

Monday-04-09

		Monday	04-09	
09:00	10:30			
		Opening		30 min
		Marian Smoluchowski his life and works	Prof. Cichocki Bogdan	30 min
		Arrays of coupled two-state oscillators	Prof. LINDENBERG, Katja	30 min
10:30	11:00	Coffee break		
11:00	12:30			
		Entropy facilitated active transport	Prof. RUBI, J. Miguel	30 min
		(Quantum)- Thermodynamics at strong coupling and its implications for Stochastic Thermodynamics	Prof. HÄNGGI, Peter	30 min
		Life at the edge, complexity and criticality in biological function	Prof. CHIALVO, Dante	30 min
12:30	14:30	Lunch break		
14:30	16:00	Session A		
		Dynamics of classical isolated disordered systems	Prof. CUGLIANDOLO, Leticia	30 min
		Quantum first detection time	Prof. BARKAI, Eli	30 min
		Mesoscopic and Metastable Quantum Systems	Prof. SPAGNOLO, Bernardo	30 min
14:30	16:00	Session B		
		A Tribute to Marian Smoluchowski's Legacy on Colloid Type Matter Aggregation, and Related Issues	Prof. GADOMSKI, Adam	30 min
		Stationary diffusion among partially reactive sinks: from von Smoluchowski to recent advances	Dr. GREBENKOV, Denis	20 min

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		Stochastic advection-reaction-diffusion model for phytoplankton populations in a 2D spatial domain	Dr. VALENTI, Davide	20 min
		Thermodynamic activation energy for self diffusion and order-order relaxation in intermetallic compounds: atomistic model and Monte Carlo simulations.	Prof. ABDANK-KOZUBSKI, Rafal	20 min
14:30	15:55	Session C		
		Transient anomalous diffusion in ratchet systems	Prof. ŁUCZKA, Jerzy	30 min
		Temperature-abnormal diffusivity and weak ergodicity breaking in space-periodic systems driven by external forces	Prof. MARCHENKO, Ivan	20 min
		Time-Dependent Fluctuations and Superdiffusivity in the Driven Lattice Lorentz Gas	Prof. FRANOSCH, Thomas	20 min
		Variational formula for the current generating function and finite-time thermodynamic uncertainty relations	Dr. DECHANT, Andreas	15 min
16:00	16:30	Coffee break		
16:30	18:00	Session A		
		Progressive quenching	Prof. SEKIMOTO, Ken	30 min
		Foundations of the Local Equilibrium Concept	Prof. HILFER, Rudolf	30 min
		Fluctuating hydrodynamics of one-dimensional nonlinear chains	Prof. POSCH, Harald	30 min
16:30	18:05	Session B		
		Harmonic spectral components in time sequences of Markov correlated events with an application to EEG and MEG signals	Prof. CARBONE, Anna	30 min

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		Characterizing rare fluctuations in soft particulate flows	Dr. E. RAHBARI, S. H.	20 min
		Glass transition as the consequence of spatially correlated stochastic dynamics	Dr. MAJKA, Maciej	15 min
		Long range correlations in dynamical systems and in observed data	Prof. KANTZ, Holger	30 min
16:30	17:50	Session C		
		Dynamical maps on quantum Orlicz spaces	Prof. MAJEWSKI, Wladyslaw Adam	30 min
		Where are we with the understanding of a collective dynamics of quasi-periodically perturbed particles?	Prof. STEFANOVSKA, Aneta	30 min
		Aerated Poisson distributions and their exact approximants	Prof. PENSON, Karol	20 min

		Tuesday	05-09	
09:00	10:30	Session A		
		Intermediate asymptotics and aging phenomena in anomalous transport by flows.	Prof. SOKOLOV, Igor	30 min
		Aging transient superdiffusive dynamics in in vivo neuronal mRNA transport: A Levy walk description	Prof. JEON, Jae Hyung	30 min
		Anomalous diffusion, ageing, and non-ergodicity	Prof. METZLER, Ralf	30 min
09:00	10:30	Session B		
		Induced motion of a probe in contact with a nonequilibrium medium	Prof. MAES, Christian	30 min
		How to Measure Load-Dependent Kinetics of Individual Motor Molecules Without a Force-Clamp	Prof. FLYVBJERG, Henrik	30 min
		Modelling heart rhythm variability in heart transplant patients by cellular automata on complex networks	Prof. MAKOWIEC, Danuta	30 min
09:00	10:10	Session C		
		Nonergodic dynamics in the plasma membrane of living cells	Prof. KRAPF, Diego	30 min
		Isothermal Langevin dynamics in systems with power-law spatially dependent friction	Prof. FARAGO, Oded	20 min
		Large deviations of surface height in the Kardar-Parisi-Zhang equation	Prof. MEERSON, Baruch	20 min
10:30	11:00	Coffee break		
11:00	12:30	Session A		
		Nonequilibrium steady states in Langevin thermal systems	Prof. PARK, Hyunggyu	30 min
		Brownian yet non-Gaussian Diffusion	Prof. CHECHKIN, Aleksei	30 min
		Transport of granular materials in turbulent flows (or sand in streams)	Prof. SCHUMER, Rina	30 min
11:00	12:30	Session B		

Tuesday-05-09

		A mesoscopic model for the DNA G-quadruplex stability analysis	Dr. FIASCONARO, Alessandro	30 min
		Diffusion of a tagged particle in two dimensional elastic networks	Prof. LOMHOLT, Michael	20 min
		Stochastic gene expression in cells undergoing division	Ochab-Marcinek	20 min
		Mechanical interactions affect biological evolution in bacterial colonies	Dr. WACLAW, Bartlomiej	20 min
11:00	12:30	Session C		
		Quantum model of self-oscillations in chemical engines	Prof. ALICKI, Robert	30 min
		Order in Quantum Compass and Orbital s_g Models	Prof. OLEŚ, Andrzej M.	20 min
		Path integral formalism of quantum thermodynamics	Dr. FUNO, Ken	20 min
		Quantum measurements of work fluctuations	Dr. HOVHANNISYAN, Karen	20 min
12:30	14:00	Lunch break		
14:00	15:30	Session A		
		Deep learning – results, origin and relation to statistical physics	Prof. CZESŁAW, Jędrzejek	30 min
		Memory in stochastic and chaotic processes	Prof. Fuliński Andrzej	20 min
		Generalized Poisson-Kac processes in statistical physics, thermodynamics and transport	Prof. GIONA, Massimiliano	20 min
		An anomalous diffusion approach to stochastic modeling for single molecule tracking of receptors and proteins at cell surface	Prof. WERON, Aleksander	20 min
14:00	15:30	Session B		
		Principles of design of artificial and biological molecular engines	Prof. HOLYST, Robert	30 min
		Complex dynamics of genomic sites in the nucleus of live cells	Prof. GARINI, Yuval	30 min
		Navigation and target search on human chromosomes	Dr. LIZANA, Ludvig	15 min
		Griffiths phases on a large human Open Connectome network	Dr. ÓDOR, Géza	15 min

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15:30	16:00	Coffee break		
16:00	17:35	Session A		
		Stochastic Dynamics in Biological Ion Channels	Prof. MCCLINTOCK, Peter	30 min
		Stochastic modeling of diffusion in dynamical systems: three examples	Dr. KLAGES, Rainer	30 min
		Understanding cooperativity and dynamic disorder in fluctuating enzymes at the single molecule level	Prof. CHAUDHURY, Srabanti	20 min
		Evolution of information within sEMG signals in the process of treatment	Dr. MACHURA, Łukasz	15 min
16:00	17:30	Session B		
		Nonuniversality of heat engine efficiency at maximum power	Dr. LEE, Sang Hoon	15 min
		Carnot efficiency is attainable in an irreversible process	Prof. LEE, Jaesung	20 min
		Two forms of heat transfer via interaction with heat bath	Prof. KWON, Chulan	20 min
		Identification of spatial diffusivity patches by the wavelet processing of single-particle trajectories	Prof. POSTNIKOV, Eugene	15 min
		Some analytical methods of solutions to nonlinear diffusion equation	Prof. GRZYWNA, Zbigniew	20 min

		Wednesday	06-09	
09:00	10:30	Session A		
		Looping and direct transit in Brownian particle escape from biased entropic traps	Dr. BEZRUKOV, Sergey	30 min
		Diffusive escape through a narrow opening : new insights into a classic problem	Prof. OSHANIN, Gleb	30 min
		Anomalous quantum diffusion of hydrogen atoms in proteins	Prof. KNELLER, Gerald	30 min
09:00	10:20	Session B		
		Autonomous thermal motors	Prof. IMPARATO, Alberto	20 min
		Out-of-equilibrium physics in spontaneous synchronization	Prof. RUFFO, Stefano	30 min
		Lyapunov Spectral Analysis of Randomly Coupled Systems	Dr. GHOSH, Anandamohan	15 min
		Novel Ordered phases in coupled driven systems: large compact clusters and fast dynamics	Dr. CHATTERJEE, Sakuntala	15 min
10:30	11:00	Coffee break		
11:00	12:30	Session A		
		Eliminating Inertia of a Stochastic Microswimmer with Constant Speed	Prof. SCHIMANSKY-GEIER, Lutz	30 min
		Heterogeneous continuous time random walk on graphs	Dr. TUPIKINA, Liubov	15 min
		Dynamics of self-propelled colloidal particles in viscoelastic fluids	Dr. GOMEZ SOLANO, Juan Ruben	15 min
		The quantum first detection problem: From the energy spectrum to the detection probabilities	Dr. THIEL, Felix	15 min
		Switching of wake-mediated interaction caused by blockade effect and collective wake formation	Mr. KLIUSHNYCHENKO, Oleksandr	15 min
11:00	12:35	Session B		

Wednesday-06-09

		Diffusion and dynamic scaling in concentrated charge-stabilized colloidal suspensions	Prof. NAEGELE, Gerhard	30 min
		Exact solution for a $\phi_1 + \phi_2$ etching model.	Prof. OLIVEIRA, Fernando	30 min
		Subdiffusion in a system consisting of two different media	Dr. KOSZTOŁOWICZ, Tadeusz	15 min
		Random dynamics in a trap: Killing vs survival	Prof. GARBACZEWSKI, Piotr	20 min
12:30	14:00	Lunch break		
14:00	16:10	EPS SNPD Prize Award Session		
		What is Complexity?	Prof. GRASSBERGER, Peter	30 min
		A bird's eye view of Nonlinear Physics	Prof. PROCACCIA, Itamar	30 min
		Measuring effective temperatures in a Generalized Gibbs ensemble	Dr. FOINI, Laura	30 min
		Generic properties of stochastic entropy production	Dr. ROLDAN, Edgar	30 min
16:10	16:40	Coffee break		
16:40	17:45	EPL Session		
		The (random) matrix reloaded. Old tricks for new dogs - and return	Dr. VIVO, Pierpaolo	30 min
		Random matrices meet trapped fermions	Dr. SCHEHR, Gregory	30 min
17:45	20:00	Reception (sponsored by EPL)		

Thursday-08-09

		Thursday	08-09
15:30		Poster Session	
		Conference Dinner	

		Friday	08-09	
09:00	10:30	Session A		
		Individual and network heterogeneity in agent-based models	Prof. TORAL, Raul	30 min
		Coordination games on networks	Prof. KLECZKOWSKI, Adam	20 min
		Mean-potential law in evolutionary games	Prof. MIĘKISZ, Jacek	20 min
		Spin-glass-like transition in the majority vote model with contrarians	Dr. KRAWIECKI, Andrzej	20 min
09:00	10:20	Session B		
		A Boltzmann-Distribution-Equivalent for Levy Noise and How it Leads to Thermodynamically Consistent Epicatalysis	Prof. BIER, Martin	20 min
		Stochastic processes for fractional kinetics with application to anomalous diffusion in living cells	Dr. PAGNINI, Gianni	15 min
		Microscopic Derivation of Coloured Lévy Flights in Active Swimmers' Suspensions	Dr. CAIROLI, Andrea	15 min
		Second order optimization may lead to Lévy walks	Dr. KUSMIERZ, Lukasz	15 min
		Operational method for fractional Fokker-Planck equation	Dr. GORSKA, Katarzyna	15 min
09:00	10:30	Session C		
		Bottlebrush polymers: from dilute solutions to super-soft rubbers	Dr. PATUREJ, Jaroslaw	20 min
		Translational and rotational Brownian motion of particles of complex shapes	Prof. EKIEL-JEŻEWSKA, Maria L.	20 min
		Forces from Temperature Quenches in Thermal and Active Matter	Dr. ROHWER, Christian	20 min
		Dynamics of diluted confined systems	Dr. MALGARETTI, Paolo	15 min
		Temperature gradient induced solvent coarsening around colloids	Dr. MACIOLEK, Anna	15 min
10:30	11:00	Coffee break		

Friday-08-09

11:00	12:30			
		Guessing the direction of Time's Arrow: theory and experiment	Prof. JARZYNSKI, Christopher	30 min
		Eliminating Ensembles from Equilibrium Statistical Physics: Maxwell's Demon, Szilard's Engine, and Thermodynamics via Entanglement	Prof. ZUREK, Wojciech	30 min
		Microreversibility, current fluctuations, and entropy production in nonequilibrium systems	Prof. GASPARD, Pierre	30 min
		Closing remarks		