

NTR 2008

Program

Sunday, October 5.

15:00 – 17:30 Transfer from Marseille (Hotel IBIS St.Charles) to Porquerolles.

19:00 – Dinner

20:00 – 22:00 Informal **discussion** with participation of A.A.Fursenko,
Minister of Education and Research of RF.:
Cooperation of Russian Research Organizations with Russian Scientific Diaspora.

Monday, October 6

Morning session

9:00 – 9:20 V.Safarov, Co-president of the Workshop, France
Welcome

9:20 – 9:50 A.AFursenko, Minister of Education and Research, RF
Welcome

9:50 – 10:00 W.Marine
Information of Local Organizing committee.

10:00 – 10:30 *Coffee break*

10:30 – 11:15 V.Shalaev, Purdue University. USA
Meta materials

11:15 – 12:00 B. N. Chichkov, Laser Zentrum, Hannover, Germany
3D laser-based nanofabrication for applications in photonics and biomedicine

12:00 *Lunch*

Afternoon session

16:00 – 16:45 L.Belova Stockholm, Sweden
Nanotechnology in biology and life sciences

16:45 – 17:30 I.Medina. Centre de Neurosciences de Marseille. France
Neurosciences and Physics

17:30 – 17:45 *Coffee break*

17:45 – 18:30 A.Archakov, Institute of Biomedical Chemistry. RF
Analytical Nanotechnology on the way to reverse Avogadro number

19:00 *Dinner*

Tuesday, October 7

Morning session

- 9 :00 – 9:45 Yekimov A, Nano Light Co. USA
Quantum Confinement of Phonons and Energy Dissipation
in Nano Electronics Devices
- 9 :45 – 10:15 Krivoslykov S. G. ALTAIR Center, LLC and ANTEOS, Inc, USA
All-Optical Components based on Photonic Crystals with Semiconductor
Nanocrystals. Photovoltaic effect in semiconductor nanocrystals embedded
into amorphous silicon p-n junction
- 10:15 – 10:45 Chirvony V.S. Technical University of Valencia, SPAIN
Silicon nanocrystals as possible photosensitizer for singlet Oxygen production.
- 10:45 – 11:00 *Coffee break***
- 11:00 – 11:30 Chipouline A., Ultra-Optics Center, Jena, Germany
The dispersion relation of light in metamaterials: An analytical approach.
- 11:30 – 12:00 Popov A. K, University of Wisconsin-Stevens Point, U.S.A.
Nonlinear optics, compensating losses, quantum control and mirrorless optical
parametric oscillations in negative-index metamaterials.

12:00 *Lunch*

Afternoon session

- 16:00 – 16:45 Luk`yanchuk B.S., Data Storage Institute, Singapore
Plasmon resonances and field enhancement at light scattering
by spherical particles with radial anisotropy
- 16:45 – 17:30 Dyakonov M.I., Université de Montpellier 2, Montpellier, France
Can we have and do we need quantum computing
- 17:30 – 17:45 *Coffee break***
- 17:45 – 18:30 Safarov V.I., CINaM, Marseille, France
Semiconductor Spintronics

19:00 *Dinner*

Wednesday, October 8

Morning session

- 9:00 – 9:45 Bykov V.A, NT-MDT, RF
NANOFABS – basic systems for new development in the field of
nanoelectronics and micro-, nao- mechanics
- 9:45 – 10:15 Khomthenko E. V. Technical University of Denmark
DUNCHIP – your partner in the nanoworld
- 10:15 – 10:30 *Coffee break***
- 10:30 – 11:00 Kalyuzhnyi Sergey.V.; Ivanov O.V. RusNanoCorp. RF
RusNanoCorporation: new player in commercialization of nanotechnologies
- 11:00 – 11:30 Berba M, Standa Co. Italy.
STANDA development and research
- 12:00 *Lunch***
- 14:00 Departure – Excursion – Site seeing

- 17:30 **Round Table**
Ways of innovations: Academic research – Start-Up – Industrial implementation

- 19:00 *Conference Dinner***

Thursday, October 9

Morning session

- 9 :00 – 9:45 Demokritov S. O. University of Muenster, Germany
Nano-Optics with Spin Waves at Microwave Frequencies
- 9 :45 – 10:15 Zaikin A. Forschungszentrum Karlsruhe, Germany
Quantum transport and interactions in metallic nanostructures
- 10:15 – 11:45 Latyshev A.V. Inst of Semicond.Phys. Novosibirsk, RF
Diagnostic and Nanofabrication of Semiconductor Nanostructures

10:45 – 11:00 *Coffee break*

- 11:00 – 11:30 Korkin A. Arizona St. Univ., NGS Co, USA
Computational Atomic Scale Materials Design:
Bridging Theory and Experiment, Scales and Areas of Application
- 11:30 – 12:00 Fedoruk Mikhail, Inst of Computational Technologies Novosibirsk, RF
Advanced numerical simulation of complex physical processes

12:00 *Lunch*

Afternoon session

- 16:00 – 16:45 A. V. Rode et al, The Australian National University, Australia
Photophoretic trapping and guiding of nanoclusters by vortex beams
- 16:45 – 17:15 Kanaev A. V. CNRS. France
Nanocoatings and nanohybrids for photonic applications: engineering aspects

17:15 – 17:30 *Coffee break*

- 17:30 – 18:00 Kargin N. Karpov Institute of Physical Chemistry, RF
Optical and Morphological Properties of Thin SiC Films
grown on Silicon by Pulsed Laser Deposition
- 18:00 – 18:30 Stepanov Andrey, Lazer Zentrum Hannover, Germany
Synthesis of metal nanoparticles in dielectrics by low energy ion implantation
- 18:30 – 19:00 Safaraliev G.K., Bilalov B.A. Dagestan Univ., RF
The formation of nanodimensional structures
on base of silicon carbide solid solution with aluminum nitride

19:00 *Dinner*

Friday, October 10

Morning session

- 9:00 – 9:45 Turitsyn S. K., Aston University UK.
Ultra-long fibre lasers
- 9:45 – 10:15 Fotiadi A., Faculté Polytechnique de Mons, Belgium
Brillouin assisted Q-switched fiber lasers
- 10:15 – 10:45 Okhrimchuk A.G., Aston University UK.
Inscription of depressed cladding waveguides in laser crystals
by IR femtosecond pulses.

10:45- 11:00 Coffee break

- 11:00 – 11:30 Juschkin Larissa, RWTH Aachen University, Germany
EUV for nanotechnology – use of short wavelength radiation for metrology
and structuring
- 11:30 – 12:00 Boltasseva A. Technical University of Denmark
Metal-dielectric components for nano- and meta-photonics
- 12:00 – 12:30 Kabashin Andrei V, CNRS, France
Laser ablation-based nanofabrication

12:30 Lunch

17:30 **General Discussion** : Russian Scientific Diaspora – what future.

19:00 Dinner

Saturday, October 11

9:00 Departure for Marseille

12:00 Arrival to Marseille (la Gare St.Charles)