****

**Greek-Russian Workshop on Quantum Technologies**

***co-organized by***

******

******

****

**Athens, Greece, 1-2 April 2016**

**NCSR “DEMOKRITOS”**

**Friday, April 1**

**Registration**

8.30-9.00 (*Lecture Hall 3/Building 8)*

**Welcome address**

9:00-9:10 Dr. Nikolaos KANELLOPOULOS, Chairman of the Board and Director of NCSR “DEMOKRITOS”

**Session I: Quantum Nanoelectronics**

*Chair:* *D. CHARALAMBIDIS*

9:10-9:30 Konstantin ARUTYUNOV (MIEM, National Research University Higher School of Economics, Moscow Institute of Electronics and Mathematics*,*) *"Nano-scale superconductivity"*

9:30-9:50 Panagiotis ARGITIS (National Center for Scientific Research “DEMOKRITOS”) *"Molecular interfacial layers for organic optoelectronics"*

9:50-10:10 Valery RYAZANOV (Chernogolovka) *"Coherent and nonequilibrium phenomena in hybrid Josephson structures"*

10:10-10:30 George DELIGIORGIS (FORTH, Foundation for Research and Technology - Hellas) *"Graphene and CNT transistors"*

10:30-10:50 Georgy GOLTSMAN (MGPU, Moscow State Pedagogical University) *“Single photon detectors”*

10:50-11:10 Andrei ZAIKIN (LPI RAS, Lebedev Physical Institute of the Russian Academy of Sciences) *“Quantum fluctuations in superconducting nanowires"*

11:10-11:40 *Coffee Break*

**Session II: Quantum Information – Communication**

*Chair:* *G. TSIRONIS*

11:40-12:00 Alexey USTINOV (MISIS, National University of Science and Technology, Moscow) *"Superconducting quantum circuits"*

12:00-12:20 Oleg ASTAFIEV (MPTI, Moscow Institute of Physics and Technology) *"Quantum optics on-chip"*

12:20-12:40 Georgios NIKOLOPOULOS (FORTH, Foundation for Research and Technology - Hellas) *“Quantum communication & cryptography”*

12:40-13:00 Evgenii ILICHEV (NGTU, Novosibirsk State Technical University) *"Quantum detectors and amplifiers*"

13:00-14:10 *Lunch Break (Library – Exhibition Center – Building 15)*

**Session III:** **Photonics**

*Chair:* *K. ARUTYUNOV*

14:10-14:30 Alexander SERGEEV (IAP RAS, Institute of Applied Physics of the Russian Academy of Sciences) *“Subexawatt Laser Project XCELS”*

14:30-14:50 Ildar GABITOV (Skoltech,Skolkovo Institute of Science and Technology) *"Polarization switching on rf-SQUID based metasurfaces"*

14:50-15:10 Stavros PISSADAKIS (FORTH, Foundation for Research and Technology - Hellas) *“Photonics in Greece, research directions and prospects”*

15:10-15:30 Dimitris CHARALAMBIDIS (University of Crete and FORTH, Foundation for Research and Technology - Hellas) *“Ultrafast dynamics, femto-, atto- and all that”*

15:30-15:50 Pavlos SAVVIDIS (Univ. of Crete and FORTH, Foundation for Research and *Technology - Hellas) “Manipulating polariton condensates on a chip”*

15:50-16:10 Pavlos LAGOUDAKIS (Skoltech,Skolkovo Institute of Science and Technology) *“Engineering polariton simulators”*

16:10-16:30 Dimitris SYVRIDIS, (University of Athens) “Non-linear dynamics of coupled semiconductor lasers with applications in secure communications and sensing”

16:30-17:00 *Coffee Break*

**17.00 – 18.00 Workshop addresses\*** (*Lecture Hall 3/Building 8)*

*Chair:* N.KANELLOPOULOS

17:00-17:10 Prof. Thomas MALOUTAS, General Secretary for Research and Technology

17:10-17:20 Penelope-Maria SPILIOTI, Head of the directorate for International Research and Technology Collaborations, General Secretariat for Research and Technology

17:20-17.30 Prof. Spiros ANASTASIADIS, Director of FORTH-IESL

17:30-17:40 Ludmila OGORODOVA, Deputy Minister of Education and Science of the Russian Federation

17:40-17:50 Irina KUKLINA, Executive Director International Centre for Innovation in Science Technology &Education

17:50-18:00 Dmitry KOROTKOV, Head of Division Department of Science and Technology

*\** Ιn the Presence of Vladimir MAKSIMOV, Scientific Attaché – Embassy of the Russian Federation

**Saturday, April 2**

**Session IV:** **Quantum Materials**

*Chair:* *A. USTINOV*

9:00-9:20 George TSIRONIS (University of Crete and FORTH, Foundation for Research and Technology - Hellas) *“Quantum Meta-materials”*

9:20-9:40 Sergei MUKHIN (National Univ. of Science and Technology, Moscow) *“Instantonic states of resonator with Majorana fermions”*

9:40-10:00 George NEOFOTISTOS (University of Crete) *“Chimera states in magnetically driven SQUID metamaterials”*

10:00-10:20 George KONSTANDINIDIS (FORTH, Foundation for Research and Technology - Hellas) *“Hybrid superconductor/2DEG nanostructures”*

10:20-10:40 *Coffee Break*

10:40-12:00 *Demokritos Labs visit*

12:00-12:30 Common session of the four working groups (pillars). Defining working modus and task allocation (*Lecture Hall 3/Building 8)*

12:30-13:30 *Lunch Break (Library – Exhibition Center – Building 15*)

13:30-14:30 Separate editorial meetings of the four working groups *(Library – Exhibition Center – Building 15)*

14:30-15:20 Common session of the four working groups

Reporting of the working group coordinators (*Lecture Hall 3/Building 8)*

15:20-17:15 Finalizing the collaboration program proposal document. Further actions

17:15-17:30 Closing remarks, Dr. Maria DOUKA, Scientific Advisor, Office of the Alternate Minister for Research and Innovation

***End of the Workshop***