

Programme
NPQS, 17-20 Dec. 2017, Krvavec, Slovenia

Sunday, 17. 12. 2017		
	Author	Title
12:00 - 14:00	Registration	
14:00 - 14:15	Opening	
	Chair: J. Demšar	
14:15 - 14:40	F. Parmigiani	A Non-Euilibrium approach to the optical spectroscopy of high-temperature superconductors
14:40 - 15:05	D. Mihailovic	Creation of new states of matter under nonequilibrium conditions in 2D dichalcogenides
15:05 - 15:30	Y. Gerasimenko	On the origin of hidden states metastability in 1T-TaS ₂
15:30 - 15:55	P. Karpov	Modeling of networks and globules of charged domain walls observed in pump and pulse induced states in 1T-TaS ₂
15:55 - 16:10	J. Ravnik	Photoinduced states in 1T-TaS ₂ reached by extreme fluences
16:10 - 16:25	J. Vodeb	Theoretical modeling of the non-equilibrium amorphous state in 1T-TaS ₂
16:25 - 16:50	<i>Coffe Break</i>	
	Chair: F. Parmigiani	
16:50 - 17:15	A. Kimmel	Ultrafast Magnetism in High Magnetic Fields
17:15 - 17:40	J. Demšar	Néel Vector Dynamics of Mn ₂ Au Probed by Time Domain Spectroscopy
17:40 - 18:05	A. Pogrebna	Spectral Tunability of Mechanisms of Laser-induced Spin Dynamics in Ferromagnetic Semiconductor CdCr ₂ Se ₄
18:05 - 18:30	M. Ligges	Ultrafast electron dynamics in pristine and chemically doped 1T-TaS ₂
18:30 - 20:00	<i>Dinner break</i>	
	Chair: V. Kabanov	
20:00 - 20:25	F. Heidrich-Meisner	Non-equilibrium dynamics in the 1D Fermi-Hubbard model
20:25 - 20:50	P. Prelovšek	Finite-temperature properties of Heisenberg model on a triangular lattice
20:50 - 21:05	L. Zadnik	Integrable Trotterization: Local Conservation Laws and Boundary Driving

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Monday, 18. 12. 2017		
	Author	Title
	Chair: A. Kimel	
9:00 - 9:25	L. Perfetti	Time resolved photoelectrons spectroscopy of novel materials for optoelectronic applications
9:25 - 9:50	C. Monney	Transient band gap enhancement in the excitonic insulator phase of Ta ₂ NiSe ₅ upon photoexcitation
9:50 - 10:15	D. Golež	Manipulation of band gap upon photoexcitation of an excitonic insulator
10:15 - 10:35	<i>Coffee break</i>	
	Chair: L. Perfetti	
10:35 - 11:00	D. Fausti	Quantum Spectroscopies for quantum materials
11:00 - 11:25	S. Tsuchiya	Characterization of electronic states in k-(BEDT-TTF) ₂ Cu[N(CN) ₂] by polarized pump probe spectroscopy
11:25 - 11:50	D. Dominko	Collective states driven far away from the equilibrium
11:50 - 12:05	M. Naseska	Ultrafast spin density wave dynamics at intense optical pulse excitation
12:05 - 16:50	<i>Lunch break</i>	
	Chair: Z. Lenarčič	
16:50 - 17:15	A. Taylor	Ultrafast Dynamics in Quantum Materials
17:15 - 17:40	V. Kabanov	Bipolaron mechanism of the organic magnetoresistance as a correlation effect in hopping conduction
17:40 - 18:05	J. Kokalj	Deconstructing anomalous resistivity of bad metals
18:05 - 18:30	J. Mravlje	Two unusual CDW systems from the perspective of DFT
18:30 - 20:00	<i>Dinner break</i>	
	Chair: S. Trugman	
20:00 - 20:25	D. J. Luitz	Quantum information propagation
20:25 - 20:50	J. Herbrych	Spin dynamics within orbital-selective Mott phase
20:50 - 21:05	I. Kukuljan	Correlation functions of the quantum sine-Gordon model: experiment and theory
21:15	Social event	

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Tuesday, 19. 12. 2017		
	Author	Title
	Chair: T. Tohyama	
9:00 - 9:25	M. Eckstein	Theory for the measurement of fluctuations in time-resolved optical spectroscopy
9:25 - 9:50	D. Arčon	A new high-temperature quantum spin liquid with polaron spins
9:50 - 10:15	I. Žutić	Magnetic Proximity Effects and Novel Excitation in 2D Materials
10:15 - 10:35	<i>Coffee break</i>	
	Chair: P. H. M. van Loosdrecht	
10:35 - 11:00	F. Cliento	Non-equilibrium dynamics in WTe_2 revealed by optical and photoelectron spectroscopies
11:00 - 11:25	T. Rejec	Differential thermopower of quantum point contacts
11:25 - 11:50	Z. Papic	Quantum many-body scars and non-ergodic dynamics in the Fibonacci chain
11:50 - 12:05	L. Ulčakar	Slow quenches in time-reversal symmetric insulators
12:05 - 16:50	<i>Lunch break</i>	
	Chair: J. Bonča	
16:50 - 17:15	T. Tohyama	Photoinduced absorptions inside the Mott gap in two-dimensional extended Hubbard model
17:15 - 17:40	R. Žitko	Domain walls in correlated insulators
17:40 - 18:05	V. F. Nasretdinova	Polarization-resolved transient optical reflectivity studies of the low-symmetry charge-density wave compounds Mo_8O_{23} and Mo_2S_3
18:05 - 18:30	I. Madan	Light-coupled TEM-Swiss army knife for condensed matter physics
18:30 - 20:00	<i>Dinner break</i>	
	Chair: A. Taylor	
20:00 - 20:25	P. H. M. van Loosdrecht	Ultrafast Raman Scattering in Complex Matter: New Views on Non-Equilibrium Dynamics
20:25 - 20:50	A. Potočnik	Photon Crystallization in a System of Two Nonlinearly Coupled Superconducting Resonators
20:50 - 21:15	J. Bonča	Charge vs. Spin Disorder in a Correlated Electron System
21:05 - 21:20	M. Medenjak	On diffusion in integrable systems

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Wednesday, 20. 12. 2017		
	Author	Title
	Chair: P. Prelovšek	
9:00 - 9:25	T. Prosen	Many-body quantum chaos: The first analytic connection to random matrix theory
9:25 - 9:50	S. Sotiriadis	Quantum Transport after Inhomogeneous Quenches
9:50 - 10:15	Z. Lenarčič	Time-dependent generalized Gibbs ensembles in open systems
10:15 - 10:45	Coffee break	
	Chair: F. Heidrich-Meisner	
10:45 - 11:10	B. Bertini	Transport in Closed One-Dimensional Systems: Integrable Models and Universality at Low Temperatures
11:10 - 11:25	D. Brecht	Analysis of the Temperature Behaviour of a Qubit-Calorimeter model
11:25 - 11:40	Closing	