



7th-11th October 2019, Belgrade, Serbia

Двадесети симпозијум физике кондензоване материје - СФКМ

The 20th Symposium on Condensed Matter Physics - SCMP

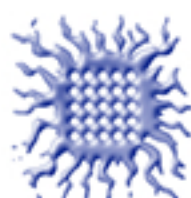
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University of Belgrade,
Faculty of Physics



Institute of Physics Belgrade



Vinca Institute
of Nuclear Sciences



Serbian Academy
of Sciences and Arts



Ministry of Education, Science and
Technological Development,
Republic of Serbia

The 20th Symposium on Condensed Matter Physics - SFKM 2019, Belgrade - Serbia

Location: SASA Building Kneza Mihaila 35/II Belgrade, Serbia

Date: 7th-11th October 2019

Day 1 – 7th October 2019 – SASA Building - Main Lecture Hall

9:00 — 9:15 Conference opening

Chairman *Zoran Popović*

9:15 — 10:00 Why are hybrid halide perovskites exciting materials? L. Forro

10:00 — 10:45 Spectroscopy Of Few-Layer Superconducting NbSe₂ M. Aprili

10:45 — 11:00 Coffee break

Chairman *Zoran Radović*

11:00 — 11:45 CeCu₂Si₂: Unconventional Superconductivity Close To A Three-Dimensional Spin - Density - Wave - Quantum Critical Point F. Steglich

11:45 — 12:15 Tensorial (D-Wave) Superconducting Order In Luttinger Semimetals I. Herbut

12:15 — 12:30	An Ultra-Sensitive Thermometer Based On Superconducting Heterostructures	D. Nikolić
12:30 — 14:30	Lunch break	
<i>Chairman</i>	<i>Marko Spasenovic</i>	
14:30 — 15:00	The Use Of Complex Oxide Interfaces And Monoatomic Scale Defects In Controlling Transport Properties In ZnO Nanowires	V. Radmilović
15:00 — 15:30	Controlling The Magnetic Anisotropy Of Van Der Waals Ferromagnet Fe ₃ GeTe ₂ Through Hole Doping	H. Ryu
15:30 — 16:00	Engineering the Electronic and Chemical Properties of Graphene via Functionalization and Intercalation.	L. Hornekaer
16:00 — 16:30	Graphene on Nickel Surfaces: Theory and Experiments	M. Peressi
16:30 — 16:45	Coffee break	
<i>Chairmain</i>	<i>Guyla Eres</i>	
16:45 — 17:15	Defect-Induced Colossal Thermopower In FeSb ₂	C. Petrovic

17:15 — 17:45	Magnetic Topological Semimetals With Kagome Lattices	H. Lei
17:45 — 18:05	A Phase Diagram Of Fractional Quantum Hall Effect At Filling Factor $5/2$ Without Disorder	M. Milovanović
18:05 — 18:20	Analysis Of The Frenkel Excitons Dynamics In Pentacene	S. Gombar
18:20 — 20:00	Poster session	

Day 2 – 8th October 2019 – SASA Building – Hall 2

Chairman

Darko Tanasković

9:00 — 9:45	Dynamical Mean-Field Theory Of Strongly Correlated Electron Systems	D. Vollhardt
9:45 — 10:15	Cooperative Self-Assembly As A Modeling Framework For Programmable Materials	B. Tadić
10:15 — 10:35	Macroscopic Variability in Modular Neural Networks	I. Franović
10:35 — 10:55	Spectral Properties Of Hyperbolic Nano-Networks	M. Mitrović-Dankulov
10:55 — 11:10	Coffee break	

Chairman

Hechang Lei

11:10 — 11:30	Manipulation Of Organic Thin Film Growth By The Step Width Of Ion Beam Modified TiO ₂ (110)	M. Kratzer
12:00 — 12:30	Increasing Endurance And Retention In HfO ₂ -Based ReRAM: A Microscopic Picture	M. Ležaić
12:30 — 12:50	Multifunctional Nanodevice Based On Ti ₂ O	I. Popov
12:50 — 13:10	Nanoscale Electrical And Mechanical Control Of Resistive Switching In Iridates And Manganites	B. Vasić
13:10 — 15:00	Lunch break	
<i>Chairman</i>		
15:00 — 15:30	Quantum Geometry Of Topological Josephson Matter	W. Belzig
15:30 — 16:00	Electronic Collective Modes As A Diagnostic Tool For Pairing In Superconductors	R. Hackl
16:00 — 16:20	Hydrogen-Induced High-Temperature Superconductivity In Two-Dimensional Materials: The Case Of Hydrogenated Monolayer MgB ₂	J. Bekaert

16:20 — 16:40	Frustrated Spin Order And Fluctuations In FeSe: A Raman Scattering Study	N. Lazarević
16:40 — 16:55	Coffee break	
<i>Chairmain</i>	<i>Igor Herbut</i>	
16:55 — 17:15	Superconducting Nature Of Elemental Bismuth Under Pressure	M. Radonjić
17:15 — 17:45	Electronic Structure Engineering Of SiGeSn(C) Alloys For Optoelectronic And Thermoelectric Applications	Z. Ikonić
17:45 — 18:00	Ruddlesden-Popper Phases Of 2D Halide Perovskites	M. Mladenović
18:00 — 18:15	Light-To-Charge Conversion In Organic Photovoltaics: Mechanisms And Timescales	V. Janković
18:15 — 18:30	Optical Properties Of WS ₂ Nanotubes	B. Višić

Day 3 – 9th October 2019 – SASA Building – Hall 2

Chairman *Milan Damnjanović*

9:00 — 9:45	Atomic Collapse And Flat Bands In Graphene	F. Peeters
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9:45 — 10:05	Gold/MoS ₂ Interface Engineering Using Self-Assembled Monolayers	A. Matković
10:05 — 10:25	Peculiar Electronic Dispersions In Two- Dimensional Materials Caused By Symmetry	V. Damjanović
10:25 — 10:45	Liquid-Phase Exfoliation Of Graphene And Chemical Doping Of Langmuir-Blodgett Assembled Graphene Films	I. R. Milošević
10:45 — 11:05	Transparent Conductors And Gas Sensors From 2D Material Thin Films	M. Spasenović
11:05 — 11:20	Coffee break	
<i>Chairman</i>	<i>Markus Kratzer</i>	
11:20 — 11:50	Local Orbital Degeneracy Lifting As A Precursor To An Orbital-Selective Peierls Transition	E. Božin
11:50 — 12:20	Higher Order Topological Phases: General Principle Of Construction And Their Realizations	V. Juričić
12:20 — 12:50	Living On The Edge: Model States For The Interface Of Chiral Topological Orders	N. Regnault

12:50 — 13:20	Concepts for Understanding Nonlinear Second Harmonic Generation of Bulk Silicon	K. Hingerl
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13:20 — 20:00	Lunch break + Conference Excursion	
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Day 4 – 10th October 2019 – SASA Building – Hall 2

<i>Chairwoman</i>	<i>Jelena Pešić</i>
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9:00 — 9:45	Quantum State Manipulation And Relaxation Mechanisms In Single Atom Magnets	H. Brune
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9:45 — 10:15	Kondo Effect in Unconventional Host Materials	R. Žitko
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10:15 — 10:35	Dynamics And Spin And Charge Pumping Of Noncollinear Magnetic Textures: A Multiscale Quantum-Mechanics/Classical- Micromagnetics Approach	M. Petrović
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10:35 — 10:55	On The 3D To 2D Crossover In The Nonequilibrium Athermal Random Field Ising Model	Đ. Spasojević
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10:55 — 11:10	Coffee break	
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<i>Chairwoman</i>	<i>Hyejin Ryu</i>
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11:10 — 11:30	Conductivity in the Hubbard model	J. Vučičević
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11:30 — 11:50	Friedel Oscillations Of One-Dimensional Correlated Fermions From Perturbation Theory And Density Functional Theory	J. Odavić
11:50 — 12:20	A Large Family Of Triangular Lattice Spin Liquid Candidates	Q. Zhang
12:20 — 12:50	Creating Emergent Phases In Transition Metal Oxides	M. Radović
12:50 — 13:10	Nematic Fluctuations In Iron Based Systems	A. Baum
13:10 — 15:00	Lunch break	
<i>Chairman</i>	<i>Milan Tadić</i>	
15:00 — 15:30	Energy losses and transition radiation produced by the interaction of fast charged particles with two-dimensional materials	Z. Mišković
15:30 — 15:50	Symmetry Required Band Crossings In Low-Dimensional Systems	I. Milošević
15:50 — 16:10	Classification Of Quasi-One-Dimensional Topological Crystalline Phases: Topological Quantum Chemistry Approach	S. Dmitrović

16:10 — 16:25	Strain Effects On Vibrational Properties In Hexagonal 2D Materials From The First Principles - Doped Graphene And MgB ₂ - Monolayer Study	J. Pešić
16:25— 16:40	Understanding Trends In Lithium Binding At Two-Dimensional Materials	S.Stavrić
16:40— 16:55	Metal Surface Induces Strong Acoustic Plasmons In Chemically Doped Graphene	V. Despoja
16:55— 17:10	Double moiré with a twist: super-moiré in encapsulated graphene	S.Milovanović
17:10 — 17:25	Coffee break	
<i>Chairman</i>	<i>Zoran Mišković</i>	
17:25 — 17:55	Wrinkle Patterns In Active Viscoelastic Thin Sheets	R. Sknepnek
17:55 – 18:25	Real-Time Study of Oxygen Vacancy Ordering Dynamics at Complex Oxide Heterostructure Interfaces	G. Eres
18:25 — 18:45	Fluorescent Nanostructured Materials For Cell Bioimaging Applications - Fabrication And Physical Properties	V. Đoković
20:30	Conference dinner	

Day 5 – 11th October 2019 – SASA Building – SASA Building – Hall 2

Chairman

Milan Knežević

9:00 — 9:30	Multy Functional Roles Of Microtubules In Living Cells	M. Satarić
9:30 — 9:50	Surface Tensions Between Active Fluids And Solid Interfaces: Bare Vs Dressed	M. Knežević
9:50 — 10:10	Self-Organization, Time Operator And Number Theory	M. Rajković
10:10 — 10:30	The Effect Of Thresholding On Interevent Correlations	S. Janićević
10:30 – 10:45	Disordered Configurations Of The Glauber Model On Two-Dimensional Networks	I. Bačić
10:45 — 11:00	Coffee break	

Chairman

Francois Peeters

11:00 — 11:30	Fröhlich allowed GaN Silent Modes in Raman Spectroscopy	A. Cantarero
11:30 — 11:50	Nanostructured BiFeO ₃ Thin Films	Z. Konstantinović

11:50 — 12:05	Magnetic-Field Dependence Of The Electronic And Optical Properties Of Hexagonal-Shaped HgTe Quantum Dots And Quantum Rings .	D. Topalović
12:05 — 12:20	Synthesis And Characterization Of $\text{Mo}_{1-x}\text{W}_x\text{S}_2$ Nanotubes	L. Pirker
12:20 — 13:05	Topological Quantization And Gauge Invariance Of Charge Transport In Liquid Insulators	S. Baroni
13:05- 13:20	Conference closing	