

Program Overview

Morning

	Sunday	Monday	Tuesday	Wednesday	Thursday
7:30		Registration			
7:45					
8:00					
8:15					
8:30					
8:45			Plenary <i>Danskin</i>	Plenary <i>Katzgraber</i>	Parallel Sessions
9:00		Welcome			
9:15		Plenary <i>Succi</i>	Plenary <i>Schulz</i>	Plenary <i>Young</i>	
9:30					
9:45					
10:00					
10:15		Break	Break	Break	Break
10:30					
10:45		Plenary <i>Okamoto</i>	Plenary <i>Sterling</i>	Plenary <i>Rothlisberger</i>	Plenary <i>Louie</i>
11:00					
11:15					
11:30		Plenary <i>Trivedi</i>	Plenary <i>Sexton</i>	Plenary <i>Granger</i>	Plenary <i>White</i>
11:45					
12:00					
12:15					
12:30					
12:45		Lunch	Lunch	Lunch	Lunch
13:00					
13:15					

Session and Event Locations

Plenary sessions are located in the [Large Ballroom](#).

The **poster session** is located in the [Small Ballroom](#), [Large Ballroom](#), and [Ziskind Lounge](#).

Breaks are located in the [Ziskind Lounge](#).

The **Welcome Reception** is located in the [Ziskind Lounge](#).

The **Banquet** is located in the [Trustee Center](#) (1 Silber Way, 9th floor, Ballroom).

Program Overview

Afternoon/Evening

	Sunday	Monday	Tuesday	Wednesday	Thursday			
13:30	Registration	Parallel Sessions	Parallel Sessions	Parallel Sessions	Plenary <i>Del Debbio</i>			
13:45						Plenary <i>Dave</i>		
14:00					Closing			
14:15						Break	Break	Break
14:30								
14:45								
15:00		Parallel Sessions	Parallel Sessions	Parallel Sessions				
15:15								
15:30								
15:45								
16:00								
16:15		Parallel Sessions	Parallel Sessions	Parallel Sessions				
16:30								
16:45								
17:00								
17:15								
17:30	Welcome Reception	Poster Session						
17:45								
18:00								
18:15								
18:30								
18:45								
19:00			Banquet Reception 18:30-19:00 Dinner 19:00-21:00					
19:15								
19:30								
19:45								
20:00								
20:15								
20:30								
20:45								

Overview of Parallel Sessions

Monday, Parallel Sessions 1, 13:30-15:15				
Auditorium	Small Ballroom	Terrace Lounge	East Balcony	Mugar 205
Materials Science	Soft Matter	Fluid Dynamics	Quantum Many-Body	
Monday, Parallel Sessions 2, 15:45-17:30				
Auditorium	Small Ballroom	Terrace Lounge	East Balcony	Mugar 205
Soft Matter	Statistical Physics	Fluid Dynamics	Computing Paradigms	

Tuesday, Parallel Sessions 1, 13:30-15:15				
Auditorium	Small Ballroom	Terrace Lounge	East Balcony	Mugar 205
Soft Matter	Statistical Physics	General	Quantum Many-Body	Lattice Field Theory
Tuesday, Parallel Sessions 2, 15:45-17:30				
Auditorium	Small Ballroom	Terrace Lounge	East Balcony	Mugar 205
Materials Science	Statistical Physics	Education	Computing Paradigms	Lattice Field Theory

Wednesday, Parallel Sessions 1, 13:30-15:15				
Auditorium	Small Ballroom	Terrace Lounge	East Balcony	Mugar 205
Materials Science	Statistical Physics	Astrophysics	Quantum Many-Body	
Wednesday, Parallel Sessions 2, 15:45-17:30				
Auditorium	Small Ballroom	Terrace Lounge	East Balcony	Mugar 205
Materials Science	Computing Paradigms	Quantum Computing	Education	

Thursday, Parallel Sessions, 8:30-10:15				
Auditorium	Small Ballroom	Terrace Lounge	East Balcony	Mugar 205
Materials Science	Soft Matter	Lattice Field Theory	Astrophysics	

Daily Schedules

Session Locations

Plenary sessions are located in the **Large Ballroom**.

The **poster session** is located in the **Small Ballroom, Large Ballroom, and Ziskind Lounge**.

Breaks are located in the **Ziskind Lounge**.

Monday, August 11

7:30-9:00	Registration
9:00-9:15	Welcome Anders Sandvik, <i>Chair of CCP2014</i> Robert Brown, <i>President of Boston University</i> Alex Hansen, <i>Chair of IUPAP's C20 Commission</i>
9:15-10:00	Plenary Session: Computational Physics 1 <i>Chair: Anders Sandvik</i> Sauro Succi, IAC-CNR (Italy) Lattice Boltzmann simulations of complex flows across scales: turbulence, soft-glasses and quark-gluon plasmas
10:00-10:30	Break
10:30-11:15	Plenary Session: Computational Physics 2 <i>Chair: David Coker</i> Yuko Okamoto, Nagoya University (Japan) Enhanced configurational sampling methods for spin systems and biomolecular systems
11:15-12:00	Nandini Trivedi, Ohio State University (USA) Topology and Correlations driving new materials, phases and phenomena
12:00-13:30	Lunch
13:30-15:15	Parallel Sessions 1 Materials Science and Nanoscience 1, <i>Conference Auditorium</i> Soft Matter and Biological Physics 1, <i>Small Ballroom</i> Fluid Dynamics 1, <i>Terrace Lounge</i> Quantum Many-Body Physics 1, <i>East Balcony</i>
15:15-15:45	Break
15:45-17:30	Parallel Sessions 2 Soft Matter and Biological Physics 2, <i>Conference Auditorium</i> Statistical Physics 1, <i>Small Ballroom</i> Fluid Dynamics 2, <i>Terrace Lounge</i> Novel Computing Paradigms 1, <i>East Balcony</i>
17:30-19:30	Poster Session

Monday, Parallel Sessions 1

Materials Science and Nanoscience 1	
Location: Conference Auditorium	
Chairperson: Volodymyr Turkowski	
13:30-14:00	Invited Talk: Markus Eisenbach , <i>Oak Ridge National Laboratory (USA)</i> , Magnetic Materials at nite Temperatures: thermodynamics and combined spin and molecular dynamics derived from first principles calculations
14:00-14:30	Invited Talk: Lin-lin Wang , <i>Ames Laboratory (USA)</i> , Computational Modeling of Transition-Metal Alloyed Nanoparticles in Working Condition
14:30-14:45	Hossein Mosallaei , <i>Northeastern University (USA)</i> , Novel Materials Enabled with Core-Shell Dielectric-Plasmonic Particles
14:45-15:00	Theodore Einstein , <i>Physics & CMTC, University of Maryland (USA)</i> , Characterizing Capture Zone Distributions (CZD) in Island Growth on Surfaces: Simulations Confront Experiments
15:00-15:15	Vlad Sokhan , <i>National Physical Laboratory (UK)</i> , Electronically coarse-grained simulations in materials science

Soft Matter and Biological Physics 1	
Location: Small Ballroom	
Chairperson: Joerg Rottler	
13:30-14:00	Invited Talk: Mark Robbins , <i>Johns Hopkins University (USA)</i> , Welding and healing of polymer interfaces: Strength from entanglements
14:00-14:30	Invited Talk: Marcus Mueller , <i>Georg-August-Universität, Institute for Theoretical Physics (Germany)</i> , Studying the kinetics of copolymer self-assembly
14:30-14:45	Alexander Wagner , <i>North Dakota State University (USA)</i> , Towards a computational modeling of structure formation in colloidal drying
14:45-15:00	Chandan Dasgupta , <i>Indian Institute of Science</i> , Complex Rheology of Nematogenic Fluids: Connection to Elastic Turbulence
15:00-15:15	Lampros Mountrakis , <i>University of Amsterdam (Netherlands)</i> , Looking into the transport of blood cells in flows without walls

Fluid Dynamics 1	
Location: Terrace Lounge	
Chairperson: Emily Ryan	
13:30-14:00	Invited Talk: Monika Nitsche , <i>University of New Mexico (USA)</i> , Vortex Shedding and Low Order Models
14:00-14:30	Invited Talk: George Karniadakis , <i>Brown University (USA)</i> , Microscopic theory of Brownian motion: Effects of memory and confinement
14:30-14:45	Alex Hansen , <i>Norwegian University of Science and Technology</i> , A Monte Carlo Algorithm for Immiscible Two-Phase Flow in Porous Media
14:45-15:00	Junxue Ren , <i>Wright State University (USA)</i> , PIC Algorithm with Multiple Poisson Equation Solves during One time Step
15:00-15:15	Nils Moschuering , <i>LMU Munich (Germany)</i> , Adaptive-Particle-Refinement for PIC Simulations

Quantum Many-Body Physics 1	
Location: East Balcony	Chairperson: Roger Melko
13:30-14:00	Invited Talk: Ribhu Kaul , <i>University of Kentucky (USA)</i> , Deconfined quantum criticality in SU(N) magnets
14:00-14:30	Invited Talk: Boris Svistunov , <i>University of Massachusetts, Amherst (USA)</i> , Diagrammatic Monte Carlo for Fermionic and Fermionized Systems
14:30-14:45	George Batrouni , <i>Institut Non-Linéaire de Nice, University of Nice (France)</i> , Competition between the Haldane insulator, superfluid and supersolid phases in the one-dimensional Bosonic Hubbard Model
14:45-15:00	Karine Piacentini Coelho da Costa , <i>University of Massachusetts, Amherst (USA); University of Sao Paulo (Brazil)</i> , Critical Exponents of the Superfluid-Bose-Glass Transition in Three Dimensions
15:00-15:15	Yu-cheng Lin , <i>National Chengchi University (Taiwan)</i> , Neel to valence-bond-solid phase transitions in correlated valence-bond states

Monday, Parallel Sessions 2

Soft Matter and Biological Physics 2	
Location: Conference Auditorium	Chairperson: Celeste Sagui
15:45-16:15	Invited Talk: Ivet Bahar , <i>University of Pittsburgh (USA)</i> , Structure-Encoded Dynamics of Proteins: Learning from Network Models and Experiments
16:15-16:45	Invited Talk: Normand Mousseau , <i>Université de Montréal (Canada)</i> , Computational challenges for the study of amyloid processes
16:45-17:00	Ming-cha Wu , <i>National Central University (Taiwan)</i> , Correlated vibrations in ion-pair dynamics in mechanoactivation identifies functional domains of force-dependent titin kinase
17:00-17:15	Christopher Roland , <i>North Carolina State University (USA)</i> , Investigating rare events with nonequilibrium work measurements: transition and reaction rates

Statistical Physics 1: Networks	
Location: Small Ballroom	Chairperson: Jonathan Machta
15:45-16:15	Invited Talk: Mark Newman , <i>University of Michigan (USA)</i> , Large-scale structure in networks
16:15-16:45	Invited Talk: Lenka Zdeborova , <i>CEA Saclay and CNRS (France)</i> , Module detection in networks: phase transitions and optimal algorithms
16:45-17:00	Lev Shchur , <i>Landau Institute for Theoretical Physics (Russia)</i> , Relation of Parallel Discrete Event Simulations algorithms with the physical models
17:00-17:15	Florent Krzakala , <i>Ecole Normale Supérieure (France)</i> , Belief-Propagation Guided Monte-Carlo Sampling
17:15-17:30	Bruce Boghosian , <i>Tufts University (USA)</i> , Asset exchange and the origin of Pareto's Law of wealth distribution

Monday, Parallel Sessions 2, continued

Fluid Dynamics 2	
Location: Terrace Lounge	
Chairperson: James Adler	
15:45-16:15	Invited Talk: Marc Gerritsma , <i>TU Delft (Netherlands)</i> , Structure preserving discretizations for computational physics
16:15-16:45	Invited Talk: Chun Liu , <i>Penn State University (USA)</i> , Energetic Variational Approaches in Complex Fluids
16:45-17:00	Christopher Amey , <i>University of Massachusetts, Amherst (USA)</i> , Persistent Patterns and Mixed Phase Space Dynamics
17:00-17:15	Blair Perot , <i>University of Massachusetts, Amherst (USA)</i> , Numerical Investigation of the Decay Rate of Isotropic Turbulence
17:15-17:30	Duncan McGregor , <i>Oregon State University (USA)</i> , Modelling Arcs in Magnetohydrodynamic Generator Channels

Novel Computing Paradigms 1	
Location: East Balcony	
Chairperson: Martin Berzins	
15:45-16:15	Invited Talk: Thomas Cheatham , <i>University of Utah (USA)</i> , Molecular dynamics simulation of nucleic acids: Convergence, reproducibility, assessment/validation, and data dissemination enabled by GPUs on XSEDE and Blue Waters
16:15-16:45	Invited Talk: Ying-jer Kao , <i>National Taiwan University</i> , Uni10: the Universal Tensor Network Library
16:45-17:00	Joshua Anderson , <i>University of Michigan (USA)</i> , Monte Carlo and Molecular Dynamics simulations of soft matter in the GPU era
17:00-17:15	Jens Glaser , <i>University of Michigan (USA)</i> , Strong Scaling of a Molecular Dynamics code on 1000's of GPUs
17:15-17:30	Hyun Lim , <i>South Dakota State University (USA)</i> , A Parallel Implementation of the Time-Decomposition Approach for the time-dependent Dirac Equation

Tuesday, August 12

8:30-9:15 9:15-10:00	<p>Plenary Session: Enabling Technologies for Computational Science 1 <i>Chair: Richard Brower</i> John Danskin, <i>NVIDIA</i> The Physics of Computation and GPU Architecture</p> <p>Karl Schulz, <i>Intel</i> Enabling Technology Trends in High Performance Computing</p>
10:00-10:30	Break
10:30-11:15 11:15-12:00	<p>Plenary Session: Enabling Technologies for Computational Science 2 <i>Chair: Norbert Attig</i> Thomas Sterling, <i>CREST, Indiana University (USA)</i> Computational Physics at Extreme Scale</p> <p>James Sexton, <i>IBM</i> A Vision for Data Centric Systems</p>
12:00-13:30	Lunch
13:30-15:15	<p>Parallel Sessions 1</p> <p>Soft Matter and Biological Physics 3, <i>Conference Auditorium</i> Statistical Physics 2, <i>Small Ballroom</i> General Computational Physics 1, <i>Terrace Lounge</i> Quantum Many-Body Physics 2, <i>East Balcony</i> Lattice Field Theory 1, <i>Mugar 205</i></p>
15:15-15:45	Break
15:45-17:30	<p>Parallel Sessions 2</p> <p>Materials Science and Nanoscience 2, <i>Conference Auditorium</i> Statistical Physics 3, <i>Small Ballroom</i> Computational Physics Education 1, <i>Terrace Lounge</i> Novel Computing Paradigms 2, <i>East Balcony</i> Lattice Field Theory 2, <i>Mugar 205</i></p>
18:30-21:00	<p>Banquet Dinner speech: Claudio Rebbi, <i>Boston University (USA)</i> The early days of the Division of Computational Physics</p>

Tuesday, Parallel Sessions 1

Soft Matter and Biological Physics 3	
Location: Conference Auditorium	Chairperson: Marcus Mueller
13:30-14:00	Invited Talk: Marina Guenza , <i>University of Oregon (USA)</i> , A coarse-graining method that preserves the free energy, structural correlations, and thermodynamic state of polymer melts from the atomistic to the mesoscale
14:00-14:30	Invited Talk: Celeste Sagui , <i>North Carolina State University (USA)</i> , Free energy methods for biomolecular simulations
14:30-14:45	Thomas Salez , <i>(CNRS / ESPCI)</i> , A direct quantitative measure of surface mobility in a glassy polymer
14:45-15:00	Guangjie Shi , <i>University of Georgia (USA)</i> , Protein Folding of the HOP Model: A Parallel Wang-Landau Study

Tuesday, Parallel Sessions 1, continued

Statistical Physics 2: Jamming, Hard Spheres	
Location: Small Ballroom	Chairperson: Alex Hansen
13:30-14:00	Invited Talk: Werner Krauth , <i>ENS Paris (France)</i> , Rejection-free, Irreversible, and Infinitesimal Monte Carlo Algorithms and Melting in two dimensions
14:00-14:30	Invited Talk: Salvatore Torquato , <i>Princeton University (USA)</i> , New Algorithm to Generate Jammed Sphere Packings
14:30-14:45	Masaharu Isobe , <i>Nagoya Institute of Technology (Japan)</i> , Nucleation of Hard Spheres in local Monte Carlo, Event-Chain Monte Carlo, and Molecular Dynamics
14:45-15:00	Chandan Dasgupta , <i>Indian Institute of Science</i> , Short-time relaxation in glass-forming liquids from dynamics in a meta-basin of the potential energy landscape
15:00-15:15	Ronald Dickman , <i>Universidade Federal de Minas Gerais (Brazil)</i> , Inconsistencies in steady state thermodynamics

General Computational Physics 1	
Location: Terrace Lounge	Chairperson: Jan Tobochnik
13:30-13:45	Panos Argyrakis , <i>University of Thessaloniki (Greece)</i> , Network of the FP7 collaboration projects
13:45-14:00	Larry Engelhardt , <i>Francis Marion University (USA)</i> , Quantum spin simulations made simple
14:00-14:15	Guiping Zhang , <i>Renmin University of China</i> , Effects of contact and strain on electronic transport properties of graphene: exact and renormalized transfer matrix method
14:15-14:30	Zine El Abidine Chaoui , <i>University of Setif (Algeria)</i> , An optimized analytic model for charged particle transport in water
14:30-14:45	Nikita Kirnosov , <i>University of Arizona (USA)</i> , Non-BO calculations of rovibrational states of systems with Coulomb interactions using explicitly correlated all-particle Gaussian functions
14:45-15:00	Mitsuyoshi Tomiya , <i>Seikei University (Japan)</i> , Scar State on Time-evolving Wavepacket
15:00-15:15	Joan Adler , <i>Technion (Israel)</i> , Efficient simulated annealing of segmented telescopes by invoking their analogy with SOS models

Quantum Many-Body Physics 2	
Location: East Balcony	Chairperson: Chisa Hotta
13:30-14:00	Invited Talk: Federico Becca , <i>National Council for Research (CNR) and SISSA (Italy)</i> , Variational wave functions for strongly-correlated models
14:00-14:30	Invited Talk: Philippe Corboz , <i>Institute for Theoretical Physics, University of Amsterdam (Netherlands)</i> , Recent progress in simulating strongly correlated systems with tensor network methods
14:30-14:45	Roger Melko , <i>University of Waterloo (Canada)</i> , Quantum Kagome Ice
14:45-15:00	Wenan Guo , <i>Beijing Normal University (China)</i> , Novel quantum glass of bosons in a random potential in two dimensions
15:00-15:15	Thomas Lang , <i>Boston University (USA)</i> , Mott Transitions of Correlated Fermions from SU(2) to SU(N)

Lattice Field Theory 1	
Location: Mugar 205	Chairperson: Claudio Rebbi
13:30-14:00	Invited Talk: Taku Izubuchi , <i>RIKEN BNL Research Center (USA)</i> , Lattice QCD calculations for particle physics
14:00-14:30	Invited Talk: Aida El-Khadra , <i>University of Illinois (USA)</i> , Lattice QCD and Quark Flavor Physics
14:30-14:45	Steven Gottlieb , <i>Indiana University (USA)</i> , Electromagnetic effects of the light hadron spectrum
14:45-15:00	Oliver Witzel , <i>Boston University (USA)</i> , Lattice-QCD determination of B-meson decay constants and semileptonic form factors
15:00-15:15	Stefan Krieg , <i>Forschungszentrum Juelich (Germany)</i> , From quarks to hadrons and back: spectral and bulk properties of strongly interacting matter from Lattice QCD

Tuesday, Parallel Sessions 2

Materials Science and Nanoscience 2	
Location: Conference Auditorium	Chairperson: Theodore L Einstein
15:45-16:15	Invited Talk: Hsin Lin , <i>Graphene Research Centre and Department of Physics, National University of Singapore</i> , Topological Crystalline Insulators: A New Phase of Quantum Matter
16:15-16:30	Zenan Qi , <i>Boston University (USA)</i> , Strain Engineering of Graphene Hexagon and Nanobubbles
16:30-16:45	Vladimir Stegailov , <i>JIHT RAS (Russia)</i> , Graphite melting: atomistic kinetics resolves long-standing controversy
16:45-17:00	Jenni Portman , <i>Michigan State University (USA)</i> , Evidence of stacking disorder induced gap opening in the ground state of 1T-TaS ₂
17:00-17:15	Hiroaki Nakamura , <i>National Institute for Fusion Science (Japan)</i> , A Binary-Collision-Approximation Simulation Study on the Dependence of Noble Gas Absorption upon Crystal Orientation of Tungsten

Tuesday, Parallel Sessions 2, continued

Statistical Physics 3: Spin Models	
Location: Small Ballroom	
Chairperson: Lev Shchur	
15:45-16:15	Invited Talk: Youjin Deng , <i>University of Science & Technology of China</i> , Universal amplitudes in the canonical ensemble
16:15-16:30	Pablo Serna , <i>University of Murcia (Spain)</i> , Loop models with crossings
16:30-16:45	Patrick Malsom , <i>University of Cincinnati (USA)</i> , The limitations of the Onsager-Machlup functional
16:45-17:00	Wolfhard Janke , <i>University of Leipzig (Germany)</i> , Non-Standard Finite-Size Scaling at First-Order Phase Transition
17:00-17:15	Edyta Malolepsza , <i>Boston University (USA)</i> , Generalized ensemble method applied to study systems with strong first order transition

Computational Physics Education 1	
Location: Terrace Lounge	
Chairperson: Wolfgang Christian	
15:45-16:15	Invited Talk: Ruth Chabay , <i>North Carolina State University (USA)</i> , Computation and Conceptual Understanding in Introductory Physics
16:15-16:45	Invited Talk: Francisco Esquembre , <i>Universidad de Murcia (Spain)</i> , Facilitating programming computational physics simulations for tablets
16:45-17:15	Invited Talk: Beate Schmittmann , <i>Iowa State University (USA)</i> , K-12 outreach and student recruitment with computational science
17:15-17:30	Jan Tobochnik , <i>Kalamazoo College (USA)</i> , The Computational Physics Section of the American Journal of Physics

Novel Computing Paradigms 2	
Location: East Balcony	
Chairperson: Thomas Cheatham	
15:45-16:15	Invited Talk: Martin Berzins , <i>University of Utah (USA)</i> , Multiscale and Multiphysics Computations on Present and Future Architectures
16:15-16:45	Invited Talk: Erik Schnetter , <i>Perimeter Institute (Canada)</i> , Automated Code Generation for Solving PDEs on Modern HPC Architectures
16:45-17:00	Xavier Saez , <i>Barcelona Supercomputing Center (Spain)</i> , First experience with Particle-in-cell Plasma Physics code on ARM-based HPC systems
17:00-17:15	Elise de Doncker , <i>Western Michigan University (USA)</i> , Scalable Software for Multivariate Integration on Hybrid Platforms
17:15-17:30	Yasunari Zempo , <i>Hosei University (Japan)</i> , Real-Time and Real-Space Program Tuned in K-Computer

Lattice Field Theory 2	
Location: Mugar 205	Chairperson: Richard Brower
15:45-16:15	Invited Talk: John Negele , <i>Massachusetts Institute of Technology (USA)</i> , Understanding the Structure of Nucleons using Lattice QCD
16:15-16:45	Invited Talk: William Detmold , <i>MIT (USA)</i> , Dark Nuclei
16:45-17:00	Sergey Syritsyn , <i>RIKEN BNL Research Center (USA)</i> , Nucleon Structure on a Lattice at the Physical Point
17:00-17:15	Venkitesh Ayyar , <i>Duke University (USA)</i> , Semimetal-Insulator transition without a fermion bilinear condensate

Wednesday, August 13

8:30-9:15	Plenary Session: Computational Physics 3 <i>Chair: Wolfhard Janke</i> Helmut Katzgraber , <i>Texas A&M University (USA)</i> Four decades of frustration in spin-glass physics: Advances and applications
9:15-10:00	A. Peter Young , <i>University of California, Santa Cruz (USA)</i> Numerical Studies of the Quantum Adiabatic Algorithm
10:00-10:30	Break
10:30-11:15	Plenary Session: Computational Physics 4 <i>Chair: David Campbell</i> Ursula Rothlisberger , <i>Ecole Polytechnique Federale de Lausanne (Switzerland)</i> Mixed Quantum Mechanical/Molecular Mechanical (QM/MM) Simulations of Biological Systems: From Understanding to Control
11:15-12:00	Brian Granger , <i>California Polytechnic State University (USA)</i> Open source tools for exploratory and reproducible computational physics
12:00-13:30	Lunch
13:30-15:15	Parallel Sessions 1 Materials Science and Nanoscience 3, <i>Conference Auditorium</i> Statistical Physics 4, <i>Small Ballroom</i> Astrophysics 1, <i>Terrace Lounge</i> Quantum Many-Body Physics 3, <i>East Balcony</i>
15:15-15:45	Break
15:45-17:30	Parallel Sessions 2 Materials Science and Nanoscience 4, <i>Conference Auditorium</i> Novel Computing Paradigms 3, <i>Small Ballroom</i> Quantum Computing 1, <i>Terrace Lounge</i> Computational Physics Education 2, <i>East Balcony</i>

Wednesday, Parallel Sessions 1

Materials Science and Nanoscience 3	
Location: Conference Auditorium	Chairperson: Markus Eisenbach
13:30-14:00	Invited Talk: Caterina Cocchi , <i>Humboldt-Universität zu Berlin (Germany)</i> , From Molecules to Organic Crystals: Optical Excitations from First Principles
14:00-14:15	Rodion Belosludov , <i>IMR, Tohoku University (Japan)</i> , Computation Modelling of Thermodynamic Properties of Nanoporous Materials toward Gas Storage and Separation
14:15-14:30	Stephanie Valleau , <i>Harvard University (USA)</i> , Electromagnetic study of the chlorosome antenna complex of <i>Chlorobaculum tepidum</i>
14:30-14:45	Huan Tran , <i>University of Connecticut (USA)</i> , Designing Organotin Polymers For Energy Storage Applications
14:45-15:00	Sahar Sharifzadeh , <i>Boston University (USA)</i> , Understanding the Photophysical Properties of Organic Polycrystalline Films
15:00-15:15	Ilnur Saitov , <i>Joint Institute for High Temperatures (Russia)</i> , First principle calculation of shocked xenon reflectivity

Statistical Physics 4: Spin Models	
Location: Small Ballroom	Chairperson: Wolfhard Janke
13:30-14:00	Invited Talk: Koji Hukushima , <i>University of Tokyo (Japan)</i> , Equilibrium-state simulations of some (spin) glass models in finite dimensions
14:00-14:15	Wenlong Wang , <i>University of Massachusetts, Amherst (USA)</i> , Population annealing Monte Carlo: An effective simulation for spin glasses
14:15-14:30	Tasrief Surungan , <i>Hasanuddin University (Indonesia)</i> , Spin glass behavior of the antiferromagnetic Heisenberg model on scale free network
14:30-14:45	Elmar Bittner , <i>ITP, Heidelberg University (Germany)</i> , MuCa vs WL: A tight race
14:45-15:00	Alexandra Valentim , <i>Universidade Federal do Paraná (Brazil)</i> , Exploring Replica-Exchange Wang-Landau sampling in higher-dimensional parameter space
15:00-15:15	Raul Toral , <i>Institute for Cross-Disciplinary Physics and Complex Systems (Spain)</i> , Weighted-ensemble Brownian dynamics simulation: Sampling of rare events in non-equilibrium systems

Astrophysics 1: Cosmology and Galaxy Formation	
Location: Terrace Lounge	Chairperson: Romeel Davé
13:30-14:00	Invited Talk: Mike Boylan-Kolchin , <i>University of Maryland (USA)</i> , The Local Universe as a Dark Matter Laboratory
14:00-14:30	Invited Talk: Claude-andre Faucher-Giguere , <i>Northwestern/CIERA (USA)</i> , The Universe on a computer: Cosmological simulations of galaxy formation
14:30-14:45	Claudio Gheller , <i>CSCS (Switzerland)</i> , Numerical cosmology on the GPU with Enzo and Ramses
14:45-15:00	Robert Hohlfeld , <i>Boston University (USA)</i> , Instability of Counterrotating Flow in an Astrophysical Disk
15:00-15:15	Ke-jung Chen , <i>University of California, Santa Cruz (USA)</i> , Cosmic Impact of the First Binaries

Quantum Many-Body Physics 3	
Location: East Balcony	Chairperson: Adrian Feiguin
13:30-14:00	Invited Talk: Tao Xiang , <i>Institute of Physics, Chinese Academy of Sciences (China)</i> , Renormalization of quantum many-body systems by the projected entangled simplex states
14:00-14:30	Invited Talk: Corinna Kollath , <i>University of Bonn (Germany)</i> , Spreading of correlations in strongly correlated (dissipative) quantum gases
14:30-14:45	Chisa Hotta , <i>University of Tokyo (Japan)</i> , Grand canonical analysis in one and two dimension: A route to measuring bulk properties in an applied field
14:45-15:00	Adrian Del Maestro , <i>University of Vermont (USA)</i> , A quantum Monte Carlo method to compute entanglement entropies of interacting bosons in the spatial continuum
15:00-15:15	Edwin Stoudenmire , <i>Perimeter Institute (Canada)</i> , Corner Contributions to Entanglement Entropy in Critical Systems

Wednesday, Parallel Sessions 2

Materials Science and Nanoscience 4	
Location: Conference Auditorium	Chairperson: Lin-lin Wang
15:45-16:15	Invited Talk: Volodymyr Turkowski , <i>University of Central Florida (USA)</i> , Development and application of DFT+DMFT and TDDFT+DMFT techniques for nanosystems
16:15-16:30	Kenichi Asano , <i>Osaka University (Japan)</i> , Trions and Biexcitons in Semiconducting Single-Wall Carbon Nanotubes
16:30-16:45	Georgios Tritsarlis , <i>Harvard University (USA)</i> , On the possibility of photocatalytic water splitting on rutile TiO ₂ (110): a theoretical study
16:45-17:00	David A. Strubbe , <i>Massachusetts Institute of Technology (USA)</i> , Photoisomerization dynamics of solar thermal fuels with TDDFT excited-state forces
17:00-17:15	Iskakova Kulpash , <i>Kazakh National Pedagogical University (Kazakhstan)</i> , The modeling of the energy levels GaAs
17:15-17:30	Bin Hwang , <i>Michigan State University (USA)</i> , Effective transient states for nonequilibrium systems under ultrafast control pulses

Wednesday, Parallel Sessions 2, continued

Novel Computing Paradigms 3	
Location: Small Ballroom	
Chairperson: Ying-Jer Kao	
15:45-16:15	Invited Talk: Norbert Attig , <i>Julich Supercomputing Centre (Germany)</i> , The Path to Exascale: A European Perspective
16:15-16:45	Invited Talk: Lars Korsterke , <i>Texas Advanced Computing Center (USA)</i> , Heterogeneous computing. What is it and do we need it?
16:45-17:00	Feng Chen , <i>Brown University (USA)</i> , GPU Spectral Method and Stable Parareal Method for Large-scale Computational Science
17:00-17:15	Patrick Dreher , <i>North Carolina State University (USA)</i> , Proof of Concept Implementation of a Cloud Computing Infrastructure within a Supercomputer Architecture

Quantum Computing 1	
Location: Terrace Lounge	
Chairperson: Edward Farhi	
15:45-16:15	Invited Talk: David Clader , <i>Johns Hopkins University (USA)</i> , Preconditioned quantum linear system algorithm
16:15-16:45	Invited Talk: Bryan Clark , <i>University of Illinois at Urbana Champaign (USA)</i> , The cost of simulating quantum mechanics on a quantum computer
16:45-17:15	Invited Talk: Boixo Sergio , <i>Google (USA)</i> , Experiments with the DWave prototype
17:15-17:30	Jonathan Moussa , <i>Sandia National Labs (USA)</i> , Maximum entropy quantum simulation

Computational Physics Education 2	
Location: East Balcony	
Chairperson: Harvey Gould	
15:45-16:15	Invited Talk: Spencer Wheaton , <i>University of Cape Town (South Africa)</i> , Infusing Computational Physics throughout the Undergraduate Curriculum
16:15-16:45	Invited Talk: Shobhana Narasimhan , <i>Jawaharlal Nehru Centre for Advanced Scientific Research (India)</i> , Teaching Density Functional Theory through Experiential Learning: Examples from the Developing World
16:45-17:00	Wolfgang Christian , <i>Davidson College (USA)</i> , Parallel Programming Using Easy Java Simulations
17:00-17:15	Rachele Dominguez , <i>Randolph-Macon College (USA)</i> , The role of computational physics in the liberal arts curriculum
17:15-17:30	Werner Krauth , <i>ENS Paris (France)</i> , Statistical Mechanics: Algorithms and Computations - A High-Level Massive Open Online Course (2014)

Thursday, August 14

8:30-10:15	Parallel Sessions Materials Science and Nanoscience 5, <i>Conference Auditorium</i> Soft Matter and Biological Physics 4, <i>Small Ballroom</i> Lattice Field Theory 3, <i>Terrace Lounge</i> Astrophysics 2, <i>East Balcony</i>
10:15-10:30	Break
10:30-11:15	Plenary Session: Computational Physics 5 <i>Chair: Arun Bansil</i> Steven Louie , <i>University of California, Berkeley; Lawrence Berkeley National Lab (USA)</i> GW-based Methods for ab initio Studies of Electronic Excited-State Phenomena in Condensed Matter
11:15-12:00	Steven White , <i>University of California, Irvine (USA)</i> Solving frustrated magnetic systems with the density matrix renormalization group
12:00-13:30	Lunch
13:30-14:15	Plenary Session: Computational Physics 6 <i>Chair: Claudio Rebbi</i> Luigi Del Debbio , <i>University of Edinburgh (UK)</i> Recent progress in simulations of gauge theories on the lattice: QCD at the physical point and new strongly-interacting dynamics beyond the Standard Model
14:15-15:00	Romeel Davé , <i>University of the Western Cape (South Africa)</i> Simulations of Galaxy Formation
15:00-15:15	Closing

Thursday, Parallel Sessions 1

Materials Science and Nanoscience 5	
Location: Conference Auditorium	Chairperson: Hsin Lin
8:30-9:00	Invited Talk: Luca Ghiringhelli , <i>Fritz Haber Institute of the Max Planck Society (Germany)</i> , Big Data of Materials Science —Critical Role of the Descriptor
9:00-9:15	Van An Dinh , <i>Osaka University (Japan)</i> , Origin of ferromagnetism in GaMnAs: A hybrid density functional study
9:15-9:30	Tiago de Campos , <i>Universidade de São Paulo (Brazil)</i> , Diagonalization of very large dense electronic structure matrices: an out-of-core iterative method
9:30-9:45	Qiao-neng Guo , <i>Zhengzhou University (China)</i> , Temperature dependence of tensile properties of nano-Cu films: Molecular dynamics simulation
9:45-10:00	Xavier Andrade , <i>Harvard University (USA)</i> , Application of compressed sensing to electronic structure simulations

Thursday, Parallel Sessions 1, continued

Soft Matter and Biological Physics 4	
Location: Small Ballroom	
Chairperson: Alfredo Alexander-Katz	
8:30-8:45	Shanadeen Begay , <i>Boston University (USA)</i> , The Thermodynamics and Structure of Methionine Enkephalin using the Statistical Temperature Molecular Dynamics-CHARMM algorithm
8:45-9:00	Christopher Cooper , <i>Boston University (USA)</i> , Implicit-solvent model using Python and GPUs for proteins interacting with charged surfaces
9:00-9:15	Zhenlu Cui , <i>Fayetteville State University (USA)</i> , Mesoscale structures and Rheology of Active Liquid Crystals
9:15-9:30	Amandeep Sangha , <i>UT/ORNL Center for Molecular Biophysics (USA)</i> , Lignin polymerization in plant cell walls: Monolignol binding, oxidation and radical coupling reactions
9:30-9:45	Nikolaos Papadimitriou , <i>National Center for Scientific Research "Demokritos" (Greece)</i> , Study of Ceramide Bilayers with Molecular Dynamics Simulations

Lattice Field Theory 3	
Location: Terrace Lounge	
Chairperson: Anna Hasenfratz	
8:30-9:00	Invited Talk: Simon Catterall , <i>Syracuse University (USA)</i> , Supersymmetry on a lattice
9:00-9:30	Invited Talk: Frithjof Karsch , <i>Brookhaven National Laboratory (USA)</i> , Conserved charge fluctuations in strong interaction matter
9:30-9:45	Evan Weinberg , <i>Boston University (USA)</i> , Targeting the Conformal Window: Measuring the O_{++} Scalar
9:45-10:00	Rajamani Narayanan , <i>Florida International University (USA)</i> , Polyakov loops in two dimensional QCD

Astrophysics 2: Compact Objects and Gravitational Waves	
Location: East Balcony	
Chairperson: Mike Boylan-Kolchin	
8:30-9:00	Invited Talk: Christian David Ott , <i>Caltech (USA)</i> , Petascale Simulations of Core-Collapse Supernovae
9:00-9:30	Invited Talk: Deirdre Shoemaker , <i>Georgia Tech (USA)</i> , Numerical Relativity and Gravitational Waves
9:30-9:45	Hyun Lim , <i>South Dakota State University (USA)</i> , A Time Parallellizable Numerical Approach for the Semilinear Wave Equation
9:45-10:00	R K Chhajlani , <i>Vikram University (India)</i> , Self-gravitational Instability in Interstellar Molecular Clouds with polarized dust and neutral collisions

Poster Session

Monday, 17:30-19:30

1	Statistical Physics (Ziskind Lounge)
1	Lukas Einkemmer , <i>University of Innsbruck (Austria)</i> , A Hamiltonian splitting for the Vlasov-Maxwell system
2	Adriana Gomes Dickman , <i>Pontifícia Universidade Católica de Minas Gerais (Brazil)</i> , Simulation of an epidemic model with vector transmission
3	Lucila Alvarez Zuzek , <i>IFIMAR-CONICET (Argentina)</i> , Theory and simulations of Epidemics in partially overlapped Multiplex Networks
4	Sitangshu Bikas Santra , <i>Indian Institute of Technology Guwahati</i> , Random rotational sandpile model: Crossover from rotational to stochastic universality class
5	Amin Najafi , <i>Islamic Azad University (Iran)</i> , The study of Binder Cumulant's behavior in two-dimensional anisotropic of Ising models with foreign-neighbor interactions by SAPBC method
6	Gonzalo Suarez , <i>IFIMAR-CONICET (Argentina)</i> , Transport with hard-core interaction in a chain of asymmetric cavities.
7	Ronald Dickman , <i>Universidade Federal de Minas Gerais (Brazil)</i> , Intrinsic convergence properties of entropic sampling algorithms
8	Zhenjiu Wang , <i>Beijing Normal University (China)</i> , Phase transitions in A nonlinear XY model with symmetry-breaking field in two dimensions
9	Manabu Hasegawa , <i>University of Tsukuba (Japan)</i> , Functionality limit of classical simulated annealing
10	Henio Rego , <i>CPS/Boston University and IFMA (USA)</i> , Percolation-Like Complexity in a 2 Dimensional Long Range SIR O-Lattice Model
11	Antonina Fedorova; Michael Zeitlin , <i>IPME RAS (Russia)</i> , Pattern Formation: From Local Hidden Symmetries to Global Dynamics
12	Atsunari Katsuki , <i>Nihon University (Japan)</i> , Numerical simulation of dune morphology deformed by multiple flow conditions
13	Altan Allawala , <i>Brown University (USA)</i> , Equal-time PDF of the stochastically forced Lorenz-63 attractor using a Fokker-Planck description
14	Zheng Zhu; Andrew Ochoa , <i>Texas A&M University (USA)</i> , Efficient sampling of ground-state configurations for quasi-two-dimensional Ising spin glasses
15	Nagendra Panduranga , <i>Boston University (USA)</i> , k-Core percolation in interdependent networks
16	Na Xu , <i>Boston University (USA)</i> , Dynamics of 2D Ising Model in linearly varying magnetic field
17	Bolun Chen , <i>Boston College (USA)</i> , Scaling of spiking neural network for mammalian olfaction
18	Alejandro Lage Castellanos , <i>Universidad de la Habana (Cuba)</i> , Bayesian inference of epidemics on networks via Belief Propagation
19	Alejandro Lage Castellanos , <i>Universidad de la Habana (Cuba)</i> , Region graph approximations to free energy in finite dimensional spin glasses.

2 Soft Matter and Biological Physics (Ziskind Lounge)	
1	Shourjya Sanyal , <i>University College Dublin (Ireland)</i> , Simulations On The Designing Rationale of FRET Based Uni-Molecular Probes
2	Amid Ranjkesh Siahkal , <i>University of Maribor (Slovenia)</i> , Computer simulation of domain patterns in randomly perturbed Nematic liquid crystal
3	Emine Deniz Tekin , <i>University of Turkish Aeronautical Association (Turkey)</i> , Molecular Dynamics Simulation of Self-Assembled Peptide-Amphiphiles
4	Freddie Salsbury , <i>Wake Forest University (USA)</i> , All-atom GPU-enabled simulations of therapeutic nucleic acids and their effects on DNA-binding proteins
5	Julio Rocha , <i>UFMG (Brazil)</i> , Identifying transitions in finite systems by means of partition function zeros and microcanonical inflection-point analysis: A comparison for elastic flexible polymers
6	Danh-Tai Hoang , <i>Asia Pacific Center for Theoretical Physics (Korea)</i> , Conserved rule for pancreatic islet organization
7	Muhammad Anwar , <i>University of Luxembourg</i> , Crystallization mechanism in melts of short polymer chains
8	Sarra Douah , <i>Université des Sciences et de la Technologie d'Oran (Algeria)</i> , Partition function zeros for semi-flexible homopolymers
9	Shuhei Kawamoto , <i>Temple University (USA)</i> , Free energy analysis of membrane fusion
10	Abdiravuf Dzhurakhalov , <i>University of Antwerp (Belgium)</i> , Monte Carlo parameterization in the VirtualLeaf framework
11	Rui Travasso , <i>University of Coimbra (Portugal)</i> , Validity of the contact order-rate correlation in the folding of small, single domain proteins: A Monte Carlo simulation
12	Busara Pattanasiri , <i>University of Georgia (USA)</i> , Effect of surface attractive strength on structural transitions of a confined HP lattice protein
13	N. Atamas , <i>National Kyiv Taras Shevchenko University (Ukraine)</i> , Study of ionic liquids+aromatic mono-substituted benzene strongly diluted solutions by molecular dynamics at $t = 400k$
14	Amir Azadi , <i>University of Massachusetts Amherst (USA)</i> , Emergent structure of multi-dislocation ground states in curved crystals
15	Kang Liu , <i>Boston University (USA)</i> , Physiologic Networks: Topological and Functional Transitions
16	Ronny Bartsch , <i>Boston University (USA)</i> , Phase Synchronization and co-existing forms of non-linear coupling between physiologic systems
17	Kristina Streu , <i>Boston College (USA)</i> , Stability of stapled p53 peptides bound to MDM2
18	Johannes Bock , <i>University Leipzig ITP (Germany)</i> , Semi-flexible polymers in disordered media
19	Alemayehu Mengesha Cherkos , <i>Instituto Superioro Tecnico (Portugal)</i> , Effect of viscosity on Propagation of MHD Waves in Astrophysical Plasma
20	Sumantra Sarkar , <i>Brandeis University (USA)</i> , Shear Induced Rigidity in Athermal Solids
21	Yoelvis Orozco-Gonzalez , <i>BGSU/USP (USA)</i> , Implementation of the free energy gradient to the geometry optimization of molecular systems in complex environments
22	Md Zulfikar Ali , <i>Clark University (USA)</i> , In silico evolution of biochemical networks

3 Materials Science and Nanoscience (Small Ballroom)	
1	Victoria Mazalova , <i>Southern Federal University (Russia)</i> , The combined XANES and DFT approach for study of nanomaterials.
2	Edwin Mapasha , <i>University of Pretoria (South Africa)</i> , Van der Waals Density Functional Study Of Lithium on Bilayer Graphene
3	Sergei Zakharchenko , <i>Moscow Institute of Physics and Technology (Russia)</i> , Algorithm of Shaping Multiple-beam Bragg's Acousto-optic Diffraction Laser Field Into 1D and 2D Patterns
4	Seiki Saito , <i>Kushiro National College of Technology (Japan)</i> , Study on Hydrogen Plasma - Carbon Material Interaction by Molecular Simulation in Submicron Scale
5	Yang Han , <i>Nanjing University (China)</i> , Electronic and Magnetic Properties of One and Two Dimensional Monolayer MoS ₂ with Sulfur Line Defect
6	Esam Abdul-Hafidh , <i>Royal Commission (Saudi Arabia)</i> , Modulus of Spherical Palladium Nanoparticles by Chen-Mobius Lattice Inversion Method
7	Alexander Popov , <i>Lomonosov Moscow State University (Russia)</i> , Multiscale simulation of thermal disruption in resistance switching process in amorphous carbon
8	Yasunari Zempo , <i>Hosei University (Japan)</i> , Development of the SSPH Method for Real-Space Electronic Structure Calculation
9	Andrey Baranov , <i>Moscow Institute of Physics and Technology (Russia)</i> , Eigen Frequency Piezoelectric Resonance Modes in Terms of Longitudinal Temperature Gradient Stimulated by Second Harmonic Generation
10	Stylianos Karozis , <i>National Center for Scientific Research "Demokritos" (Greece)</i> , A non-stochastic computational approach for the determination of the surface area of microporous solids
11	Tom Underwood , <i>University of Edinburgh (UK)</i> , Which crystal structure? Lattice-switch Monte Carlo can tell you
12	Zenan Qi , <i>Boston University (USA)</i> , Highly Ductile Graphene Kirigami
13	George Lithoxoos , <i>National Center for Scientific Research "Demokritos" (Greece)</i> , Determination of partial charges in inorganic-organic clusters based on DFT calculations
14	Katsuhiko Higuchi , <i>Hiroshima University (Japan)</i> , Electronic structure calculations for materials immersed in a uniform magnetic field via the relativistic tight-binding approximation method
15	Grigory Kolesov , <i>Harvard University (USA)</i> , Methoxy photo-dissociation on TiO ₂ surface: ab initio excited-state dynamics
16	Nicolas Sawaya , <i>Harvard University (USA)</i> , Computational Design of Excitonic Structures with DNA: Beyond Förster Resonance Energy Transfer
17	Khellil Bouamama , <i>University Setif 1 (Algeria)</i> , Ab-initio calculation of the structural and elastic properties of ternary metal nitrides TaxMo1-xN and TaxW1-xN
18	Nikolaos Papadimitriou , <i>National Center for Scientific Research "Demokritos" (Greece)</i> , Evaluation of the Efficiency of Clathrate Hydrates in Storing Energy Gases
19	Asanka Weerasinghe , <i>University of Massachusetts Amherst (USA)</i> , Multiphonon Raman scattering in monolayer WSe ₂
20	Seyedeh Nazanin Khatami , <i>University of Massachusetts Amherst (USA)</i> , Optimizing Si _{1-x} GexSi _{1-y} Ge _y Superlattices for Thermoelectric Efficiency by Minimizing thermal Conductivity
21	Sanjay Kumar Singh , <i>Jiwaji University (India)</i> , Investigation of high pressure phase transition and electronic properties of Lutetium Nitride

3 <i>Materials Science and Nanoscience, continued</i>	
22	Genri Norman , <i>JIHT RAS (Russia)</i> , On the difference and similarity between plasma-plasma and liquid-liquid first-order phase transitions
23	Rabab Zahira , <i>University of Agriculture Faisalabad (Pakistan)</i> , Co-precipitation synthesis, physical and magnetic properties of manganese ferrite powder
24	Lin-Lin Wang , <i>Ames Laboratory (USA)</i> , High-throughput Screening of Doped MnBi for Better Permanent Magnets
25	Berk Onat , <i>Harvard University (USA)</i> , Artificial Neural Networks for Representation of Potential Energy Surface of Li-Si Alloys
26	Farzaneh Shayeganfar , <i>Ecole Polytechnique de Montreal (Canada)</i> , Electronic Properties of Self-Assembled Trimesic Acid on Graphene
27	Sholeh Alaei , <i>METU (Turkey)</i> , Study of Structural, Electronic and Magnetic Properties of (Fe ₂ O ₃) _n Clusters Using Density Functional Theory
28	Angelo Ziletti , <i>Boston University (USA)</i> , Exciton transport and charge separation in artificial light harvesting systems: merging quantum non-adiabatic dynamics with electronic structure theory
29	Ali Khaledi Nasab , <i>Ohio University (USA)</i> , Localization of Envelop Functions in InAs/GaAs Dome-Shaped Quantum Dots
30	Ali Khaledi Nasab , <i>Ohio University (USA)</i> , Shape-dependent Properties of InAs/GaAs Quantum Dots in Presence and Absences of Wetting Layer
31	Xukun Xiang , <i>Michigan State University (USA)</i> , Atomistic simulation of systems driven through phase transitions by hot electron distributions
32	Nick Materise , <i>Northeastern University (USA)</i> , Evaluation of Periodic Green's Functions on Graphics Processing Units
33	Aram Shirinyan , <i>Kiev University and National Academy of Science (Ukraine)</i> , The nanophase diagrams of thin films based on molecular static simulations and the size effect
34	Guiping Zhang , <i>Renmin University of China</i> , Effects of Strain on Electronic Transport Property of Graphene Nanoribbons between metallic contacts

4 <i>Fluid Dynamics (Small Ballroom)</i>	
1	Yao Shi , <i>Northwestern Polytechnical University (China)</i> , Numerical Simulation of Cavitation Characteristics for Pump-jet Propeller
2	Guang Pan , <i>Northwestern Polytechnical University (China)</i> , Numerical Simulation of Drag and Flow Noise Property on Structure for Carrier of Multi-loads AUV
3	Aydogan Ozdamar , <i>Ege University (Turkey)</i> , Computational Investigation of Flow Control by Means of Tubercules on Darrieus Wind Turbine Blades
4	Lev Barash , <i>Landau Institute for Theoretical Physics (Russia)</i> , Dependence of the fluid convection in an evaporating sessile droplet on the properties of the substrate
5	Jinwang Tan , <i>Boston University (USA)</i> , Modeling the growth and morphology of dendrites in Lithium air batteries
6	Ilias Toliás , <i>National Center of Scientific Research (Greece)</i> , CFD simulation of hydrogen deflagration in a vented room
7	William Lane , <i>Boston University (USA)</i> , Efficient simulations of heated gas-particle flows with immersed horizontal cylinders

4	Fluid Dynamics, continued
8	Shreyas Mandre , <i>Brown University (USA)</i> , A reduced model for vortex shedding from a body using matched asymptotics

5	Quantum Many-Body Physics (Large Ballroom)
1	Ying Tang , <i>Boston University (USA)</i> , Monte Carlo studies of spinon deconfinement in two dimensions
2	Zhi Wang , <i>Sun Yat-sen University (China)</i> , Rectification effect in Majorana fermion SQUID
3	Adam Iazzi , <i>Boston University (USA)</i> , 1D Valence Bond Solids in a Magnetic Field
4	Zhao Liu , <i>Princeton University (USA)</i> , Matrix-Product-State Algorithm for Finite Fractional Quantum Hall Systems
5	Nils Blümer , <i>Gutenberg University Mainz (Germany)</i> , Tunable nanomagnetism in moderately cold fermions on optical lattices
6	Nils Blümer , <i>Gutenberg University Mainz (Germany)</i> , Fate of the false Mott-Hubbard transition in two dimensions
7	Cheng-Wei Liu , <i>Boston University (USA)</i> , Imaginary-time quench quantum Monte Carlo algorithm and its applications to spin-glass transitions
8	Edgar Josué Landinez Borda , <i>Universidade Estadual de Campinas (Brazil)</i> , Mechanical Properties of Solid Helium 4 by Path-Integral Monte Carlo Calculations
9	William Putikka , <i>Ohio State University (USA)</i> , Entropy and Thermopower in the 2D t-J Model
10	Hidemaro Suwa , <i>University of Tokyo (Japan)</i> , Gap Estimation and Level Spectroscopy for Quantum Spin Systems by Monte Carlo Method
11	Masahiko Higuchi , <i>Hiroshima University (Japan)</i> , Validity of the kinetic energy functional based on the coupling-constant expression in the pair-density functional theory
12	Kyle Robertson , <i>University of Vermont (USA)</i> , Monte Carlo Simulation of Superfluid Helium-4 in Mesoporous Silica
13	Krissia de Zawadzki , <i>Universidade de São Paulo (Brazil)</i> , Alternative numerical renormalization-group method to compute magnetic relaxation rates in dilute magnetic alloys
14	Mohammad Soltanieh-ha , <i>Northeastern University (USA)</i> , Interplay of charge, spin and lattice degrees of freedom on the spectral properties of the one-dimensional Hubbard-Holstein model
15	Shainin Davidson , <i>Boston University (USA)</i> , SU(3) classical representation of quantum dynamics of interacting spins
16	Thomas Lang , <i>Boston University (USA)</i> , Dynamic scaling from non-equilibrium quenching of correlated Dirac fermions
17	Alberto Nocera , <i>Northeastern University (USA)</i> , Pairing and nanoscale phase separation in Bose-Fermi mixtures
18	Daoxin Yao , <i>Sun Yat-sen University (China)</i> , Quantum Monte Carlo study of Disordered Spin Systems
19	Chia-Min Chung , <i>National Tsin Hua University (Taiwan)</i> , Entanglement spectroscopy using quantum Monte Carlo

5 Quantum Many-Body Physics, continued	
20	Hitesh Changlani , <i>University of Illinois at Urbana-Champaign (USA)</i> , Stochastically Projecting Tensor Networks
21	Michael Zeitlin; Antonina Fedorova , <i>IPME RAS (Russia)</i> , Quantum Mechanics: Beyond Gaussians
22	Phillip Weinberg , <i>Boston University (USA)</i> , Using Local Updates to Evaluate Real Time Dynamics of Manybody Lattice Models
23	Hui Shao , <i>Beijing Normal University (China)</i> , Topological properties of valence-bond-solid states of the JQ3 model
24	Lu Liu , <i>Beijing Normal University (China)</i> , The effects of bond-disorder in the two-dimensional JQ_3 model

8 Astrophysics and Space Plasma Physics (Small Ballroom)	
1	Ke-Jung Chen , <i>UCSC (USA)</i> , Supernovae at the Cosmic Dawn
2	Pramod Kumar Purohit , <i>National Institute of Technical Teachers' Training & Research (India)</i> , Evaluation of geomagnetic storms effects on the GPS derived total electron content (tec)
3	Pramod Kumar Purohit , <i>National Institute of Technical Teachers' Training & Research (India)</i> , The statistical investigation of amplitude Scintillations at Indian high latitude Station Maitri, Antarctica
4	Carlos Arturo Soto-Campos , <i>Autonomous University of Hidalgo State (Mexico)</i> , An alternative model to cold dark matter for galactic rotation curves
5	Juan Hinojosa , <i>Texas A&M University (USA)</i> , The Surface Gravitational Expression of an Upwelling Thermal Mantle Plume: A Computational Model

9 Computational Physics Education (Ziskind Lounge)	
1	Felix Garcia-Clemente , <i>University of Murcia (Spain)</i> , EjsS: A JavaScript library which makes computational-physics education simpler
2	Samuel Castle , <i>Davidson College (USA)</i> , A Parallel Computational Model of Orbiting N-Body Clusters
3	Jay Wang , <i>University of Massachusetts Dartmouth (USA)</i> , Computational physics with meshfree methods
4	Hartmut Ruhl , <i>LMU (Germany)</i> , An effective PIC-solver for radiation reaction of electrons and radiation

10 Novel Computing Paradigms (Small Ballroom)	
1	Kewei Du , <i>Institute of Software</i> , Heterogeneous Beam Dynamic Simulations for Linear Accelerator
2	Yun-Da Hsieh , <i>National Taiwan University</i> , Implementation of the Universal Tensor Network Library on GPU using Cuda
3	Andrew Pochinsky , <i>MIT (USA)</i> , Data parallel scientific programming with Qlua

11 General Computational Physics (Small Ballroom)	
1	Brian Burrows , <i>Staffordshire University (UK)</i> , Confined Systems
2	Mitsuki Toogoshi , <i>Hosei University (Japan)</i> , Maximum Entropy Method for Optical Spectrum Analysis of Real-Time TDDFT
3	Ronald White , <i>James Cook University (Australia)</i> , A method for the accelerated numerical solution of fractional diffusion equations
4	Ronald White , <i>James Cook University (Australia)</i> , The application of pseudo-spectral methods to low-energy positron transport gases
5	Arman Kussainov , <i>al-Farabi National University (Kazakhstan)</i> , Neutron monitor data analysis through quantum transformation operator's eigenvalue statistics
6	Sul-Ah Ahn , <i>KISTI (Korea)</i> , Research Activity in High Performance Computational Physics: Co-authorship Network Analysis
7	Henio Rego , <i>CPS/Boston University and IFMA (USA)</i> , When a Text is Translated Does the Complexity of Its Vocabulary Change? Translations and Target Readerships