

Program

Sunday, April 18, 2021			
SD	Special Session for PhD students in Physics <i>(3 minutes – 3 slides presentation)</i> Chair persons: Dawid Nałęcz, Kamila Komędera		
16:00-16:10	Welcoming address	Hoa Kim Ngan Nhu-Tarnawska	
16:10-16:15	<i>The fracture toughness of TiB_2 doped by tungsten measured by the nanoindentation method</i>	Sylwia Sowa	SD-01
16:15-16:20	<i>Is there a relationship between curvature and inductance in the Josephson junction?</i>	Aleksander Jarmoliński	SD-02
16:20-16:25	<i>Electrical properties of sodium bismuth titanate $Na_{0.5}Bi_{0.5}TiO_3$ ceramics under various sintering conditions</i>	Kamila Kluczevska-Chmielarz	SD-03
16:25-16:30	<i>Effect of Fe doping electric properties of $Na_{0.5}B_{0.5}TiO_3$ ceramics in unpoled and poled state</i>	Marcin Wąs	SD-04
16:30-16:35	<i>Influence of E-poling on the structural, dielectric, vibrational and ferroelectric properties of $Na_{0.5}Bi_{0.5}TiO_3$ single crystals</i>	Michalina Nowakowska-Malczyk	SD-05
16:35-16:40	<i>The electrocaloric effect in $BaTiO_3:Eu$ ceramics determined by an indirect method</i>	Przemysław Gwizd	SD-06
16:40-17:00	<i>Discussions</i>		

Monday, April 19, 2021			
SO	Opening Session Chair persons: Hoa Kim Ngan Nhu-Tarnawska, Silvie Mašková-Černá		
8:45-9:00	Welcome address Honorary guests of CCFES2021: Michał Rogoż, Vice-Rector of the Pedagogical University of Cracow. Grzegorz Formicki, Dean of Faculty of Exact and Natural Science, Pedagogical University of Cracow.		
S1	Session 1: Plenary Lectures Chairperson: Ladislav Havela		
9:00-9:45	<i>Quantum criticality driven by magnetic field</i>	Dariusz Kaczorowski	PL-01
9:45-10:30	<i>Superconductivity enhanced by atomic disorder</i>	Andrzej Ślebarski	PL-02
10:30-11:00	<i>Break</i>		
S2	Session 2: Historical recall of f-electrons research Chairperson: Hoa Kim-Ngan Nhu-Tarnawska		
11:00-11:45	<i>Research on Magnetism and Superconductivity of f-metal intermetallic compounds starting in the seventies of the 20th century.</i>	Jaap Franse	HI
S3	Session 3: Actinides I Chairperson: Silvie Mašková-Černá		
11:45-12:15	<i>Effects of composition on the UFe_xSb_2 system</i>	Antonio Pereira Gonçalves	I-01
12:15-12:30	<i>Magnetic entropy analysis using a calculated phonon background – how does it work for UH_3?</i>	Ladislav Havela	O-01
12:30-14:00	<i>Lunch break</i>		

S4	Session 4: Rare Earths Chairperson: Artur Błachowski		
14:00-14:30	<i>High-spin Ni states in a model for doped NiO₂ planes in NdNiO₂</i>	Andrzej Michał Oleś	I-02
14:30-14:45	<i>Quest for new intermetallic f-electron compounds</i>	Tomasz Klimczuk	O-02
14:45-15:00	<i>Local origin of strong field-angular anisotropy in magnetic phase diagrams of Ce_{1-x}La_xB₆ measured in a rotating magnetic field</i>	Dmytro Inosov	O-03
15:00-15:15	<i>Investigating ground-states of 4f-based single-crystals by neutron diffraction</i>	Margarida S. Henriques	O-04
15:15-15:30	<i>The influence of annealing temperature on the magnetic properties of La-doped BiFeO₃ prepared by sol-gel method</i>	Karolina Siedliska	O-05
15:30-16:00	<i>Break</i>		
S5	Session 5: Theory Chairperson: Ryszard Radwański		
16:00-16:30	<i>Towards a better understanding of the RKKY interaction in heavy-fermion systems</i>	Gertrud Zwicknagl	I-03
16:30-17:00	<i>Enhanced Spin-Orbit Interaction in the Underscreened Anderson Lattice</i>	Peter Riseborough	I-04
17:00-17:15	<i>Electronic structure of the non-centrosymmetric heavy-fermion CeRh₂As₂</i>	Évrard-Ouicem Eljaouhari	O-06
17:15-17:30	<i>Non-s-wave superconductivity in noncentrosymmetric ThCoC-2 in view of ab initio calculations and Eliashberg formalism</i>	Gabriel Kuderowicz	O-07
Tuesday, April 20, 2021			
S6	Session 6: Strongly correlated systems Chairperson: Andrzej Michał Oleś		

9:00-9:30	<i>Coherence in Kondo alloys</i>	Claudine Lacroix	I-05
9:30-10:00	<i>Anisotropic Magnetic Field Dependence of Non-Fermi Liquid Behavior in Quadrupolar Kondo Compound $Pr_{0.05}La_{0.95}Pb_3$</i>	Tatsuya Kawae	I-06
10:00-10:15	<i>Spin-orbital entanglement in magnetic quantum materials</i>	Dorota Gotfryd	O-08
10:15-10:30	<i>Magnetism and crystal-field states in the Kondo-lattice antiferromagnet $CeRh_2Si_2$</i>	Ryszard Radwański	O-09
10:30-11:00	<i>Break</i>		
S7	Session 7: Magnetism and superconductivity Chairperson: Zbigniew Tarnawski		
11:00-11:30	<i>Magnetism, superconductivity and magneto-transport properties of Eu-based ternary pnictides</i>	Zbigniew Bukowski	I-07
11:30-12:00	<i>Probing the superconducting state of Ce_3PtIn_{11}</i>	Jeroen Custers	I-08
12:00-12:15	<i>^{57}Fe and ^{151}Eu Mössbauer studies of 3d-4f spin interplay in $EuFe_{2-x}Ni_xAs_2$</i>	Artur Błachowski	O-10
12:15-12:30	<i>Effect of Gd doping on the magnetic properties of $CeNi_5$ melt-spun ribbons</i>	Andrea Dzubinska	O-11
12:30-14:00	<i>Lunch break</i>		
S8	Session 8: Actinides II Chairperson: Antonio Pereira Gonçalves		
14:00-14:30	<i>Non-collinear magnetism in $\beta-UH_3$</i>	Dominik Legut	I-09
14:30-14:45	<i>Electrical Resistivity measured on FIB-structured microdevices</i>	Silvie Mašková-Černá	O-12
14:45-15:00	<i>Why the cubic phase of uranium ?</i>	Kim-Ngan N.-T.H.	O-13

15:00-15:15	<i>Photoelectron spectroscopy and magnetism of U hydrides</i>	Oleksandra Koloskova	O-14
15:15-15:30	<i>Magnetism and superconductivity in complex noncentrosymmetric $M_4Be_{33}Pt_{16}$ ($M = Y, La-Nd, Sm-Lu, Th, \text{ and } U$) compounds</i>	Primož Koželj	O-15
15:30-16:00	<i>Break</i>		
S9	Session 9: Novel materials and techniques Chairperson: Zbigniew Bukowski		
16:00-16:30	<i>TOF-SIMS uranium isotopes spectrometry of small and around-natural enrichment in the nuclear forensic science</i>	Itzhak Halevy	I-10
16:30-17:00	<i>Revealing intrinsic properties of solid-state materials</i>	Eteri Svanidze	I-11
17:00-17:15	<i>^{57}Fe Mössbauer studies of 122-iron arsenides</i>	T.T.Ha Nguyen	O-16
17:15-17:30	<i>A typical heavy fermion system $CeRh_2As_2$</i>	Andrzej Ptok	O-17
Posters <i>(3 minutes – 3 slides presentation)</i>	<i>EXAFS as a Probe of Actinide Oxide Formation in the Tender X-Ray Regime</i>	James Tobin	P1
	<i>Magnetism of $TmFe_4CoAl_7$ single crystal (authors: A.V. Andreev et al.)</i>		P3
	<i>Pseudogap state in untwinned $YBa_2Cu_3O_{7-\delta}$ single crystals (authors: Omelchenko L.V. et al.)</i>		P4
	<i>Magnetization-Induced Band Shift in ferromagnetic Weyl Semimetal $Co_3Sn_2S_2$ (authors: Xianggang Qiu et al.)</i>		P5
Wednesday, April 21, 2021			
S10	Session 10: Exotic f-electron systems Chairperson: Eteri Svanidze		

9:00-9:30	<i>The dual U 5f electrons and phonon anomalies (rattling) in caged UTe_2Al_{10} systems ($TE = Fe, Ru, \text{ and } Os$)</i>	Małgorzata Samsel-Czekala	I-12
9:30-9:45	<i>Origin of large low-temperature specific heat in topological Kondo insulator SbB_6</i>	Dawid Nałęcz	O-18
9:45-10:00	<i>Intermediate Valence Behavior of $Yb_2Cu_9Al_8$</i>	Martin Juckel	O-19
10:00-10:15	<i>The interplay of 4f states and superconductivity in $CeIr_3$: DMFT study</i>	Sylwia Gutowska	O-20
Posters (3 minutes – 3 slides presentation)	<i>Observation of c-f hybridization gap in heavy-fermion system $EuNi_2P_2$ by using Point-contact spectroscopy</i>	Takuya Takahashi	P2
10:15-10:30	<i>Influence of strontium atoms substituting on the electronic properties of the $K_{0.5}Bi_{0.5}TiO_3$ studied by ab initio methods</i>	Grzegorz Jagło	P6
	Summary and Closing		
	<i>Summary</i>	Silvie Mašková-Černá	
10:30-10:45	<i>Closing</i>	Hoa Kim Ngan Nhu-Tarnawska	
10:45-11:30	On-line round-table discussion		

PL - Plenary lecture
HI - Honored invited talk
I - Invited talk
O - Oral talk
P - Poster
SD - Studia doktoranckie