

Saratov Fall Meeting SFM'26

**14th International Symposium “Optics and
Biophotonics”**

**30th International School for Junior Scientists
and Students on Optics, Laser Physics &
Biophotonics**



CONFERENCE SPONSORS



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ИНЖЕКТ
РОСАТОМ

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Schedule of SFM-26

September 21, Monday		
Saratov time UTC+4		
11.00-13.00	REGISTRATION	Building 3, 1 st floor
14.00-14.45	MODERN OPTICS: PUBLIC LECTURE SESSION I SHORT COURSE SFM-26 Chairs: Ekaterina Lazareva, Saratov State Univ., Russia, Dmitry A. Gorin, Skoltech, Moscow, Russia	Building 8, Room 420
	CREATION OF BIOMATERIALS WITH CONTROLLED PROPERTIES: HOW CAN NATURE HELP US? Gleb B. Sukhorukov, Skolkovo Institute of Science and Technology, Skoltech; Life Improvement by Future Technologies, LIFT Center, Moscow, Russia	
September 22, Tuesday		
9.30-13.00	REGISTRATION	Building 10
10.30-11.00	Coffee break	
11.00-12.30	PLENARY SESSION I Chairs: Valery V. Tuchin, Saratov State Univ.; Alexander V. Priezzhev, Lomonosov Moscow State Univ., Russia	Building 10, Main Hall
11.00-11.10	WORDS OF WELCOME TO THE PARTICIPANTS OF SFM-26 Valery V. Tuchin, Saratov State Univ.	
11.10-11.50	CELL STIMULATION AND DELIVERY VIA REMOTE CONTROLLED COLLOIDS Gleb B. Sukhorukov, Skolkovo Institute of Science and Technology, Skoltech; Life Improvement by Future Technologies, LIFT Center, Moscow, Russia	
11.50-12.30	MULTIMODAL NONLINEAR OPTICAL IMAGING: INTEGRATING FLIM, SUPER-RESOLUTION, AND LABEL-FREE CONTRAST FOR BIOMEDICAL APPLICATIONS Junle Qu, Medical Photonics Innovation Institute, College of Physics and Optoelectronic Engineering, Shenzhen University, Shenzhen, China	
	SPONSOR SESSION I Chairs: Valery V. Tuchin, Saratov State Univ.; Alexander V. Priezzhev, Lomonosov Moscow State Univ., Russia	

12.30-12.50	CUSTOMIZATION OF FLIM SYSTEMS: SELECTION OF HARDWARE CONFIGURATIONS FOR SPECIFIC SCIENTIFIC TASKS Anton Pavlikov, Scientific Microscopy, Biovitrum LLC, Moscow, Russia	
12.50	GENERAL PHOTO OF THE PARTICIPANTS	<i>In front of the Building 10</i>
13.00-14.00	A TOUR OF THE RESEARCH LABORATORIES OF THE DEPARTMENT OF OPTICS AND BIOPHOTONICS AND THE SCIENCE MEDICAL CENTER	<i>Building 3, 8</i>
14.00-16.00	LUNCH	
16.00-18.20	PLENARY SESSION II Chairs: Valery V. Tuchin, Saratov State Univ.; Alexander V. Priezzhev, Lomonosov Moscow State Univ., Russia	<i>Building 10, Main Hall</i>
16.00-16.40	MULTIFUNCTIONAL IRON OXIDE NANOPARTICLES: MRI CONTRAST AND LIGHT INDUCED DISSOLUTION Dmitry A. Gorin, Skolkovo Institute of Science and Technology, Skoltech, Moscow, Russia	
16.40-17.20	SPECTROSCOPY OF ASTROPHYSICAL ICE ANALOGUES: FROM THE MOST COMMON MOLECULES TOWARD SEEDS OF LIFE IN SPACE Kirill Zaytsev, Prokhorov General Physics Institute of RAS, Moscow, Russia	
17.20-17.50	Coffee break	
17.50-18.30	ENDOGENOUS FLUORESCENCE OF TISSUES: NEW MECHANISMS AND CLINICAL TRANSLATION Evgeny Shirshin, Lomonosov Moscow State University, Moscow, Russia	
18.30-18.50	SPONSOR SESSION II	
18.30-18.50	IN VIVO OPTICAL IMAGING SYSTEMS Sergey E. Chalov, LUMINON™ IE Chalov S.E., Moscow, Russia; Wuhan BIOVIVO Biotechnology Co., Ltd., China	
19.00-22.00	WELCOME PARTY	<i>Building 11</i>

September 23, Wednesday

10.00-13.00	PLENARY SESSION III Chairs: Dmitry A. Gorin, Skoltech, Moscow, Russia, Evgeny A. Shirshin, Lomonosov Moscow State University, Moscow, Russia	<i>Building 10, Main Hall</i>
10.00-10.40	COMPUTING WITH QUANTUM FLUIDS OF LIGHT Pavlos Lagoudakis , Skolkovo Institute of Science and Technology, Skoltech, Moscow, Russia	
10.40-11.20	ADVANCES IN OPTICAL AND OPTOACOUSTIC IMAGING Vasilis Ntziachristos , Technical University of Munich, Munich, Germany	
11.20-13.00	INVITED LECTURE/ORAL/ON-LINE SESSION BIOPHYSICS I / INTERNET BIOPHOTONICS I Chair: Ivan A. Bratchenko, Immanuel Kant Baltic Federal University, Russia; Andrey Dunaev , Orel State University, Orel, Russia	
10.00-15.30	INVITED LECTURE/ORAL SESSIONS TERAHERTZ OPTICS & BIOPHOTONICS/ ADVANCED MATERIALS Chairs: Kirill I. Zaytsev, Arsenii A. Gavdush, Nikita V. Chernomyrdin, Prokhorov General Physics Institute of RAS, Bauman Moscow State Technical Univ., Russia	<i>Online</i>
12.00-18.30	INVITED LECTURE/ ORAL SESSIONS OPTICAL AND BIOMEDICAL ENGINEERING Chairs: Igor Fufurin, Igor Golyak, Bauman Moscow State Technical Univ., Russia	<i>Building 8, Room 201</i>
11.00-12.30	ON-LINE / ORAL SESSION LOW- DIMENSIONAL STRUCTURES I Chair: Olga Glukhova, Saratov State Univ., Russia	<i>Building 8, Room 318</i>
12.00-19.00	INVITED LECTURE/ORAL SESSION NANOBIPHOTONICS II Chair: Nikolai G. Khlebtsov, IBPPM RAS, Saratov State Univ., Russia	<i>Building 9, Conf. Hall</i>
13.00-14.30	INVITED LECTURE/ ORAL SESSION MACHINE LEARNING I Chairs: Igor K. Lednev, Univ. at Albany, USA, Yury V.Kistenev, Tomsk State Univ., Russian Federation	<i>Online</i>
13.00-14.00	LUNCH	
14.00-18.00	INVITED LECTURE/ORAL/ON-LINE SESSION LASER PHYSICS AND PHOTONICS Chair: Vladimir L. Derbov, Saratov State Univ., Russia	<i>Building 10, Hall 503</i>
14.00-18.15	INVITED LECTURE/ORAL/ON-LINE SESSION BRILLOUIN SPECTROSCOPY	<i>Building 8, Room 005</i>
14.00-16.00	INVITED LECTURE/ORAL/ON-LINE SESSION BIOPHYSICS II / INTERNET BIOPHOTONICS II Chair: Alexander V. Priezzhev, Andrei E. Lugovtsov, M.V. Lomonosov Moscow State University, Russia	<i>Building 10, Main Hall</i>

14.00-17.30	INVITED LECTURE/ ORAL SESSIONS HISTORY, METHODOLOGY AND PHILOSOPHY OF THE OPTICAL EDUCATION Chair: Boris A. Medvedev , Saratov State Univ., Russia	<i>Scientific Library Conf. Hall</i>
15.00-18.30	ON-LINE INVITED LECTURE /ORAL SESSION SPECTROSCOPY AND MOLECULAR MODELING I Chair: Lev M. Babkov , Saratov State Univ., Russia	<i>Building 8, Room 216</i>
16.00-16.30	Coffee break	<i>Building 10, 2nd floor</i>
16.30-19.00	INVITED LECTURE/ORAL/ON-LINE SESSION BIOPHYSICS III Chair: Alexander V. Priezzhev , Andrei E. Lugovtsov , M.V. Lomonosov Moscow State University, Russia	<i>Building 10, Main Hall</i>
20.00-23.00	EVENING BOAT TRIP - THE LIGHTS OF SARATOV	

September 24, Thursday

9.00-13.00	INVITED LECTURE/ ORAL SESSIONS BIOPHYSICS IV Chairs: Valery V. Tuchin , Saratov State Univ., Russia; Oleg Vasyutinskii , Ioffe Institute, St.Petersburg, Russia	<i>Building 10, Room 503</i>
10.00-13.45	INVITED LECTURE/ORAL SESSIONS TERAHERTZ OPTICS & BIOPHOTONICS/ ADVANCED MATERIALS Chairs: Kirill I. Zaytsev , Arsenii A. Gvdush , Nikita V. Chernomyrdin , Prokhorov General Physics Institute of RAS, Bauman Moscow State Technical Univ., Russia	<i>Online</i>
11.00-12.30	ON-LINE / ORAL SESSION LOW-DIMENSIONAL STRUCTURES Chair: Olga Glukhova , Saratov State Univ., Russia	<i>Building 8, Room 318</i>
11.30-12.00	Coffee break	<i>Building 10, 2nd floor</i>
13.00-14.00	LUNCH	
14.00-15.00	MODERN OPTICS: PUBLIC LECTURE SESSION II Chair: Georgy V. Simonenko , Saratov State Univ. THE ADVENTURE OF PHOTONS IN THE SKY AND ON EARTH: WHO IS STRONGER THAN LIGHT SCATTERING OR ABSORPTION? Dmitry Gorin , Skolkovo Institute of Science and Technology, Moscow, Russia	<i>Building 3, Big Physical Hall</i>
14.00-17.30	ROUND-TABLE DISCUSSION EDUCATION Chair: Boris Medvedev , Saratov State Univ., Russia	<i>Scientific Library Conf. Hall</i>

14.00-16.45	ORAL SESSION ELECTROMAGNETICS Chair: Michael V. Davidovich, Saratov State Univ., Russia			Building 8, Room 318
14.00-16.00	ORAL SESSION NONLINEAR DYNAMICS Chairs: Galina I. Strelkova, Andrei V. Slepnev, Saratov State Univ., Russia			Building 3, Room 38
15.00-18.00	ON-LINE INVITED LECTURE /ORAL SESSION SPECTROSCOPY AND MOLECULAR MODELING I Chair: Lev M. Babkov, Saratov State Univ., Russia	Building 8, Room 216	INVITED LECTURE/ ORAL SESSIONS BIOPHYSICS V Chairs: Mikhail Yu. Kirillin; Gaponov-Grekhov Institute of Applied Physics of the Russian Academy of Sciences, Nizhny Novgorod, Andrei E. Lugovtsov ; M.V. Lomonosov Moscow State University, Moscow, Russia	Building 10, Room 503
15.00-18.00	INVITED LECTURE/ORAL SESSIONS TERAHERTZ OPTICS & BIOPHOTONICS/ ADVANCED MATERIALS Chairs: Kirill I. Zaytsev, Arsenii A. Gavdush, Nikita V. Chernomyrdin, Prokhorov General Physics Institute of RAS, Bauman Moscow State Technical Univ., Russia			Online
18.00-18.30	Coffee break			Building 3, 2nd floor
18.15-20.30	JOINT POSTER/INTERNET SESSION Chairs: Ivan V. Fedosov, Daria K. Tuchina, Saratov State Univ., Russia Moderators: Ivan V. Fedosov, Michael M. Slepchenkov, Alexander I. Dubrovsky , Saratov State Univ., Russia			Building 3
September 25, Friday				
9.30-12.45	INVITED LECTURE/ ORAL SESSIONS BIOPHYSICS V Chairs: Elina Genina, Saratov State Univ., Russia			Building 10, Room 503
11.00-14.20	ON-LINE INVITED LECTURE/ORAL SESSION QUANTUM SCIENCE AND TECHNOLOGIES Chairs: Aleksey K. Fedorov, and Evgeniy O. Kiktenko, Russian Quantum Center, Russia; National University of Science and Technology “MISIS” (Russia)			Online
10.00-13.00	INVITED LECTURE/ORAL SESSIONS TERAHERTZ OPTICS & BIOPHOTONICS/ ADVANCED MATERIALS Chair: Kirill I. Zaytsev, Arsenii A. Gavdush, Nikita V. Chernomyrdin, Prokhorov General Physics Institute of RAS, Bauman Moscow State Technical Univ., Russia			Online
14.00-18.00	OUTDOOR ROUND-TABLE DISCUSSIONS AND THE CONCLUSION OF SFM-25			Open Air Meeting

PLENARY SESSIONS

Saratov time/Moscow time

September 22, Tuesday

PLENARY SESSION I



11.10-11.50/10:10-10:50

CELL STIMULATION AND DELIVERY VIA REMOTE CONTROLLED COLLOIDS

Gleb B. Sukhorukov, Skolkovo Institute of Science and Technology, Skoltech; Life Improvement by Future Technologies, LIFT Center, Moscow, Russia



11.50-12.30/10:50-11:30

MULTIMODAL NONLINEAR OPTICAL IMAGING: INTEGRATING FLIM, SUPER-RESOLUTION, AND LABEL-FREE CONTRAST FOR BIOMEDICAL APPLICATIONS

Junle Qu, Medical Photonics Innovation Institute, College of Physics and Optoelectronic Engineering, Shenzhen University, Shenzhen, China

PLENARY SESSION II



16.00-16.40/15.00-15.40

MULTIFUNCTIONAL IRON OXIDE NANOPARTICLES: MRI CONTRAST AND LIGHT INDUCED DISSOLUTION

Dmitry A. Gorin, Skolkovo Institute of Science and Technology, Skoltech, Moscow, Russia



16.40-17.20/ 15.40-16.20

THZ-IR SPECTROSCOPY OF ASTROPHYSICAL ICE ANALOGUES: FROM THE MOST COMMON MOLECULES TOWARD SEEDS OF LIFE IN SPACE

Kirill Zaytsev, Prokhorov General Physics Institute of RAS, Moscow, Russia



17.40-18.20/ 16.40-17.20

ENDOGENOUS FLUORESCENCE OF TISSUES: NEW MECHANISMS AND CLINICAL TRANSLATION

Evgeny Shirshin , Lomonosov Moscow State University, Moscow, Russia

**September 23, Wednesday
PLENARY SESSION III**



10.00-10.40/9.00-9.40

COMPUTING WITH QUANTUM FLUIDS OF LIGHT

Pavlos Lagoudakis, Skolkovo Institute of Science and Technology, Skoltech, Moscow, Russia



10.40-11.20/9.40-10.20

ADVANCES IN OPTICAL AND OPTOACOUSTIC IMAGING

Vasilis Ntziachristos, Technical University of Munich, Munich, Germany