

International Wigner Workshop 2021

Program

Version **May 19, 2021**

	Invited	Regular
Presentation time (mins)	25	15
Q&A time (mins)	5	5
Total time (mins)	30	20

Time zone conversion: <https://www.timeanddate.com/worldclock/converter.html>

	UTC-7 (US West Coast)	UTC-4 (US East Coast)	UTC+2 (Austria)	UTC+9 (Korea, Japan)	Presenter	Title
Monday, May 17	5:00	8:00	14:00	21:00	Kim and Weinbub	Opening by the organizers
	5:10	8:10	14:10	21:10	Tilma (invited)	Visualizations of Wigner Function Representations: The Discrete, The Continuous, And The "Weird".
	5:40	8:40	14:40	21:40	Dahlsten	Tunnelling Necessitates Negative Wigner Function
	6:00	9:00	15:00	22:00	Chabaud	Witnessing Wigner Negativity
	6:20	9:20	15:20	22:20	Ziane	The Wigner Function Negativity and Non-Gaussian Entanglement
	6:40	9:40	15:40	22:40	Spisak	Dynamical Tunneling of the Defective Schrödinger Cat States
	7:00	10:00	16:00	23:00	Woźniak	Phase-Space Approach to Nonlinear Oscillator Under Periodic Electric Field
Tuesday, May 18	5:00	8:00	14:00	21:00	Moskalenko (invited)	Towards Quantum Tomography with Subcycle Temporal Resolution
	5:30	8:30	14:30	21:30	Ahn	High-Order Harmonics Radiation and its Time-Frequency Wigner Representation for a Two-Level System Driven by Ultrashort Pulses
	5:50	8:50	14:50	21:50	Larkin	Thermodynamic Properties of Unpolarized Uniform Electron Gas: Monte Carlo Simulations.
	6:10	9:10	15:10	22:10	Roussel	A Time-Frequency Approach to Relativistic Correlations in Quantum Field Theory
	6:30	9:30	15:30	22:30	Rivlin	Using Classical Wigner Dynamics to Elucidate Tunneling Times
	6:50	9:50	15:50	22:50	Lang	Dissipative Phase Space Crystals in Josephson Circuits
	7:10	10:10	16:10	23:10	Lei	Selective Correlations in Finite Quantum Systems: The Desargues and Pappus Properties
Wednesday, May 19	5:00	8:00	14:00	21:00	Aksamija (invited)	Thermoelectric Transport in Nanostructured Materials: The Wigner-Boltzmann Approach
	5:30	8:30	14:30	21:30	Reboiro	Exceptional Points from the Hamiltonian of a Hybrid Physical System
	5:50	8:50	14:50	21:50	te Vrugt	Orientational Order Parameters for Arbitrary Quantum Systems
	6:10	9:10	15:10	22:10	Hahn	Wigner Function and Entropy Dynamics of a Single Phonon Mode Coupled to an Optically Excited Quantum Dot
	6:30	9:30	15:30	22:30	Muscato	Wigner Ensemble Monte Carlo Simulation Without Discretization Error of a GaAs Resonant Tunneling Diode
	6:50	9:50	15:50	22:50	Barletti	Quantum Transmission Conditions for the Simulation of Graphene Heterojunction Devices
	7:10	10:10	16:10	23:10	Dario Camiola	Equilibrium Wigner function for Fermions and Classical particles
Thursday, May 20	5:00	8:00	14:00	21:00	Kim	Application of the Window Function to the Discrete Wigner Transport Equation to Overcome Its Momentum Resolution Limit
	5:20	8:20	14:20	21:20	Kosik	Open Boundary Conditions for the Wigner and the Characteristic von Neumann Equation
	5:40	8:40	14:40	21:40	Schulz	Approximation of Multiband Hamiltonians for the Wigner Equation
	6:00	9:00	15:00	22:00	Eryilmaz	On the Nonphysical Solutions to the Wigner Equation in Electronic Transport Simulation
	6:20	9:20	15:20	22:20	Villani	On the Wigner-Boltzmann Equation of Motion for Scenarios with Non-Commuting Energy Momentum Operators
	6:40	9:40	15:40	22:40	Degiovanni	Processing Quantum Signals Carried by Electrical Currents
	7:00	10:00	16:00	23:00	Romano	Quantum Corrected Hydrodynamical Models for Charge Transport Based on the Equilibrium Wigner Function
7:20	10:20	16:20	23:20	Rundle	Quantum-State Verification in Phase Space	
Friday, May 21	5:00	8:00	14:00	21:00	Amin	Hybrid Quantum-Classical Mechanics: Lessons from Wigner
	5:20	8:20	14:20	21:20	Vourdas	Coherent Subspaces in a Hilbert Space with Prime Dimension and Q Functions
	5:40	8:40	14:40	21:40	Poli	Wigner-Function Applications in Magnetic-Confinement Fusion: Propagation of High-Frequency Beams and Evolution of Geodesic-Acoustic Packets
	6:00	9:00	15:00	22:00	Manfredi	Wigner Dynamics with Spin Effects
	6:20	9:20	15:20	22:20	Ozorio de Almeida	Distinguishing Quantum Features in Classical Propagation
	6:40	9:40	15:40	22:40	Weber	Wigner-Function-Based Solution Schemes for Electromagnetic Wave Beams in Fluctuating Media
	7:00	10:00	16:00	23:00	Ballicchia	Modeling Coulomb Interaction with a 'Wigner-Poisson' Coupling Scheme
						Closing