

Sunday 6 September 2026

18:00	This PDF is a programme overview and may contain outdated information. Please refer to the Detailed Programme page for the latest updates. 18:00 - 20:00 Registration & Welcome Drinks
20:00	20:00 - 20:45 Invited talk - Information, from Big Bang to Biology - Jens Gundlach Chair: F. Ritort

No more sessions on Sunday 6 September 2026

Monday 7 September 2026

08:50	08:50 - 09:00 Welcome Chair: F. Ritort
09:00	09:00 - 09:30 Invited Talk: Precision in a rush: temporal aspects of decision making - Aleksandra Walczak Chair: R. Burioni
09:30	09:30 - 10:00 Invited Talk - Massimo Vergassola Chair: R. Burioni
10:00	10:00 - 10:30 Invited Talk: Designing DNA and RNA aptamers with Restricted Boltzmann Machines - Simona Cocco Chair: R. Burioni
10:30	10:30 - 11:10 Coffee break
11:10	11:10 - 11:30 Nonreciprocal Hopfield Nets for Cell Differentiation: Beyond the Waddington Landscape - Jordi Pinero Chair: J. Casademunt
11:30	11:30 - 11:50 Neuromechanics of peristalsis - Sifan Yin Chair: J. Casademunt
11:50	11:50 - 12:10 The information encoded in water entropy controls protein sequestration into a biomolecular condensate- Giancarlo Franze Chair: J. Casademunt
12:10	12:10 - 12:30 Long-range transport of biomolecular condensates by Marangoni effect - Zhi Qi Chair: J. Casademunt
12:30	12:30 - 14:00 Lunch Break
14:00	14:00 - 14:30 Invited talk: RNA self assembly from biological machines to disordered condensates - Sarah Woodson Chair: M. Palassini

14:30	14:30 - 15:00 Invited talk: Non-equilibrium stabilization of unstable proteins - Paolo de los Rios Chairs: M. Baiesi, M. Palassini
15:00	15:00 - 15:30 Invited talk: Learning Many-Body Interactions from Biological Data - Beatriz Seoane Chairs: M. Baiesi, M. Palassini
15:30	15:30 - 16:10 Coffee break
16:10	16:10 - 16:30 The protein quake as a time-respecting random walk, and an emergent arrow of time in a biomolecular network - Ali Ana Atilgan Chairs: M. Baiesi, M. Palassini
16:30	16:30 - 16:50 Beyond Net Charge: Side-Chain Identity as a Critical Regulator of Intrinsically Disordered Protein Ensembles- Roy Beck Chairs: M. Baiesi, M. Palassini
16:50	16:50 - 17:10 A cascade of self-assembly and phase transitions as a route to the first nucleic acids- Tommaso Bellini Chairs: M. Baiesi, M. Palassini
17:30	17:30 - 19:00 1st Poster session

No more sessions on Monday 7 September 2026

Tuesday 8 September 2026

09:00	09:00 - 09:30 Invited Talk: An active DNA segregation module for synthetic cells - Marileen Dogterom Chair: J. Casademunt
09:30	09:30 - 10:00 Invited talk: From topological defects to embryos: How surface geometry informs bulk organisation - Anna Erzberger Chair: J. Casademunt
10:00	10:00 - 10:30 Invited talk: Inheritance Entropy: A New Method to Probe the Hereditary Structure of Cell Lineage Trees - Irene Giardina Chair: J. Casademunt
10:30	10:30 - 11:10 Coffee break
11:10	11:10 - 11:30 Nuclear packing in a developing epithelium - Fernando Casares Chair: I. Pastor
11:30	11:30 - 11:50 Nuclear Geometry Predicts the Spatial Patterning of Envelope Tension and Nuclear Pore Complex Conformation - Gotthold Fläschner Chair: I. Pastor

11:50	11:50 - 12:10 Injury-induced electrochemical coupling triggers organ growth - Jinghui Liu Chair: I. Pastor
12:10	12:10 - 12:30 Ensemble Theory of Active Fluctuations - Roman Belousov Chair: I. Pastor
12:30	12:30 - 14:00 Lunch Break
14:00	14:00 - 14:30 Invited talk - Thomas Lecuit Chair: J. Garcia-Ojalvo
14:30	14:30 - 15:00 Invited talk - Self-organised multi-agent morphogenesis: from living cells to robot swarms -James Sharpe Chair: J. Garcia-Ojalvo
15:00	15:00 - 15:40 Coffee break
15:40	15:40 - 16:00 Colony-to-cell feedback patterns phenotypes in bacterial biofilms-Joseph Larkin Chair: J. Garcia-Ojalvo
16:00	16:00 - 16:20 Capillary aggregation and surface waves in bacterial colonies - Ricard Alert Chair: J. Garcia-Ojalvo
16:30	16:30 - 18:00 2nd Poster session
18:05	18:05 - 18:15 Emmy Noether Distinction - Prof. Aleksandra Radenovic,EPFL, Lausanne, Switzerland Chair: A. Pawsey
18:15	18:15 - 18:35 Sponsors - Impetux
18:35	18:35 - 18:45 Sponsors - EPL
18:45	18:45 - 19:00 Sponsors - Elements
19:00	19:00 - 20:00 Piano Recital by Patrizia Marcatello
20:30	20:30 - 23:00  google.com/maps/place//data=!4m2!3m1!1s0x12a4a307e4ef03e9:0x44fd0ee725dcb24b?sa=X&ved=1t:8290&ictx=11 Conference dinner

No more sessions on Tuesday 8 September 2026

09:00	09:00 - 09:30 Invited Talk: Model-free lower bounds on entropy production - Udo Seifert Chair: R. Burioni
09:30	09:30 - 10:00 Invited Talk : Non-equilibrium thermodynamic probes of life - Edgar Roldan Chair: R. Burioni
10:00	10:00 - 10:30 Invited Talk: Why Life is Hot - Tanja Schilling Chair: R. Burioni
10:30	10:30 - 11:10 Coffee break
11:10	11:10 - 11:30 How to detect Molecular Motor Activity through Chromatin Tracking - Manoel Manghi Chair: G. Bisker
11:30	11:30 - 11:50 Control of active field theories at minimal dissipation - Artur Soriani Chair: G. Bisker
11:50	11:50 - 12:10 Efficient irreversibility quantification by categorization of stochastic single-molecule displacements - Stefano Bo Chair: G. Bisker
12:10	12:10 - 12:30 Self-sustained oscillations link spontaneous and information processes in the barrel cortex - Samir Suweis Chair: G. Bisker
12:30	12:30 - 14:00 Lunch Break
14:00	14:00 - 14:30 Invited talk: Accuracy and efficiency of template copying - Frank Jülicher Chair: M. Vergassola
14:30	14:30 - 15:00 Invited talk: Stochastic Force Inference: learning the dynamics of biological matter - Pierre Ronceray Chair: M. Vergassola
15:00	15:00 - 15:30 Invited talk: Thermodynamics of collective behavior - Nikta Fakhri Chair: M. Vergassola
15:30	15:30 - 16:10 Coffee break
16:10	16:10 - 16:30 Mitochondrial flux-force relations and power-efficiency tradeoff in living cells - Xingbo Yang Chair: E. Roldan

16:30	16:30 - 16:50 Illuminating non-trivial bacterial electrophysiology dynamics with a genetically encoded voltage indicator BacLai- Munehiro Assaly Chair: E. Roldan
16:50	16:50 - 17:10 Cluster Assembly Dynamics Drive Fidelity of Planar Cell Polarity Polarization - Sila Boye Nissen Chair: E. Roldan
19:30	19:30 - 21:30 https://maps.app.goo.gl/EwJYnNyEexZBunZCA Peer Gynt Gang Concert et Ocana Club

No more sessions on Wednesday 9 September 2026

Thursday 10 September 2026

09:00	09:00 - 09:30 Invited Talk: Nonequilibrium thermodynamics in biochemical networks: Towards answering Schrödinger's question - Yuhai Tu Chair: I. Giardina
09:30	09:30 - 10:00 Invited talk: Photons as Carriers of Energy and Information in Engineered Bacterial Life - Roberto di Leonardo Chair: I. Giardina
10:00	10:00 - 10:30 Invited Talk : Hopfield barriers - Jeremy Gunawardena Chair: I. Giardina
10:30	10:30 - 11:10 Coffee break
11:10	11:10 - 11:30 Synthetic Biological Circuits for Cellular Inference - Ramez Daniel Chair: M. Manosas
11:30	11:30 - 11:50 Entropy Production in Adaptive Biological Networks - Tuan Pham Chair: M. Manosas
11:55	11:55 - 12:30 Poster prize event Chairs: J. Casademunt, I. Pastor
12:30	12:30 - 13:30 Closure ceremony & Invited talk: Energy and Information in Thermodynamics and Beyond - Chris Jarzynski Chair: F. Ritort

No more sessions on Thursday 10 September 2026