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## SPINTECH Winter School Nonconventional Superconductivity Implementation in Spintronics

10-11 December 2021, Chişinău, Moldova

### Organizing committee

Prof. Anatolie Sidorenko, IEEN Chisinau, Moldova, - coordinator  
Prof. Alexander Golubov, Uni-TWENTE, Enschede, Netherlands, - responsible for the Program  
Prof. Vladimir Krasnov, Uni-Stockholm, Sweden, – responsible for the staff  
Dr. Oleg Bujor, IEEN Chisinau, Moldova (administrative work)  
Dr. Andrei Prepelita, IEEN Chisinau, Moldova (scientific secretary)  
Dr. Evgheni Antropov, IEEN Chisinau, Moldova (web-page and zoom items)

### PROGRAM

#### Day 1, 09.12.2021, Thursday

**14:00-21:00 Arrival of participants, accommodation in the Hotel "KLASSIK" ("Hotel Club Service", str. Mihail Kogalniceanu 6, MD 2001, Chisinau, E-mail: [info@klassikhotel.md](mailto:info@klassikhotel.md), tel. 022 838 388 ). Welcome meeting 20:00-22:00**

#### Day 2, 10.12.2021, Friday

(Location: Conference Hall, room 101 of the D.GHITU Institute of Electronic Engineering and Nanotechnologies, str. Academiei 3/3 Chisinau, Moldova, room 101, tel.+37322 -737092)

10:00 Opening of the meeting: Welcome speech - Prof. Cojocaru Svetlana, vice-President of the Academy of Sciences of Moldova; Dr. Aliona Onofrei, head of department of politics in research and innovation, Ministry of Education and Research, Republic of Moldova.

10:15-10:40 Prof. Sidorenko Anatolie, coordinator of the SPINTECH project " HORIZON-2020 project SPINTECH – goals, results and prospects of spintronics"

10:40-11:10 Prof. Kordyuk Alexander, Director of Kyiv Academic University, G. V. Kurdyumov Institute for Metal Physics of the N.A.S. of Ukraine, Kyiv. Multiband electronic structure as a key to high temperature superconductivity and new quantum applications.

11:10-11:30 Dr. Mazanik Andrei. Moscow Institute of Physics&Technology, Dolgoprudny, and BLTP, Joint Institute for Nuclear Research, Dubna, Russia. Magnetization dynamics induced by current in SFS  $\phi_0$  Josephson junctions.

#### **11:30-12:00 Coffee break and group photo**

12:30-14:00 Lunch break (KLASSIK, "Hotel Club Service", str. Mihail Kogalniceanu 6, MD 2001, Chisinau)

14:30-15:00 Prof. Lukyancuk Igor, University of Amien, France, coordinator of the "MELON" project. EU projects clustering: collaboration of "MELON" and "SPINTECH" in Artificial Neural Networks.

15:00-15:30 Prof. Vinokur Valery, Argonne National Laboratory, USA. Topological nature of high-temperature superconductivity.

15:30-16:00 Prof. Golubov Alexander University of TWENTE, Enschede, The Netherlands. Josephson and Proximity Effects in SFS Junctions.

#### **16:00-16:30 Coffee break**

16:30-17:00 Prof. Krasnov Vladimir, Stockholm University, Sweden. In-situ analysis of magnetic states S/F heterostructures.

17:00-18:00 Panel discussion of participants with members of the Advisory Board of the SPINTECH Project (IAP - Prof. Achimova Elena, UTM - Prof. Buzdugan Artur, USM- Prof. Nica Denis, RENAM- Dr. Bogatenkov Peter, UTM- Dr. Railean Serghei). Prospects of the follow-up project application.

19:00 Conference dinner

#### Day 3, 11.12.2021, Saturday

(Location: conference hall of the Hotel "KLASSIK" ("Hotel Club Service", str. Mihail Kogalniceanu 26, MD 2001, Chisinau, E-mail: [info@klassikhotel.md](mailto:info@klassikhotel.md), tel. 022 838 388 )

10:30 Dr. Bujor Oleg. National Point of Moldova of the HORIZON-2020 program. Administration, financial management and audit of the HORIZON-2020 projects.

#### **11:00-11:20 Coffee break**

11:20 Discussion of the concept of the novel project. SPINTECH Consortium members.

12:30-13:00 Lunch break

13:00 – 17:00 External session of the Winter School – in the castle "MIMI". Round-table discussion of the problems of spintronics and beyond.