Nonlinear Photonics
International Summer School
August 25-27, 2020, Novosibirsk State University (Novosibirsk time – UTC+7/GMT+7)

PROGRAMME

Tuesday, August 25	Wednesday, August 26	Thursday, August 27
14:45 – 15:00 **Opening**		14:00 – 15:00 **Aleksey Zheltikov** *Ultrabroadband nonlinear optics driven by ultrashort mid-infrared pulses*
Photonics and Communications	**Nanophotonics & Metamaterials**	**Nonlinear Physics**
15:00 – 16:00 **Grigoriy Falkovich** *Physical nature of information*	15:00 – 16:00 **Boris Chichkov** *Laser printing of resonant nanoparticles*	15:00 – 16:00 **John Dudley** *Perspectives in nonlinear guided wave optics – new waveguides, new sources, new applications*
16:00 – 17:00 **Francesco Tani** *Light matter interaction in hollow-core fibres*	16:00 – 17:00 **Costantino De Angelis** *Harmonic generation and photon management at the nanoscale in AlGaAs nanoantennas and metasurfaces*	16:00 – 17:00 **Stephane Randoux** *Nonlinear propagation of one-dimensional waves: some recent experimental results*
Emerging Photonic Techniques	**Nanophotonics & Metamaterials**	**Emerging Photonic Techniques**
17:00 – 18:00 **Magnus Karlsson** *Advances in optical parametric amplification*	17:00 – 18:00 **Boris Lukyanchuk** *High order fano resonances and extreme effects in dielectric microspheres*	17:00 – 18:00 **Natalia Berloff** *Unconventional computing with liquid light*
18:00 – 19:00 Break	18:00 – 19:00 Break	18:00 – 19:00 Break
Nanophotonics & Metamaterials	**Spatio-Temporal Dynamics**	**Lasers Science and Applications**
19:00 – 20:00 **Misha Sumetsky** *Nonlinear surface nanoscale axial photonics*	19:00 – 20:00 **Alejandro Aceves** *Coherent beam combining and other applications in multi-core fibers*	19:00 – 20:00 **Frank Wise** *Spatiotemporal mode-locking: experiments and modelling*
20:00 – 21:00 **Sasha Boltasseva** *Emerging nanophotonic materials: from tailorable properties to novel nonlinear optics and meta-devices*	20:00 – 21:00 **Darko Zibar** *Advancing classical and quantum optical communication systems with machine learning*	20:00 – 21:00 **Pavel Mamyshev** *Fundamentals of nonlinear fiber optics and its applications for ultrashort pulse generation*
		21:00 – 21:15 **Closing**

We would propose circa 50-55-minute lectures and 5-10 minutes for questions, that will be submitted via Zoom chat during the lecture.
However, this is flexible and lecturer can take instead the whole time slot and ask for questions to be sent via emails.