

International Conference on ΣΤΑΤΙΣΤΙΚΗ ΦΥΣΙΚΗ Chania-Crete-Greece 10-14 July 2023



2023

Topics and Format

The Conference is organized in the following three Areas to cover all the Topics of Statistical Physics:

Area A: Foundations and Theoretical aspects of classical, quantum and relativistic statistical physics and thermodynamics. Mathematical aspects and methods, formalism, rigorous results, exact solutions, connections with the methods of high energy physics, string theory, mathematical statistics and information theory, information geometry, classical, quantum and relativistic transport theory, Boltzmann and Fokker-Planck kinetics, nonlinear kinetics, dynamical systems, relaxation phenomena, random systems, pattern formation, fractal systems, solitons, chaotic systems, strongly correlated electrons, soft quantum matter, mesoscopic quantum phenomena, fractional quantum Hall effect, low dimensional quantum field theory, quantum phase transitions, quantum information and entanglement, power laws, stochastic optimal control.

Area B: Applications to Physical Systems: quantum systems, soft condensed matter, liquid crystals, plasmas, fluids, surfaces and interfaces, disordered and glassy systems, percolation, spin glasses, structural glasses, jamming, critical phenomena and phase transitions, fluids and interfacial phenomena, molecular and ionic fluids, metastable liquids, hydrodynamic instabilities, turbulence, growth processes, wetting, surface effects, films, crystals, confined systems, surfaces and interfaces, chemical reactions, cold atoms, etc.

Area C: Applications to non-Physical Systems: Interdisciplinary applications of statistical physics, networks and graphs, applied networks, biophysics, genomics, environments, climate and earth models, seismology, linguistics, econophysics, social systems, traffic flow, algorithmic problems, complex systems, nonlinear time-series analysis, novel data analysis tools, extreme events, tipping points, prediction, classification, etc.

Any area include several Sessions dealing with general aspects and applications.

Special sessions: Some special sessions within the thematic Area A will cluster talks dedicated to the following theoretical topics:
S1: Spin glass theory and beyond;
S2: Entropies and correlations in complex systems;
S3: Holographic and other cosmologically relevant entropies;
S4: Quantum Long-Range Systems.

Workshops: Some workshops will cluster talks dedicated to special applications of statistical physics in physical and non-physical systems and will be organized as parallel events.

Poster Sessions: The Conference will also include some poster sessions.

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Mantegna R. (University of Palermo, Italy)
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Martinovic M. (University of Arizona, USA)
Matsuzoe H. (Nagoya Institute of Technology, Japan)
McComas, D.J. (Princeton University, USA)
Mejia-Monasterio C. (Technical University of Madrid, Spain)
Mendes J.F. (University of Aveiro, Portugal)
Metzler R. (University of Postdam, Germany)
Modanese G. (Free University of Bolzano, Bolzano, Italy)
Mostacci D. (University of Bologna, Italy)
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Nowak M.A. (Jagiellonian University, Kraków, Poland)
Ohara A. (University of Fukui, Japan)
Oliveira F. (Universidade de Brasília, Brazil)
Orland H. (Institut de Physique Theorique, CEA-Saclay, France)
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Palasantzas G. (University of Groningen, Netherlands)
Paradisi P. (ISTI-CNR, Pisa, Italy)
Parisi G. (University "La Sapienza", Roma, Italy)
Petri G. (ISI Foundation, Torino, Italy)
Pierrard V. (Belgian Institute for Space Aeronomy, Brussels, Belgium)
Pietronero L. (University "La Sapienza", Roma, Italy)
Pincus P. (UCSB, Santa Barbara, USA)
Poledna S. (Int. Inst. Applied Systems Analysis, Laxenburg, Austria)
Poletini M. (University of Luxembourg, Luxembourg)
Prellberg T. (Queen Mary University of London, UK)
Provata A. (Nat. Cent. Scientific Res. "Demokritos", Athens, Greece)
Rapisarda A. (University of Catania, Italy)
Ritort F. (Universitat de Barcelona, Spain)
Ruppeiner G. (New College of Florida, USA)
Saad D. (University of Aston, UK)
Sahay A. (National Institute of Technology, Patna, India)
San Miguel M. (IFISC, CSIC-UIB, Palma de Mallorca, Spain)
Sarlis N. (National and Kapodistrian University of Athens, Greece)
Scala A. (ISC-CNR, University "La Sapienza", Roma, Italy)
Shimizu A. (The University of Tokyo, Japan)
Sourlas N. (École normale supérieure, France)
Spicka V. (Czech Academy of Sciences, Prague, Czech Republic)

Squartini T. (IMT School for Advanced Studies Lucca, Italy)
Sung J. (Chung-Ang University, Seoul, Korea)
Suyari H. (Chiba University, Japan)
Tadic B. (Jozef Stefan Institute, Ljubljana, Slovenia)
Takayasu, M. (Tokyo Institute of Technology, Japan)
Talbot J. (Université Pierre et Marie Curie, Paris, France)
Tanaka M. (Fukuoka University, Japan)
Telo da Gama M.M. (Universidade de Lisboa, Portugal)
Tessarotto M. (University of Trieste, Italy)
Thurner S. (Medical University of Vienna, Austria)
Trivellato B. (Politecnico di Torino, Italy)
Tuckerman L. (PMMH-ESPCI-CNRS, Paris, France)
Ván P. (Wigner Research Centre for Physics, Budapest, Hungary)
Wada T. (Ibaraki University, Japan)
Wio H.S. (IFISC, CSIC-UIB, Palma de Mallorca, Spain)
Włodarczyk Z. (University of Kielce, Poland)
Yeomans J. (Oxford University, UK)
Zagoskin A. (Loughborough University, UK)

Invited Speakers

Aharony A. (Tel Aviv University, Israel)
Barkai E. (Bar-Ilan University, Israel)
Beck C. (Queen Mary University, London, UK)
Bernaschi M. (IAC-CNR, Roma, Italy)
Bertotti M.L. (Free University of Bolzano, Bolzano, Italy)
Biham O. (The Hebrew University, Jerusalem, Israel)
Boccaletti S. (ISC-CNR, Sesto Fiorentino, Italy)
Boettcher S. (Emory University, Atlanta, US)
Campbell D.K. (Boston University, US)
Caruso F. (University of Florence, Italy)
Consolini G. (National Institute of Astrophysics, Italy)
Dasgupta C. (Indian Institute of Science, Bangalore, India)
Deo N. (University of Delhi, India)
Deutsch A. (Technische Universität Dresden, Germany)
Dandouras I. (IRAP / CNRS, Toulouse, France)
Dzifcakova E. (Czech Academy of Sciences, Czech Republic)
Ejehadi M.R. (Sharif University of Technology, Tehran, Iran)
Field T.R. (McMaster University, Ontario, Canada)
Fleishman G. (New Jersey Inst. of Technology, US)
Franosch T. (Universität Innsbruck, Austria)
Geisel T. (Max Planck Institute, Germany)
Gudowska-Nowak E. (Jagiellonian University, Krakow, Poland)
Gupta S. (Tata Institute of Fundamental Research, Mumbai, India)
Gupte N. (Indian Institute of Technology Madras, Chennai, India)
Hanel R. (Complexity Science Hub Vienna, Austria)
Hoshino M. (The University of Tokyo, Tokyo, Japan)
Hristopoulos D. (Technical University of Crete, Greece)
Hyeon C. (Korea Institute for Advanced Study, Seoul, Korea)
Imparato A. (Aarhus University, Belgium)
Jizba P. (Czech Technical University in Prague, Czech Republic)
Kosterlitz M. (Brown University, US)
Koszolowicz T. (Jan Kochanowski University, Kielce, Poland)
Kourakis Y. (Khalifa University, Abu Dhabi, United Arab Emirates)
Kovacs I. (Northwestern University, Illinois, US)
Kurths J. (PIK, Potsdam, Germany)
Leuzzi L. (NANOTEC-CNR, Roma, Italy)
Liang X.S. (Fudan University, Shanghai, China)
Livadiotis G. (Princeton University, US)
Livina V. (National Physical Laboratory, UK)
Löwen H. (Heinrich-Heine-Universität Düsseldorf, Germany)
Luczka J. (University of Silesia, Poland)
Ludescher J. (PIK, Potsdam, Germany)
Marder M. (University of Texas, Austin, US)
Marinari E. (University "La Sapienza", Italy)
Martin-Mayor V. (Universidad Complutense de Madrid, Spain)
Martinovic M. (University of Arizona, US)
Matsoukas T. (Pennsylvania State University, US)
Matsuzoe H. (Nagoya Institute of Technology, Japan)
McComas D.J. (Princeton University, US)
Mejia-Monasterio C. (Technical University of Madrid, Spain)
Metzler R. (University of Postdam, Germany)
Morozov A.V. (Rutgers University, US)
Motter A.E. (Northwestern University, US)
Nicolaou G. (University College London)
Odor G. (Res. Inst. Techn.I Physics and Materials Science, Hungary)
Oliveira F. (Universidade de Brasília, Brazil)
Park H. (Korea Institute for Advanced Study, Seoul, Korea)
Pierrard V. (Belgian Institute for Space Aeronomy, Belgium)
Pietronero L. (Fermi Center, Roma, Italy)
Podobnik B. (Zagreb School of Economics and Management, Zagreb)
Quevedo H. (Universidad Nacional Autónoma de México, México)
Reis F.A. (Universidade Federal Fluminense, Brazil)
Ricci-Tersengh F. (University "La Sapienza", Italy)
Rubi M. (University of Barcelona, Spain)
Ruppeiner G. (New College of Florida, US)
Saad D. (University of Aston, UK)
Saini N. (Guru Nanak Dev University, India)
Sarlis N. (National University of Athens, Greece)
Serrano M.A. (Universitat de Barcelona, Spain)
Shapoval A. (University of Lodz, Lodz, Poland)
Shimizu A. (The University of Tokyo, Japan)
Skokos H. (University of Cape Town, South Africa)
Sollich P. (Universität Göttingen, Germany)
Son C.Y. (Pohang University of Science and Technology, Republic of Korea)
Špička V. (Czech Academy of Sciences, Prague, Czech Republic)
Spiechowicz J. (University of Silesia, Poland)
Summers D. (Memorial University of Newfoundland, Canada)
Sung J. (Chung-Ang University, Seoul, Republic of Korea)
Sung J.B. (Sogang University, Seoul, Republic of Korea)
Tadic B. (Jozef Stefan Institute, Ljubljana, Slovenia)
Talbot J. (Université Pierre et Marie Curie, Paris, France)
Tempesta P. (Universidad Complutense de Madrid, Spain)
Tirnaki U. (Izmir Ekonomi Üniversitesi, Izmir, Turkey)
Tsallis C. (CBPF, Rio de Janeiro, Brazil)
Tsironis G. (University of Crete, Greece)
Venturi D. (UC Santa Cruz, US)
Wada T. (Ibaraki University, Japan)
Žuković M. (Pavol Jozef Šafárik University in Košice, Slovak Republic)