

SCHOOL ON ADVANCED LIGHT-EMITTING
AND OPTICAL MATERIALS

SLALOM 2019

12-13 December 2019

St. Petersburg,

9 Lomonosova str., 1216 (Main Hall)

9.45 - 18.00

Advanced light-emitting and optical materials, including metamaterials, is a platform for **future breakthroughs** in telecommunications, quantum computing, displays, photovoltaics, and biophotonics.

SCHOOL PROGRAM



THURSDAY, 12 DECEMBER

09:45-10:00	Opening ceremony	
10:00 - 11:00	BERNARD GIL From bulk BN to BN monolayer, from indirect excitons to direct ones	PLENARY
11:00 - 11:20	Coffee break	
Session: Photovoltaics and Optoelectronics		
11:20-11:45	SARA PES CETELLI 2D material for perovskite solar cells and large area modules	INVITED
11:45-12:10	YURIY GLADYSH Single-walled carbon nanotubes: synthesis and optoelectronic applications	INVITED
12:10-12:25	ALEXEY TSAPENKO Aerosol-assisted fine-tuning of optoelectrical properties of single-walled carbon nanotube films	ORAL
12:25-12:40	PAVEL VOROSHILOV Solar cells improved by nanoantennas	ORAL
12:40-12:55	DMITRY KRAKHIN First Russian Fab for BIPV Photovoltaics	ORAL
13:00 - 14:00	Lunch	
Session: Applications of nanomaterials		
14:00-14:15	DMITRY GETS The role of ion migration in dual-functional perovskite-based devices	ORAL
14:15-14:30	ANATOLY PUSHKAREV Synthesis and chemical doping of high-quality CsPbBr ₃ nanolasers	ORAL
14:30-14:55	ELENA GRACHOVA Design of multicolor molecular emitters based on transition metal complexes for single-molecule-based (SMB) materials	INVITED
14:55-15:10	DENIS KOLCHANOV Inkjet printing of magnetite nanoparticles	ORAL
15:10-15:25	ELENA USHAKOVA Carbon dots - novel fluorophores for bioimaging	ORAL
15:30-15:50	Coffee break	
Session: Thin Film Transistor & Printing technologies		
15:50-16:05	BORIS GALKIN The world-first small-scale contract manufacturing of flexible TFT-electronics: large-area arrays & plastic ICs	ORAL
16:05-16:30	DMITRY YAKOVLEV Inkjet printing of nanoparticles for Solar windows	INVITED
16:30-16:55	SOFIA MOROZOVA Inkjet printing of functional materials	INVITED
16:55-17:10	IGNATIY ADAMANTOV Printed electroluminescent devices for printed packaging applications	ORAL
17:10-17:25	ANTON KUZENKOV Russian R&D center of printed electronics	ORAL

FRIDAY, 13 DECEMBER

10:00-11:00	ANVAR ZAKHIDOV Reconfigurable perovskite PV and LEC: Internal p-i-n Junctions and External Ionic gating	PLENARY
11:00 - 11:20	Coffee break	
Session: Fundamentals of nanomaterials		
11:20-11:45	IVAN IORSH Interaction of transition metal dichalcogenides with metasurfaces. Strong light-matter coupling and nonlinear optical response	INVITED
11:45-12:10	ANTON ZASEDATELEV Ultra low energy polariton condensate switch	INVITED
12:10-12:35	SERGEY MAKAROV Up-scaling of advanced light-emitting nanophotonic designs	ORAL
12:25-12:40	YURI KAPITONOV Free and self-trapped excitons in low-dimensional halide perovskites	ORAL
13:00 - 14:00	Lunch	
Session: Fundamentals of nanomaterials 2		
14:00-14:25	ALEXEY TAMEEV Nanosize effects in photo- and conductive hybrid composites	INVITED
14:25-14:50	NATALIA KRYZHANOVSKAYA Direct modulation characteristics of microdisk lasers with InGaAs/GaAs quantum well-dots	INVITED
14:50-15:05	MIHAIL PETROV Collective Mie-resonances for light emission enhancement from Si(Ge) quantum dots	ORAL
15:05-15:20	ALEXANDRA KALASHNIKOVA Fast switching of electronic and optical properties of nanostructures by light and strain pulses	ORAL
15:20-16:00	Poster session + Coffee-break	
16:00-17:30	Discussion (round table): 'From Science to Industry'	
17:30-17:45	Closing ceremony	

BE in **LOV** 
with physics