## **Conference place:** Vršac, hotel Srbija

### **Focused sessions:**

Nanostructures and Low-dimensional Systems
Superconductivity, Magnetism and Strongly

Correlated Systems

- 3. Soft Matter
- 4. Semiconductors
- 5. Optics and Spectroscopy6. Experimental Methods, Instruments, and Applied Condensed Matter Physics

Sunday, 16 September 2007	
Time	
17.00	Bus ride: Belgrade (railway station) - Vršac
19.00 -	Registration
- 22.00	Welcome Cocktail

Monday, 17 September 2007	
Time	Hall A
9.00 - 9.30 <b>Registration</b>	
9.30 - 10.00	Opening Ceremony
10.00-10.20	<b>R. Tenne:</b> Inorganic Nanotubes and Fullere- ne-like Structures (IF): Progress Report
10.20-10.40	<b>I. Bozovic:</b> Studies of Atomically Perfect High-Tc Thin Films and Superlattices
10.40-11.00.	J. Zaanen: Fermionic Quantum Criticality
30 min Coffee Break	
11.30-11.50	<b>Z. Tesanovic:</b> Emergence of Cooper Pairs,
11.50-11.50	d-wave Duality and the Physics of Cuprates
	C. Petrovic: Search For New Quasi Low Di-
11.50-12.10	mensional Superconductors and Semicon-
	ductors
12.10-12.30	S. H. Simon: Topological Quantum Compil-
	ing
	A. Auerbach: Quantum Properties of Vor-
12.30-12.50	tices of Two-Dimensional Continuum and
	Lattice Bosons
Lunch	

#### Lunch

15.00-15.20 15.20-15.40	Igor Herbut: "Higgs" Phase Transitions on
	Graphene's Honeycomb Lattice
	B. K. Nikolic: Quantum transport of mass-
	less Dirac fermions in graphene nanoribbons
	F. R. Vukajlović: Atomic structure and spin
15.40-16.00	magnetism of self-assembled Co nanowires
	on Pt (332)
	Z. Sljivancanin: Metastable Structures and
16.00-16.20	Recombination Pathways for Atomic Hydro-
	gen on the Graphite(0001) Surface
15 min Coffee Break	
	L. Forró: The Evolution of the Non-Fermi
16.35-16.55	Liquid Behavior in BaVS <sub>3</sub> Under High Pres-
	sure
16.55-17.15	C. Strunk: Quantum Conductors as Joseph-
10.55-17.15	son Junctions
	V. Dobrosavljevic: Coulomb-Frustrated
17.15-17.35	Phase Separation in a Magnetically-Doped
	2DEG
17.35-17.55	M.V. Milovanovic: Quantum Disordering of
17.35-17.55	a Quantum Hall Superfluid
17.55-18.15	D. Tanaskovic: Spin liquid behavior in elec-
17.33-10.13	tronic Griffiths phases
10 15 12 25	M. J. Konstantinović: Solid state physics
18.15-13.35	problems in nuclear materials*

r	Tuesday, 18 September 2007
Time	Hall A – NANOLab Workshop
9.00-9.20	<b>C. Teichert:</b> Self-organization of Semicon- ductor Nanostructures and their Application
9.20-9.40	to Fabricate Nanomagnet Arrays <b>P. Monceau:</b> Charge Density Wave Gap Spectroscopy in Quasi-one-dimensional
9.40-10.00	Compounds <b>K. Biljaković:</b> Charge density glass - facts and fictions
	15 min Coffee Break
10.15-10.35	<b>B. Tadic:</b> Multiscale Network Models of Nano-Materials
10.35-10.55	<b>V. Meunier:</b> Using large-scale computing for the simulation and prediction of novel phenomena at the nanoscale
10.55-11.15	A. Karwowski: Moment Equations for the Boltzmann Gas of Elastic Spheres: A Road from Statistical Physics to Continuum Me- chanics
	15 min Coffee Break
11.30-11.50	<b>J. Maultzsch:</b> Electron-phonon coupling in metallic carbon nanotubes observed by Ra-
11.50-12.10	man scattering I. Milosevic: Pentaheptite Allotropes of Car- bon Nanotubes
12.10-12.30	<b>N. Cotfas:</b> Permutation representations with application to quasicrystals and CNTs
12.30-12.50	<b>Z. Papadopolos:</b> Is Al Correctly Placed in the Model of Icosahedral Al-Pd-Mn and Al- Cu-Fe?
12.50-13.10	<b>E. Dobardzic:</b> Phonons in low-dimensional crystals
	Lunch
15.00-15.20	<b>S. Logothetidis:</b> Flexible Electronic De- vices: Principles - Processes and Applica- tions
15.20-15.40	N. Konjevic: Balmer Alpha Line Shape of Hydrogen Isotopes for Monitoring Discharge – Metal Surface Interaction
15.40-16.00	Lj. Zekovic: Galvanoluminescence After the Century
16.00-16.20	M. O. Goerbig: Magnetophonon resonance in grapheme

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	15 min Coffee Break
16 25 16 55	<b>D. Porath:</b> Towards DNA- and Protein-
10.33-10.33	Based Nanoelectronics?

16.55-17.15	I. M. Kulic: Hitchhikers Guide through the
10.55-17.15	Cell
17.15-17.35 17.35-17.55	J. Kondev: DNA Looping and Regulation of
	Gene Expression
	<b>D. Dulić:</b> Temperature gating of the ring-
	opening process in diarylethene molecular
	switches
	S. Milosević: Determining the type of mus-
17.55-18.15	cle motor activity by applying the wavelet
	theory and theory of random walks to char-
	acterize the neuronal noise
18.15-18.35	A. Damjanovic: Structural consequences of
	the ionization of internal groups in proteins
18.45-20.00	Poster session: 2.3 & 4

Wednesday, 19 September 2007		
Time	Hall A	
1		
9.00-9.20	V.V. Ryazanov: Coexistence of 0- and pi-	
	states in Josephson SFS junctions	
9.20-9.40	M. Aprili: Dynamics of Ferromagnetic Jo-	
9.20-9.40	sephson Junctions	
0.40.10.00	M. L. Kulic: Pi-Contact Interferometry	
9.40-10.00	Based on Ultracold Fermionic Atomic Gases	
10.00-10.20	M. Bozovic: Spin-triplet correlations in su-	
10.00-10.20	perconductor-ferromagnet multilayers	
	Lj. Dobrosavljevic-Grujic: Superharmonic	
10.20-10.40	Josephsons devices based on d-wave junc-	
	tions with a ferromagnetic barrier	
	20 min Coffee Break	
	H. Raffy: Evolution of Electronic Properties	
11.00-11.20	of BiSrCaCuO Thin Films controlled by Ox-	
	ygen Doping: selected experimental results	
	D. Popovic: Glassy Effects in the Low Tem-	
11.20-11.40	perature Transport and Noise in Lightly	
	Doped $La_{2-x}Sr_xCuO_4$	
	<b>D. Pavuna:</b> The Genuine Challenge of	
11.40-12.00	High-Tc Superconductivity: Physics and	
	Nano-engineering of Heteroepitaxial Films	
12.00-12.20	J. Demsar: Ultrafast Phenomena in Super-	
	conductors Studied by Real-time Probes	
12.20-12.40	M. Skrinjar: Magnetic Properties of Spin-	
	1/2 Antiferromagnet and High-Tc Parent	
	Compound La2CuO4	
Lunch		

Lunch

14.00-15.00	L. Forro, D. Pavuna, M. Kulic , Z. Rado-
	vic: Mini-Symposium in Honor of Ivan Bo-
	zovic - "High-Temperature Superconductors
	and Related Problems"
15.00-15.15	J. Filipovic: Scientific Diaspora and Home-
15.15-	land - partnership for prosperity
	Round Table
	1
20.00	Excursion & Conference Dinner

Thursday, 20 September 2007 Time Hall A L. Golubovic: Far-From-Equilibrium Statis-9.00-9.20 tical Mechanics of the Epitaxial Growth on (110) Crystal Surfaces M. Knezevic: Some New Results for Zero 9.20-9.40 Temperature Random Field Ising Model N. Bibic: Interface mixing of Fe/Si bilayers by noble-gas ions: effects of the ion charge-9.40-10.00 state and low-energy Ar ion pre-morphization of Si substrates 15 min Coffee Break M. Drndic: Sub-10 nm Device Fabrication 10.15-10.35 in a Transmission Electron Microscope M. Loncar: Light-Matter Interaction in 10.35-10.55 Nanophotonic Devices N. Vukmirović: Theory of Quantum Dot 10.55-11.15 Intraband Optoelectronic Devices V. I. Srdanov: Combinatorial approach to 11.15-11.35 organic optoelectronic materials made by PVD 15 min Coffee Break G. Eres: Transient Interlayer Transport in 11.50-12.10 SrTiO3 Pulsed Laser Deposition Studied by Time-Resolved Surface X-Ray Diffraction G. Srajer: Atomic Origin of Magnetic 12.10-12.30 Hardness in our Best Permanent Magnet Z. Konstantinović: Metallic Nanoparticles Embedded in an Insulator Matrix: Growth 12.30-12.50 Mechanisms, Magnetic and Transport Properties M. Šćepanović: Vibrational Spectroscopy Methods as a Powerful Tool for Nanomate-12.50-13.10 rials Characterization 13.10-13.30 **Closing ceremony** Lunch Bus ride: Vršac - Belgrade 15.15



Vršac, September 16-20, 2007.

# **TIME SCHEDULE**

XVII Symposium on Condensed Matter Physics SFKM 2007

## http://www.sfkm.phy.bg.ac.yu/

Vršac, September 16-20, 2007 Serbia

Serbian Physical Society Faculty of Physics University of Belgrade Institute of Physics Belgrade "Vinca" Institute