

The scientific program of ICNMP-2020

27.01.2020 Monday

9⁰⁰ – 9¹⁵ - Opening ceremony

“Nanophotonics and plasmonics”. Chairman Prof A. Kavokin

9¹⁵ – 9⁴⁵ - *“Polariton lasing in Organic Semiconductors”*

prof. Ifor Samuel, University of St Andrews, UK

9⁴⁵ – 10¹⁵ - *“Polaritons as a platform for quantum optics”*

prof. Vincenzo Ardizzone, CNR Nanotec, Italy

10¹⁵ – 10⁴⁵ - *“Topological and localized phases of interacting excitons”*

prof. Alexander Poddubny, Ioffe Institute, Russia

10⁴⁵ – 11⁰⁵ – coffee break

“New functional materials for electronics and photonics”.

Chairman Prof. I. Samuel

11⁰⁵ – 11⁴⁵ - *“Spatial dispersion in wire medium”*

Prof. Pavel Belov, ITMO University, Russia

11⁴⁵ – 12¹⁵ - *“Printed Electronics from Solution-Processed 2D Materials”*

Dr. Toby Hallam, Newcastle University, UK

12¹⁵ – 12⁴⁵ - *“Laser synthesis of 2D materials in ambient conditions”*

Dr. Mailis Sakellaris, Skoltech University, Russia

12⁴⁵ – 14³⁰ – lunch at the Grand Hotel Iberostar Trinidad

The special symposium “State of the art developments in MRI”.

Chairman Prof. C. Mirabal

14³⁰ – 15¹⁰ - *“The sense of the development of MRI”*

Prof. Carlos Cabal Mirabal, University of Havana, Cuba

15¹⁰ – 15⁴⁰ - *“Magnetic Resonance without Magnets - Optical Magnetometers for Advanced Chemo- and Bio-sensing”*

Dr. Danila Barskiy, University of California, USA

15⁴⁰ – 16¹⁰ - *“Quantitative MR Imaging for the follow-up of Neuromuscular disorders : the issue of images segmentation”*

Dr. David Bendahan, Aix-Marseille University, France

16¹⁰ – 16³⁰ – a coffee break

The special symposium “State of the art developments in MRI”.

Chairman prof. Dr. Alexander Makurenkov

16³⁰ – 17¹⁰ - *“Hyperpolarized noble gases as MRI contrast agents for pulmonary diagnostics and engineering applications”*

Prof. Thomas Meersmann, University of Nottingham, UK

17¹⁰ – 17⁴⁰ - *“Towards scoring sodium in patients with diabetes mellitus using ²³Na MRS and MRI”*

Dr. Galina Pavlovskaya, University of Nottingham, UK
17⁴⁰ – 17⁵⁵ - “*Longitudinal MRI from birth to adulthood reveals genotype and treatment effects on brain development in a Down syndrome mouse model*”
Dr. Greetje Vande Velde, University of Leuven, Belgium

28.01.2020 Tuesday

“Many-body physics”. Chairman Prof. A. Poddubny

9⁰⁰ – 9⁴⁰ - “*Novel phase transitions in disordered quantum systems*”
prof. Georgy Shlyapnikov, LPTMS, CNRS, France
9⁴⁰ – 10²⁰ “*Spin-Polarized Polariton Condensates and Lattices*”
prof. Pavlos Savvidis, Westlake University, China
10²⁰ – 10⁵⁰ - “*Spin phenomena in perovskite crystals and nanocrystals*”
Prof. Dmitri Yakovlev, TU Dortmund, Germany

10⁵⁰ – 11¹⁰ – coffee break

The special symposium “State of the art developments in MRI”. Chairman Dr. Alexey Slobozhaniuk

11¹⁰ – 11⁵⁰ - “*International SuperMRI consortium: principle ideas and goals*”
Prof. Yuri Pirogov/Dr. Alexander Makurenkov, MSU, Russia
11⁵⁰ – 12⁰⁵ - “*New contrast and non-contrast magnetic resonance imaging methods to study myocardial tissue composition*”
Dr. Anna Naumova, University of Washington
12⁰⁵ – 12⁴⁵ - “*Opportunities for metamaterials in medical imaging*”
prof. Stefan Enoch, Aix-Marseille University, France
12⁴⁵ – 13⁰⁰ - “*RF-coil with variable resonant frequency for multiheteronuclear MRI*”
Dr. Michael Zubkov, ITMO University, Russia
13⁰⁰ – 14⁴⁰ – a lunch in the hotel Iberostar Grand Trinidad hall

The special symposium “State of the art developments in MRI”. Chairman Dr. Alena Shchelokova

14⁴⁰ – 15¹⁰ - “*Semi-analytical model for high permittivity dielectric resonators*”
Dr. Redha Abdeddaim, Fresnel Institute, France
15¹⁰ – 15²⁵ - “*All-dielectric resonators for targeted clinical MRI*”
Dr. Alexey Slobozhaniuk, ITMO University, Russia
15²⁵ – 15⁴⁰ - “*Metamaterial inspired volumetric wireless coil for extremities imaging at 1.5T*”
Dr. Alena Shchelokova, ITMO University, Russia

18⁰⁰ -20⁰⁰ – **conference banquet**

29.01.2020 Wednesday

The full day excursion. The meeting point is at the lobby of the Grand Hotel Iberostar Trinidad at 9 am.

30.01.2020 Thursday

“Quantum Technologies”. Chairman prof. G. Shlyapnikov

9⁰⁰ – 9⁴⁰ - “*t.b.a.*”

prof. Pavlos Lagoudakis, Skoltech University, Russia

9⁴⁰ – 10²⁰ - “*Split-ring polariton condensates: new physics and applications*”

prof. Alexey Kavokin, Westlake University, China

10²⁰ – 10⁵⁰ “*QKD networks with active routing*”

Dr. Yury Kurochkin, RQC, Russia

10⁵⁰ – 11¹⁰ – coffee break

“Coherent light sources and photovoltaics”. Chairman prof. P.Belov

11²⁵ – 12⁰⁵ - “*Vertical external cavity surface emitting lasers*”

Prof. Vasilis Apostolopoulos, University of Southampton, UK

12⁰⁵ – 12¹⁵ - “*Perovskites for Photovoltaic Applications*”

Prof. Giuseppe Eramo, Mediterranean Institute of Fundamental Physics, Italy

12¹⁵ – 12³⁵ - “*Nanocomposite metamaterials based on titanium dioxide rolls with embedded gold nanoparticles for photovoltaic applications*”

Anton Osipov, Vladimir State University, Russia

12³⁵ – 12⁵⁰ - “*tba*”

Dr. Alexander Makurenkov, MSU, Russia

12⁵⁰ – 14²⁰ – lunch at the Grand Hotel Iberostar Trinidad

“Light-matter interactions in solids”. Chairman Prof. P. Savvidis

14²⁰ – 14³⁵ - “*Coherent exciton spectroscopy in high-quality quantum wells*”

Dr. Artur Trifonov, Saint-Petersburg State University, Russia

14³⁵ – 14⁵⁰ - “*Excitons in linear carbon chains*”

Dr. Stella Kutrovskaya, Westlake University, China

14⁵⁰ – 15²⁰ - “*High-Q resonances inspired by bound states in the continuum*”

Dr. Andrey Bogdanov, ITMO University, Russia

15²⁰ – 15⁵⁰ - “*Semiconductor Optical Fibers*”

Dr. Noel Healy, Newcastle University, UK

15⁵⁰ – 16⁰⁵ - “*Dynamically Tunable Hybrid Silicon/Phase Change Optical Metasurfaces*”

Ivan Sinev, ITMO University, Russia

16⁰⁵ – 16²⁰ - “*Photosensitive free-standing ultra-thin carbyne-gold films*”

Vlad Samyshkin, Vladimir State University, Russia

Closing session, cocktail