>Thermal equilibrium with generalized time-reversal symmetry</i> | |
| 16.20 - 16.40 | Santra I. | <i>Still surprises of heat transport in harmonic crystals</i> | |
| 16.40 - 17.00 | Van Vu T. | <i>Geometric complexity in thermodynamics: A complexity unattainability....</i> | |
| 17.00 - 17.30 | Coffee break | | |
| 17.30 - 17.50 | Manikandan S. | <i>Localizing energy dissipation in cellular processes</i> | Chair Bechhoefer J. |
| 17.50 - 18.10 | Cocconi L. | <i>Mechanosensing via inhibition of dissipation in a thermodynamically ...</i> | |
| 18.10 - 18.30 | Mandal R. | <i>Dense & disordered active matter</i> | |
| 18.30 - 18.50 | Cleuren B. | <i>Sorting by resetting</i> | |
| 18.50 - 19.05 | Mohite A.T. | <i>Minimum action principle for entropy production rate of far-from-</i> | |
| 19.05 - 19.20 | Cristin J. | <i>Magnetic-like model for chemotactic navigation in ants</i> | |
| 19.20 - 19.35 | Bilal Biloa K. | <i>Optimal navigation in stochastic environments: insights from driven....</i> | |

HALL LIVA

| Workshop 4 | | Space and Astrophysical Plasmas: Complexity and Emergence | Tuesday 7 |
|---------------|---------------------|--|---------------------|
| 11.30 - 11.55 | Elliott H. | <i>Automatically Plotting & Identifying Interplanetary CMEs & SIRs in insitu</i> | Chair |
| 11.55 - 12.15 | Katsavrias C. | <i>Polytropic index of interplanetary CMEs & SIRs near L1</i> | Dialynas K. |
| 12.15 - 12.40 | Deyeh M. | <i>Interplanetary magnetic field line stretching by an expanding CME:</i> | |
| 12.40 - 13.00 | Kontogiannis I. | <i>Monitoring the evolution and activity of solar super-active regions</i> | |
| 13:00 - 14.00 | Break | | |
| 14.00 - 14.40 | McComas D. | <i>Interstellar mapping & acceleration probe, IMAP: Overview, early science</i> | Chair Heather E. |
| 14.40 - 15.10 | Gkiolidou M. | <i>Revisiting the INCA belt with IMAP energetic neutral atom (ENA) observations</i> | |
| 15.10 - 15.25 | Horaites K. | <i>The SOLAR-1 magnetometer and space weather monitoring around L1</i> | |
| 15.25 - 15.45 | Kasapis S. | <i>A living catalog of SEP events observed by IMAP</i> | |
| 15.45 - 16.05 | Cuesta M. | <i>Mesoscale structure of an interplanetary shock near 1 au: A multi-....</i> | |
| 16.05 - 16.25 | Sarlis N. | <i>Origins of persistence in energetic neutral atom time series from IBEX</i> | |
| 16.25 - 16.35 | Turner D. | <i>Revealing the magnitude and magnetohydrodynamic to ion-kinetic scale</i> | |
| 16.35 - 17.00 | Livi S. | <i>Distribution Functions in the suprathermal regime at and around shocks</i> | |
| 17.00 - 17.30 | Coffee break | | |
| 17.30 - 17.55 | Habbal S. | <i>On the evolution of the solar wind, plasma instabilities, and CMEs from the....</i> | Chair Cuesta M. |
| 17.55 - 18.20 | Vassiliadis D. | <i>NOAA's SWFO program: CCOR-1 and the SOLAR-1 observatory</i> | |
| 18.20 - 18.45 | Pierrard V. | <i>Kappa distributions in solar wind and magnetospheric plasmas</i> | |
| 18.45 - 19.10 | Nicolaou G. | <i>Probing the solar wind energetics in the inner heliosphere with solar orbiter</i> | |
| 19.10 - 19.35 | D'Amicis R. | <i>Alfvénicity & nonMaxwellian features in solar wind streams: Insights from solar orbiter</i> | |
| 19.35 - 20.00 | La Vacca G. | <i>Probing plasma complexity: Emergent stability of particle diffusion during</i> | |

Wednesday, July 8, 2026

MAIN HALL MAISTRO

| Plenary | MAIN CONFERENCE | Wednesday 8 |
|---------------|---|-------------|
| 09.00 - 09.40 | Kaxiras E. <i>Twistronics: the unconventional behavior of electrons in two-dimensional</i> | Chair |
| 09.40 - 10.20 | Marinari E. <i>Inferring concepts from noisy examples in Hopfield-like neural networks</i> | |
| 10.20 - 11.00 | Pepper M. <i>New many body quantum states and non-magnetic fractional quantization</i> | |
| 11.00 - 11.30 | Coffee break | |

MAIN HALL MAISTRO

| Keynote | MAIN CONFERENCE | Wednesday 8 |
|---------------|---|-------------|
| 11.30 - 12.00 | Caldarelli G. <i>Materials discovery: the role of Networks and AI</i> | Chair |
| 12.00 - 12.30 | Caruso F. <i>Quantum artificial intelligence: from theoretical physics foundations to real-....</i> | |
| 12.30 - 13.00 | Tkachenko A. <i>Learning without the machine: Thermodynamic, chemical, evolutionary</i> | |
| 13.00 - 13.30 | Tsironis G. <i>Artificial intelligence and complex dynamical systems</i> | |
| 13:30 - 14.00 | Break | |

| Area D | MAIN CONFERENCE | Wednesday 8 |
|---------------|---|-------------|
| 14.00 - 14.20 | Cafisso M. <i>Criticality and temporal complexity in a stochastic exponential dense</i> | Chair |
| 14.20 - 14.40 | Gawronski P. <i>Imitation strategy in the Rosenzweig-MacArthur model</i> | |
| 14.40 - 15.00 | Ghio D. <i>Latent kinetic Ising models for neural spike trains</i> | |
| 15.00 - 15.20 | Krawczyk M. <i>Not all chaos is the same</i> | |
| 15.20 - 15.40 | Lee D. <i>Dynamic neuron approach to deep neural networks</i> | |
| 15.40 - 16.00 | Shaidurov V. <i>Exact predictability and krylov complexity in large chaotic networks</i> | |
| 16.00 - 16.20 | Sinha S. <i>Configurational probability and glassy phase transition in two-phase flow in...</i> | |
| 16.20 - 16.40 | Wang R. <i>Dirac-equation signal processing</i> | |
| 16.40 - 17.00 | Yadav A. <i>Memory is distributed across time in chaotic networks</i> | |
| 17.00 - 17.30 | Coffee break | |

| Area A | MAIN CONFERENCE | Wednesday 8 |
|---------------|--|-------------|
| 17.30 - 17.50 | Puertas Centeno D. <i>A new structure of informational functionals and inequalities</i> | Chair |
| 17.50 - 18.10 | Spagnolo B. <i>The particles number inside a bounded area of a vessel for a mixture of two gases</i> | |
| 18.10 - 18.30 | Yoshimura K. <i>Quasiprobability thermodynamic uncertainty relations</i> | |
| 18.30 - 18.50 | Yurovsky V. <i>Eigenstate thermalization to non-Gibbs states in strongly-interacting</i> | |
| 18.50 - 19.10 | Ellinas D. <i>Superposition of topologies: indefinitely ordered composition of quantum...</i> | |
| 19.10 - 19.30 | Baybusinov I. <i>A grand-canonical solution to a class of random optimization problems</i> | |
| 19.30 - 19.50 | Field T. <i>Spectral theory of spin relaxation</i> | |
| 19.50 - 20.10 | Gerasimenko V. <i>Hierarchies of evolution equations for correlations in open quantum systems</i> | |

HALL GRECO

| Special Session 1 | Computing in Spin Glass and Beyond | Wednesday 8 | |
|-------------------|--|--------------------------|--|
| 11.30 - 11.45 | Bae S. <i>Learning the local physics of quenched disorder with generative models</i> | Chair Marinari E. | |
| 11.45 - 12.00 | Biroli G. <i>Theory of memorisation and generalisation in diffusion models of generative AI:</i> | | |
| 12.00 - 12.15 | Decelle A. <i>Learning dynamics and cascade of phase transitions in the restricted Boltzmann machine</i> | Chair Martin-Mayor V. | |
| 12.15 - 12.30 | Seoane A. <i>Spin glass algorithms to control the training of energy-based generative models</i> | | |
| 13.00 - 14.00 | Break | | |
| 14.30 - 14.45 | Cammarota C. <i>Escaping uninformative minima: The role of initialization and Landscape</i> | | |
| 14.45 - 15.00 | Rossi S. <i>Dreaming and clipping in the Hopfield model</i> | | |
| 15.00 - 15.15 | Yllanes D. <i>Dreaming and clipping in the Hopfield model.</i> | | |
| 15.15 - 15.30 | Ruiz-Lorenzo J.J. <i>Ultrametric predictions for small-field chaos in spin glasses: theory and simulations</i> | | |
| 15.30 - 15.45 | Parisi G. <i>Non-perturbative effects in spin glasses</i> | | |
| 15.45 - 16.00 | Martin-Mayor V. <i>Are we entering the "Houdayer era" for spin glass simulations?</i> | | |
| 16.00 - 16.15 | Pilati S. <i>Spin-glass phases in quantum simulators: projection quantum Monte Carlo studies</i> | | |
| 16.15 - 16.30 | Pemartin I.G.A. <i>A Long Prism Geometry for Spin Glasses: Intensive simulations and the lower</i> | | |
| 16.30 - 16.45 | Leuzzi L. <i>Multi-photon quantum simulation of generalized dense Hopfield models</i> | | |
| 16.45 - 17.00 | Valigi P. <i>Generalized Lotka-Volterra model on sparse asymmetric graphs: local equations</i> | | |

| | | | |
|---------------|---------------------|--|----------------------------|
| 17.00 - 17.30 | Coffee break | | |
| 17.30 - 17.45 | Fytas N. | <i>Recent developments in the random-field Ising model</i> | Chair Ruiz-Lorenzo J.J. |
| 17.45 - 18.00 | Codello A. | <i>The phase boundary of the random site Ising model</i> | |
| 18.00 - 18.15 | Vasilopoulos A. | <i>Tricritical slowing down in hybrid update schemes</i> | |
| 18.15 - 18.30 | Janita M.A. | <i>Does the spin-glass transition survive in a magnetic field? Numerical results in...</i> | |
| 18.30 - 18.45 | Rissone P. | <i>Cluster-based message-passing optimization in Rugged energy landscapes</i> | |
| 18.45 - 19.00 | Chillin C. | <i>Spin glass phase of Edwards Anderson 3D at very low temperatures and largest-...</i> | |
| 19.00 - 19.15 | Porras E.P. | <i>Improving quantum annealing success rate with machine learning</i> | |

HALL GRABIS

| | | | |
|--|-----------------------|---|-----------------------|
| Workshop 9 | | Non-equilibrium phenomena and fluctuation theorems in physics and biology | Wednesday 8 |
| <i>Biological physics at nano-scales</i> | | | |
| 11.30 - 11.55 | Lässig M. | How the immune system learns about pathogens | Chair Morozov A.V. |
| 11.55 - 12.20 | Brown A. | Physical mechanisms of regulating mitochondrial protein levels | |
| 12.20 - 12.35 | Kabakcioglu A. | Speeding up RNA denaturation by cooling | |
| 12.35 - 13.00 | Rossi S. | Fluctuations and predictability in protein evolution | |
| 13:00 - 14.00 | Break | | |
| 14.00 - 14.25 | Sivak D. | <i>Energy and information flows transduce free energy in biomolecular machines</i> | Chair Morozov A.V. |
| 14.25 - 14.50 | Tkachenko A. | <i>Emergence of natural selection and catalytic function in prebiotic information-....</i> | |
| 14.50 - 15.15 | Morozov A. | <i>Non-equilibrium dynamics in evolutionary game theory and population genetics</i> | |
| 15.15 - 15.30 | Pham T. | <i>Entropy production rate in stochastically time-evolving asymmetric networks</i> | |
| 15.30 - 15.40 | Workshop Break | | |
| 15.40 - 16.05 | Pinheiro F. | <i>Growth and efficiency principles of bacterial metabolism</i> | Chair Morozov A.V. |
| 16.05 - 16.30 | Wang J. | <i>Quantifying the landscape and flux as the nonequilibrium driving forces for cell...</i> | |
| <i>Active matter</i> | | | |
| 16.30 - 16.45 | Cheng C. | Shortcuts to state transitions for active matter | Chair Morozov A.V. |
| 16.45 - 17.00 | Choe Y. | Symmetry-breaking motility in disordered nematic active fluids | |
| 17.00 - 17.30 | Coffee break | | |
| 17.30 - 17.45 | Li G. | <i>Universal performance bound for active machines</i> | |
| <i>Non-equilibrium statistical mechanics</i> | | | |
| 17.45 - 18.10 | Yang Y.-J. | <i>A principled basis for nonequilibrium stochastic dynamics</i> | Chair Morozov A.V. |
| 18.10 - 18.25 | Di Bello C. | <i>On the identifiability of response functions from fluctuations away from equilibrium</i> | |
| 18.25 - 18.50 | Rubi M. | <i>Chaperone-Mediated Entropic Separation of Amyloid Nanofilaments</i> | |
| 18.50 - 19.05 | Puga Cital E. | <i>Violations of the thermodynamic uncertainty relation in autonomous ...</i> | |
| 19.05 - 19.20 | Qin J. | <i>Martingale forecasts of heat dissipation in non-equilibrium relaxations</i> | |
| 19.20 - 19.35 | Xiang C. | <i>Shortcuts to parameter sweep</i> | |

HALL TRAMONTANA

| | | | |
|-------------------|--------------|--|--------------------|
| Workshop 5 | | Mesoscopic-scale liquid modeling, new perspectives for theoretical and experimental development | Wednesday 8 |
| 11.30 - 11.35 | | <i>Welcome and Introduction</i> | Chair Peluso F. |
| 11.35 - 11.50 | Baggioli M. | <i>Why honey crawls and water runs: atomistic mechanisms of viscosity in 2D fluids</i> | |
| 11.50 - 12.05 | Cockrell C. | <i>Vibrations, diffusions, and currents (oh my!) – Untangling the mechanisms ...</i> | |
| 12.05 - 12.20 | Eapen J. | <i>Quasi normal modes in liquids</i> | |
| 12.20 - 12.35 | Noirez L. | <i>Is liquid shear elasticity a typical case of survivorship bias in physics?</i> | |
| 12.35 - 12.50 | Peluso F. | <i>Are liquids held together by springs? The mesoscopic foundations of the NET....</i> | |
| 12.50 - 13.05 | Tsori Y. | <i>Emergence of constructal thermal networks: topology optimization with</i> | |
| 13.05 - 13.30 | | <i>Around the table general discussion</i> | |
| 13:30 - 14.00 | Break | | |

| Workshop 2 | | Mathematical Ideas across Multiple Scales in Networks | Wednesday 8 |
|---------------|---------------------|---|---------------|
| 14.00 - 14.20 | del Genio C. | <i>Discrete mathematics of higher-order networks</i> | Chair |
| 14.20 - 14.40 | de Lellis P. | <i>Synchronizability in networks with higher-order directed interactions</i> | Boccaletti S. |
| 14.40 - 15.00 | Ghanbarnejad F. | <i>Universal geometric structure of epidemic spreading across scales</i> | |
| 15.00 - 15.20 | Mendes J. | <i>When does diversity matter in binary-choice dynamics?</i> | |
| 15.20 - 15.40 | di Matteo T. | <i>Network based filtering tools: a machine learning framework</i> | |
| 15.40 - 16.00 | Boccaletti S. | <i>Parenclitic hypergraphs and their applications to personalized medicine</i> | |
| 16.00 - 16.20 | Bianconi G. | <i>Topology shapes dynamics</i> | |
| 16.20 - 16.40 | Parmananda P. | <i>Collectivity via connectivity</i> | |
| 16.40 - 17.00 | Mokryn O. | <i>Temporal ordering dominates spreading processes on contact networks</i> | |
| 17.00 - 17.30 | Coffee break | | |
| 17.30 - 17.40 | Chotalia A.A. | <i>Optimal energy pumping in an entrained neural system via frequency shuffling</i> | Chair |
| 17.40 - 17.50 | Lee D. | <i>Bulk-boundary decomposition of neural networks</i> | Bianconi G. |
| 17.50 - 18.00 | Auti G. | <i>Hebbian physics networks: Self-organized transport geometry from local ...</i> | |

HALL OSTRIA

| Workshop 8 | | Statistical Physics of Complex Systems: Recent Advances and Open Challenges | Wednesday 8 |
|---------------|---------------------|--|-------------|
| 11.30 - 12.00 | Bechhoefer J. | <i>An information engine with high performance and efficiency</i> | Chair |
| 12.00 - 12.30 | Sivak D.A. | <i>Thermodynamic geometry for control of stochastic systems</i> | Cocconi L. |
| 12.30 - 13.00 | Fodor E. | <i>Motile defects in contractile tissues: Insights from pulsating active matter</i> | |
| 13:00 - 14:00 | Break | | |
| 14.00 - 14.30 | Serrano M.A. | <i>Statistical mechanics of random hyperbolic graphs</i> | Chair |
| 14.30 - 15.00 | Odor G. | <i>Fluctuation-dissipation of the Kuramoto model on fruit-fly connectomes</i> | Lucente D. |
| 15.00 - 15.30 | Merbis W. | <i>Sociohydrodynamics of polarization and segregation: largescale spatial ...</i> | |
| 15.30 - 16.00 | Klages R. | <i>Modeling the movements of organisms: Movement ecology meets active ...</i> | |
| 16.00 - 16.20 | Santos F.A.N. | <i>Interdependent scaling exponents in the human brain</i> | |
| 16.20 - 16.40 | Saad D. | <i>Random feature mapping for optical computing</i> | |
| 16.40 - 17.00 | Meyer-Ortmanns H. | <i>Mechanisms to induce metastable brain dynamics</i> | |
| 17.00 - 17.30 | Coffee break | | |
| 17.30 - 17.50 | Pinero J. | <i>Nonreciprocal Hopfield nets for the endothelial-mesenchymal transition:...</i> | Chair |
| 17.50 - 18.10 | Jin J. | <i>Predictive fluctuating hydrodynamics simulations of interacting particles ...</i> | Eicchorn R. |
| 18.10 - 18.30 | Rene A. | <i>Computing moments for arbitrary microcanonical distributions over graphs</i> | |
| 18.30 - 18.45 | Kwon E. | <i>Fluctuations of information flow: exactly solvable cases</i> | |
| 18.45 - 19.00 | Castro A.P. | <i>Antonio Patr ˆon Castro, Harnessing higher-dimensional fluctuations in an ...</i> | |
| 19.00 - 19.15 | Rusch R. | <i>Characterizing the dynamics of driven Brownian particles in optical lattices</i> | |
| 19.15 - 19.30 | Santos A. | <i>The Mpemba effect in delayed cooling: The descartes protocol</i> | |

HALL LIVA

| Workshop 4 | | Space and Astrophysical Plasmas: Complexity and Emergence | Wednesday 8 |
|---------------|---------------------|---|-------------|
| 11.30 - 11.50 | Kourakis I. | <i>Electrostatic solitary waves in space plasmas: Fundamental modeling & observations</i> | Chair |
| 11.50 - 12.10 | Kourakis I. | <i>Modulational instability and rogue wave formation in a two–electron–fluid plasma</i> | Kasapis S. |
| 12.10 - 12.35 | Stucchio R. | <i>Landau damping for non-Maxwellian distribution functions</i> | |
| 12.35 - 13.00 | Alterman B. | <i>Characterizing the impact of Alfvén wave forcing in interplanetary space on the....</i> | |
| 13:00 - 14:00 | Break | | |
| 14.00 - 14.30 | Kunz M. | <i>Velocity-space structure and differential heating of ions in solar-wind turbulence</i> | Chair |
| 14.30 - 14.55 | Vörös Z. | <i>Multiscale energy conversions in collisionless plasma turbulence: Dynamo,....</i> | Pierrard V. |
| 14.55 - 15.20 | Servidio S. | <i>Coherent structures and particles acceleration in space plasma turbulence</i> | |
| 15.20 - 15.45 | Consolini G. | <i>Irreversibility, energy cascade, and detailed balance violation in space plasma....</i> | |
| 15.45 - 16.10 | Zharkova V. | <i>Kinetic plasma turbulence generated by accelerated particles in 3D current</i> | |
| 16.10 - 16.30 | Horaites K. | <i>Geoelectric field caused by flux transfer in ionosphere-coupled Vlasov simulation</i> | |
| 16.30 - 17.00 | Zhdankin V. | <i>Non-equilibrium statistical mechanics in relativistic plasma turbulence</i> | |
| 17.00 - 17.30 | Coffee break | | |
| 17.30 - 18.00 | Oka M. | <i>Universal scaling law for particle energization in collisionless plasmas</i> | Chair |
| 18.00 - 18.30 | Khobarova O. | <i>Advances and challenges in geomagnetic storm prediction</i> | Horaites K. |
| 18.30 - 18.55 | Hristopoulos D. | <i>Statistical analysis of a SEP event: Fractional Brownian motion or not?</i> | |
| 18.55 - 19.20 | Malandraki O. | <i>Using type III radio bursts as evidence of particle escape from the Sun for</i> | |
| 19.20 - 19.40 | Sarlis N. | <i>Persistent behavior of low-energy SEP observed by Parker Solar Probe during</i> | |
| 19.40 - 20.00 | Kasapis S. | <i>Predicting SEP in the inner heliosphere using machine learning and PSP/ISOIS data</i> | |

Thursday, July 9, 2026

MAIN HALL MAISTRO

| Plenary | MAIN CONFERENCE | Thursday 9 |
|---------------|--|------------|
| 09.00 - 09.40 | Tsallis C. <i>Along the Boltzmann-Gibbs-von Neumann-Shannon legacy – Nonadditive entropies</i> | Chair |
| 09.40 - 10.20 | Majumdar S. <i>Dynamically emergent correlations</i> | |
| 10.20 - 11.00 | Bianconi G. <i>Gravity from entropy</i> | |
| 11.00 - 11.30 | Coffee break | |

MAIN HALL MAISTRO

| Keynote | MAIN CONFERENCE | Thursday 9 |
|---------------|---|------------|
| 11.30 - 12.00 | Consolini G. <i>Fluctuation relation in MHD turbulence: Entropy production and time-reversal...</i> | Chair |
| 12.00 - 12.30 | Ruppeiner G. <i>Could black hole thermodynamics play a role in black hole mergers?</i> | |
| 12.30 - 13.00 | Quevedo H. <i>Geometrothermodynamics</i> | |
| 13.00 - 13.30 | Caprini L. <i>Thermodynamics and emergent behavior of chiral active matter</i> | |
| 13:30 - 14.00 | Break | |
| Area A | MAIN CONFERENCE | Thursday 9 |
| 14.00 - 14.20 | Ruiz Pino N. <i>Feedback control: Markovian description and information bounds for the work</i> | Chair |
| 14.20 - 14.40 | Santalla S.N. <i>The hyperlink representation of entanglement and the inclusion-exclusion principle</i> | |
| 14.40 - 15.00 | Scardigli F. <i>Bekenstein bound and generalized entropies</i> | |
| 15.00 - 15.20 | Sevilla F.J. <i>Run-and-tumble dynamics with nonreciprocal transitions among three velocity states</i> | |
| 15.20 - 15.40 | Spiechowicz J. <i>Ultrafast directed transport via energy recuperation in non-Markovian systems</i> | |
| 15.40 - 16.00 | Jizba P. <i>From group entropies to black hole radiation: A thermodynamic perspective</i> | |
| 16.00 - 16.20 | Camp I. <i>Matrix-product state skeletons in Onsager-integrable quantum chains</i> | |
| 16.20 - 16.40 | Jin T. <i>Quantum to classical computability transition via negative Markov chains formalism</i> | |
| 16.40 - 17.00 | Özkaya K.E. <i>Extending the quantum boundary layer method to finite confinement potentials</i> | |
| 17.00 - 17.30 | Coffee break | |

HALL GRECO

| | | Thursday 9 |
|--|---|-----------------------|
| <i>Non-equilibrium statistical mechanics</i> | | |
| 11.30 - 11.55 | Noirez L. <i>From rheology to phonon-like energy transfer: the unexpected properties of</i> | Chair Morozov A.V. |
| 11.55 - 12.15 | Marder M. <i>Exact solutions of dynamic fracture</i> | |
| 12.15 - 12.35 | Batini L. <i>Two stories of metastability: Real-time dynamics of vacuum decay and long-range...</i> | |
| 12.35 - 12.55 | Castellini S. <i>Diffusiophoretic instability in gravitationally stable colloidal systems</i> | |
| 13.00 - 14.00 | Break | |
| Area C | MAIN CONFERENCE | Thursday 9 |
| 14.00 - 14.20 | Łepek M. <i>A fast and flexible algorithm to measure fractality in complex networks</i> | Chair |
| 14.20 - 14.40 | Makowski M. <i>A market-based gittins-type index for a transparent one-armed bandit with a...</i> | |
| 14.40 - 15.00 | Merbis W. <i>Hyperscaling relations of spatial fluctuations in urban populations</i> | |
| 15.00 - 15.20 | Niedostatek M. <i>Mining higher-order triadic interactions</i> | |
| 15.20 - 15.40 | Redaelli T. <i>Negative chemotactic drift induced by surface-driven hydrodynamic interactions</i> | |
| 15.40 - 16.00 | Zaid A.A. <i>Designing topological cluster synchronization patterns with the Dirac operator</i> | |
| 16.00 - 16.20 | Vismaya V.S. <i>Cyclic periodic synchronization in ring-star network of piecewise linear discontinuous maps</i> | |
| 17.00 - 17.30 | Coffee break | |

HALL GRABIS

| Area A | | MAIN CONFERENCE | Thursday 9 |
|---------------|-----------------------|--|------------|
| 11.30 - 11.50 | Karlova K. | <i>From quantum spins to classical dimers: approaching a Kasteleyn transition ...</i> | Chair |
| 11.50 - 12.10 | Strečka J. | <i>Near-Carnot quantum heat engine realized through a frustrated spin-1....</i> | |
| 12.10 - 12.30 | Téllez Calle D. | <i>Hydrodynamics of ultra-confined systems</i> | |
| 12.30 - 12.50 | Valdés-Hernández A. | <i>Entanglement beyond statistics in hybrid fermionic systems: A Moshinsky model....</i> | |
| 12.50 - 13.10 | Villarrubia Moreno D. | <i>Hagedorn phase transition in self-avoiding walks and optimal paths</i> | |
| 13.10 - 13.30 | Wolfson I. | <i>Geometric entropy: What any observer can know</i> | |
| 13:30 - 14.00 | Break | | |
| Area B | | MAIN CONFERENCE | Thursday 9 |
| 14.00 - 14.30 | Jensen M.H. | <i>Phase separation, oscillations and genetic resonance in cell dynamics</i> | Chair |
| 14.30 - 14.50 | Fruton P. | <i>Transition from quasi-2D to 3D regimes in convective dissolution under confinement</i> | |
| 14.50 - 15.10 | Girardier D. | <i>How does the environment interact with a molecular system? Insights from non-.....</i> | |
| 15.10 - 15.30 | González Méndez D. | <i>Transport properties in a model of confined granular mixtures at moderate densities</i> | |
| 15.30 - 15.50 | Gutierrez R. | <i>Nonequilibrium criticality in the dynamics of synchronizing oscillators</i> | |
| 15.50 - 16.10 | Moustakas A. | <i>Mitigation of epidemic spreading in random environments: The impact of testing</i> | |
| 16.10 - 16.30 | Bussoletti M. | <i>Non-Gaussian statistics of concentration fluctuations in free liquid diffusion</i> | |
| 16.30 - 16.50 | Giampaolo S.M. | <i>Topologically frustrated quantum batteries: From theoretical advantage to</i> | |
| 17.10 - 17.30 | Coffee break | | |

HALL TRAMONTANA

| Workshop 3 | | Complexity & Economics | Thursday 9 |
|---------------|---------------------|--|---------------------|
| 11.30 - 11.50 | Pietronero L. | <i>Economic fitness and complexity and AI for the economic analysis</i> | Chair Carbone A. |
| 11.50 - 12.10 | Yakovenko V. | <i>The imminent peaks of world population and CO2 emissions</i> | |
| 12.10 - 12.30 | Sosnovskiy S. | <i>Generalized Yule-Simon process</i> | |
| 12.30 - 12.50 | Ponta L. | <i>Relative cluster entropy and emergent risk diversity in financial volatility</i> | |
| 12.50 - 13.10 | Di Matteo T. | <i>Network based filtering tools: a machine learning framework</i> | |
| 13.10 - 13.30 | Yoon J. | <i>Empirical evidence from the financial market: A factor-conditional GAN for</i> | |
| 13:30 - 14.00 | Break | | |
| Area A | | MAIN CONFERENCE | Thursday 9 |
| 14.00 - 14.20 | Kosztolowicz T. | <i>Application of g-subdiffusion equation to model superdiffusion</i> | Chair |
| 14.20 - 14.40 | Montero A.M. | <i>Orientational ordering and correlations in a quasi-one-dimensional hard-dumbbell...</i> | |
| 14.40 - 15.00 | Li S.-W. | <i>The correlational entropy production and the macroscopic irreversibility problem</i> | |
| 15.00 - 15.20 | Lourens M. | <i>Generating generalised ground-state ansatzes from few-body examples</i> | |
| 15.20 - 15.40 | Lüders A. | <i>How the number of vertices determines the thermodynamics of hard polygon...</i> | |
| 15.40 - 16.00 | Maekawa Y. | <i>Geometric housekeeping-excess decomposition of information flow</i> | |
| 16.00 - 16.20 | Maluckov A. | <i>Compact localized states and ergodicity breaking in a nonlinear lattice model</i> | |
| 16.20 - 16.40 | Horiike Y. | <i>Non-thermalizing dynamics in quantum many-body systems on complex...</i> | |
| 16.40 - 17.00 | Husz D. | <i>Two-loop calculation of the incompressible active matter model with white ...</i> | |
| 17.00 - 17.30 | Coffee break | | |

HALL OSTRIA

| Workshop 12 | | Transport in quantum systems | Thursday 9 |
|-----------------------------------|----------------|--|------------------------|
| 11.30 - 12.00 | Pepper M. | <i>Electronic conduction in 1D - The 0.7 and spin polarisation</i> | Chair Yurkevich I. |
| 12.00 - 12.30 | Kravchenko S. | <i>Collective depinning and sliding of a quantum Wigner crystal in a two-dimensional ...</i> | |
| 12.30 - 12.45 | Kagalovsky V. | <i>Fractional conductances, dc noise, and fractional charges in the strongly interacting ...</i> | |
| 12.45 - 13.00 | Ridley M. | <i>Time-dependent noise spectroscopy of Majorana-bound states</i> | |
| 13:00 - 14:00 Break | | | |
| 14.00 - 14.20 | Gefen Y. | <i>Effective linear response in far-from-equilibrium anyonic beams</i> | Chair Kagalovsky V. |
| 14.20 - 14.40 | Lerner I. | <i>Coulomb blockade in a nonthermalized quantum dot</i> | |
| 14.40 - 15.00 | Kusmartsev F. | <i>Josephson superconductivity in 2D Luttinger liquid</i> | |
| 15.00 - 15.20 | Ohtsuki T. | <i>Universal stochastic dynamics of monitored fermions: From free to interacting systems</i> | |
| 15.20 - 15.40 | Gornyi I. | <i>Statistics-induced entanglement from Andreev-like tunneling in anyonic colliders</i> | |
| 15.40 - 16.00 | Pino Garcia M. | <i>Chaos and diffusion in twisted bilayer graphene</i> | |
| 16.00 - 16.20 | Gangardt D. | <i>Limit shape phenomena in quantum dynamics</i> | |
| 16.20 - 16.40 | Kuić D. | <i>Finite-time path field theory: perturbative and nonperturbative methods for quantum....</i> | |
| 16.40 - 17.00 | Bradley A. | <i>Regimes of steady state turbulence in a quantum fluid</i> | |
| 17.00 - 17.30 Coffee break | | | |

HALL LIVA

| Workshop 4 | | Space and Astrophysical Plasmas: Complexity and Emergence | Thursday 9 |
|-----------------------------------|----------------|--|----------------------|
| 11.30 - 11.55 | Fleishman G. | <i>Constraining coronal heating in solar active regions with microwave data</i> | Chair Sarlis N. |
| 11.55 - 12.20 | Dzifčáková E. | <i>FLARIX model of Si IV & O IV emission at loop footpoints due to electron beam</i> | |
| 12.20 - 12.45 | Paschalidis N. | <i>In-Situ & remote sensing of space plasmas – Science, technology and instrumentation</i> | |
| 12.45 - 13.00 | Sarlis V. | <i>4D-printed bistable compliant mechanisms in space science applications</i> | |
| 13:00 - 14:00 Break | | | |
| 14.00 - 14.30 | Fraschetti F. | <i>Particle acceleration and transport from young near-Sun solar wind unveiled by PSP</i> | Chair Kourakis I. |
| 14.30 - 14.55 | Yeimy R. | <i>Differentiating the acceleration mechanisms in the slow and Alfvénic slow solar wind</i> | |
| 14.55 - 15.20 | Chasapis A. | <i>Understanding nonthermal particle energization and turbulent dissipation in...</i> | |
| 15.20 - 15.45 | Arrò G. | <i>Nonthermal particle acceleration by magnetic pumping in pulsating plasmas</i> | |
| 15.45 - 16.10 | Ntormousi E. | <i>Strong magnetic turbulence and coherent structures as particle accelerators in the ISM</i> | |
| 16.10 - 16.35 | Tassis K. | <i>Precision galactic magnetometry</i> | |
| 16.35 - 17.00 | Livadiotis G. | <i>Kappa distributions: Theory and applications in space plasmas</i> | |
| 17.00 - 17.30 Coffee break | | | |

HALL SCIROCCO

| Poster Session | | Thursday 9 |
|----------------|--|------------|
| 17.30 - 19.00 | | |

HALL TRAMONTANA

| Meeting | | MDPI | Thursday 9 |
|---------------|-------------------------------|------|------------|
| 17.30 - 19.00 | <i>Entropy Editor Meeting</i> | | |

HALL OSTRIA

| Meeting | | EPS | Thursday 9 |
|---------------|------------------------------|-----|------------|
| 17.30 - 18.30 | <i>EPS board round table</i> | | |

Friday, July 10, 2026

MAIN HALL MAESTRO

| Special Event | | MAIN CONFERENCE | Friday 10 |
|---------------|---------------|---|-----------|
| 09.00 - 09.40 | Mori F. | <i>Dynamics and control out of equilibrium: From active to learning systems</i> | Chair |
| 09.40 - 10.20 | Sposini V. | <i>Subordination processes for non-Gaussian diffusion: A modelling framework ...</i> | |
| 10.20 - 11.00 | Vespignani A. | <i>Bridging statistical physics and real-world epidemics: Networks, mobility, and ...</i> | |
| 11.00 - 11.30 | Coffee break | | |

MAIN HALL MAESTRO

| Plenary | | Closing Ceremony | Friday 10 |
|---------------|---------------|------------------------|-----------|
| 11.30 - 12.00 | Kaniadakis G. | <i>Sigmaphi awards</i> | Chair |

Thursday, July 9, 2026

HALL SIROCCO

Poster section

Posters will be exposed in the HALL from Monday 08.30
Poster discussion will be held Thursday from 17.30 - 19.00

| | |
|----------------------|--|
| Almeida Silva P.F. | <i>Laplace network renormalization in functional brain networks</i> |
| Bag P. | <i>Directed autonomous motion of active Janus particles induced by wall-particle alignment interactions</i> |
| Bassous J. | <i>Fluid simulations of electrostatic solitary waves in non-Maxwellian plasmas</i> |
| Bekos K. | <i>Monthly sunspot number forecasting using Gaussian process regression with Brownian oscillator kernel</i> |
| Chun H.-M. | <i>Fluctuation-response theory for nonequilibrium Langevin dynamics</i> |
| Citton O. | <i>The statistical physics of learning in under- and over-parameterized layered neural networks</i> |
| Constantoudis V. | <i>Stochastic geometry of fiber intersections: effects of directional bias and dimensionality reduction</i> |
| De Moraes L. | <i>Entropy production and functional asymmetry in rs-fMRI dynamics</i> |
| Deng L. | <i>Thermalization scaling in monolayer graphene: wave turbulence and beyond</i> |
| Feng S. | <i>Impurity-scattering assisted umklapp scattering as the origin of low-temperature resistivity in the ...</i> |
| Field T. | <i>Dynamics of entangled spins under correlated classical random magnetic fields with sustainable entanglement ...</i> |
| Fronczak A. | <i>Granovetter's weak-tie paradox in scientific collaboration networks: Resolution and implications for ...</i> |
| García De Soria M.I. | <i>Self-diffusion in confined systems</i> |
| Gatouillat L. | <i>A mean field game approach for balancing intermittent power generation and consumption in electrical networks</i> |
| Giraldo Barreto J. | <i>Active matter flocking via predictive alignment</i> |
| Gligoric G. | <i>Compact topological edge localization in flux-dressed graphene photonic ribbons: interplay of Aharonov-...</i> |
| Grammenos K. | <i>Frequency-resolved criticality metrics from EEG data: Effective coupling and effective dimensionality...</i> |
| Gupta P. | <i>The phase transitions in a p spin glass model: A numerical study</i> |
| Hirsh E. | <i>Estimating directional interdependencies between critical infrastructure networks using GDELT data</i> |
| Jovković D. | <i>Barkhausen noise in disordered striplike ferromagnets: Experiment versus theory</i> |
| Kim D. | <i>Ensemble inequivalence in the elasticity of semiflexible polymers with reversible spontaneous curvature</i> |
| Kim M. | <i>Anticorrelated noise provably ensures stable convergence to flatter minima</i> |
| Kotukh Y. | <i>Positive geometry of enzymatic quantum tunneling in alcohol dehydrogenase</i> |
| Li W. | <i>Transfer learning of phase transitions in percolation and directed percolation</i> |
| Los V. | <i>Accounting for system-bath correlations in the time-local homogeneous master equation for an open...</i> |
| Mancic A. | <i>Reduced dynamical complexity of speech in psychosis: A Lyapunov perspective</i> |
| Noh G. | <i>Cross-linked and aligned polymer chain pairs under tension</i> |
| Paladi A. | <i>Ensemble-variational approach to environmental risk assessment of particulate matter</i> |
| Reyes Ferrer B.A. | <i>First passage time distribution of a Brownian particle in a viscoelastic bath</i> |
| Schnizer J.S. | <i>Analytical solution of overdamped Brownian motion in a periodic step potential</i> |
| Tamburrini A. | <i>Unifying kappa distribution models for non-equilibrium space plasmas: A superstatistical approach based ...</i> |
| Vàn P. | <i>Thermodynamic conditions ensure the stability of third-order extended heat conduction</i> |
| Ye C. | <i>Stability and transformation of skyrmion lattices in anisotropic Heisenberg antiferromagnets: From ...</i> |
| Yi M. | <i>Bundling and gelation: The phases of an array of parallel-aligned polymers with cross-links</i> |
| Zhu J. | <i>Towards a universal foundation model for protein dynamics: A multi-chain tree-structured framework ...</i> |
| Zhu J. | <i>The 1/3 geometric constant: Scale invariance and the origin of 'missing energy' in 3D quantum fragmentation</i> |