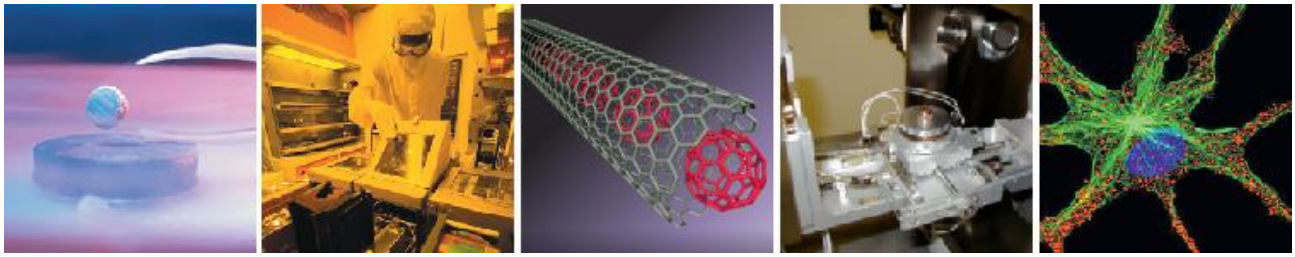
Fysikum

Brain-like Artificial Neural Network: Superconducting Spintronic's Alternative

SPINTECH Summer School,
27-28 Mai 2021, Stockholm, Sweden

This event is supported by the European Union H2020-WIDESPREAD-05-2017-Twinning project "SPINTECH", grant agreement Nr. 810144:

"Boosting the scientific excellence and innovation capacity in spintronics of the D. GHITU Institute of Electronic Engineering and Nanotechnologies, Moldova"



Organizing committee

Prof. Anatolie Sidorenko, IEEN Chisinau, Moldova
Prof. Alexander Golubov, Uni-TWENTE, Enschede, Netherlands
Prof. Vladimir Krasnov, Uni-Stockholm, Sweden
Dr. Oleg Bujor, IEEN Chisinau, Moldova

Location: Seminar room A2:1041 of the Stockholm University, str. Roslagstullsbacken 21 , Stockholm

PROGRAM

27.05.2021, First Day

9:00 - 12:00 Registration of participants in the entrance hall of Stockholm University
14:00 Opening of the Meeting - Coordinator of the SPINTECH project Prof. Anatolie Sidorenko
14:15 Artificial neural networks and superconducting basic elements beyond von Neumann computer. Lecture of Prof. Klenov Nikolai, and Prof. Soloviev Igor (co-reporter), Moscow State University, Russia.

15:00 Coffee break

15:30 More than Moore - Emergent nanomaterials for computing and nanoelectronics. Lecture of Prof. Igor Lukyanchuk, Coordinator of H2020-RISE-MELON project, Amien University, France.

16:00 In-situ analysis of magnetic states in small S/F heterostructures. Lecture of Prof. Vladimir Krasnov, Stockholm University, Sweden.
16:30 Presse-conference "Goals of the EU project SPINTECH and of the SPINTECH-summer school" – prof. A.Sidorenko, Prof.V.Krasnov, Prof. A.Golubov.

18:00 Welcome party.

28.05.2021, Second Day

10:00 Advanced methods of nanostructures fabrication for spintronics. Lecture of Prof. Anatolie Sidorenko, IEEN, Moldova
10:30 Control of the coherent quantum systems. Lecture of Dr.Vsevolod Vozhakov, Moscow State University, Russia.

11:00 Coffee break

11:30 Multi-level modeling of the functional nanostructures. Lecture of Prof. Alexander Vakhrushev, Izhevsk Technical University, Russia.
12:00 Quantum networks based circular superfluid currents of exciton-polaritons. Lecture of Prof. Alexey Kavokin, University of Southampton, UK

12:30 Lunch break

14:00 Quantum criticality tuned by magnetic field. Lecture of Prof. Feo Kusmartsev, Loughborough University, UK
14:30 Josephson effect in junctions superconductor - topological insulator. Lecture of Prof. Alexander Golubov, UTwente, Netherlands

15:00 Round table discussion – all participants.
16:00 End of the meeting

List of participants:

Prof. Anatolie Sidorenko – coordinator of the project (IEEN)
Prof. Vladimir Krasnov – leader of the SU group (SU)
Prof. Alexander Golubov – leader of UTWENTE group
Dr. Elena Condrea – head of the Cryogenic Laboratory, project member (IEEN)
Dr. Roman Morari - project member (IEEN)
Dr. Vladimir Fedorov- project member (IEEN)
Dr. Evgheni Antropov- project member (IEEN)
Dr. Andrei Prepelita - project member (IEEN)
Dr. Alexander Penin- project member (IEEN)
Dr. Oleg Bujor- project member (IEEN)
Dr. Taras Golod- project member (SU)
PhD student Evgenii Borodianskyi, project member (SU)
PhD student Elena Kapran, project member (SU),
PhD student Tairzan Karabbasov- project member (UTWENTE)
PhD student Vladimir Boian, project member (IEEN)
PhD student Maria Lupu - project member (IEEN)
PhD student Margarita Pischenko- project member (IEEN
Researcher Tatiana Prepelita - project member (IEEN)
Researcher Igor Belotserkovschi- project member (IEEN)
Researcher Daniil Karaghenov- project member (IEEN)
Researcher Vladimir Smyslov- project member (IEEN)

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