

**MPThe 4-th International Conference
Terahertz and Microwave Radiation:
Generation, Detection, and Applications
("TERA 2020")**

Scientific program

Event format: On-line conference

Date: August 24, 2020

The Conference schedule is presented in Moscow time

VIRTUAL HALL 1

<i>Type of report (plenary, invited, oral, poster)</i>	<i>Speaker's full name</i>	<i>Authors and the report title</i>
9:00-9:30	Opening ceremony	
Plenary session		
9:30-10:15	Glyavin Michail	Glyavin M. (<i>Institute of Applied Physics RAS, Nizhny Novgorod, Russia</i>), Denisov G. (<i>Institute of Applied Physics RAS, Nizhny Novgorod, Russia</i>) Progress in high frequency, high power gyrotron development in Russia
10:15-11:00	Arzhannikov Andrei	Arzhannikov A.V., Ivanov I.A., Kasatov A.A., Kuznetsov S.A., Makarov M.A., Kuklin K.N., Popov S.S., Rovenskikh A.F., Samtsov D.A., Sandalov E.S., Sinitsky S.L., Stepanov V.D., Glinskiy V.V., Timofeev I.V. (<i>Institute of Nuclear Physics SB RAS, Novosibirsk, Russia; Novosibirsk State University, Novosibirsk, Russia</i>) Spatial and angular properties of Megawatt flux of THz radiation generated by GOL-PET facility
11:00-11:45	Shkurinov Alexander	Shkurinov A. (<i>Lomonosov Moscow State University, Moscow; Russia, Institute of laser and information technologies of the Russian Academy of Sciences, Moscow, Russia,)</i> Terahertz wave generation in cryogenic liquids
11:45-12:30	Khokhlov Dmitry	Khokhlov D. (<i>Lomonosov Moscow State University, Moscow, Russia</i>), Lebedev P.N. (<i>Physical Institute,</i>

		Moscow, Russia) Terahertz probing of topological surface electron states
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Lunch 12:30-13:30

VIRTUAL HALL 1

<i>Type of report (plenary, invited, oral, poster)</i>	<i>Speaker's full name</i>	<i>Report title</i>
Session "Electronics" Session topics: <ul style="list-style-type: none"> • Electronic devices • Nano and quantum devices • MMW components and systems • Laser-driven sources and detectors • Time-domain systems 		
<i>Invited 13:30-13:50</i>	Savilov Andrei	Bandurkin I.V., Kalynov Yu.K., Krygina D.D., Osharin I.V., Zavolslky N.A. (<i>Institute of Applied Physics RAS, Nizhny Novgorod, Russia</i>), Manuilov V.N., Savilov A.V. (<i>Institute of Applied Physics RAS, Nizhny Novgorod, Russia; Lobachevsky State University of Nizhny Novgorod, Nizhny Novgorod, Russia</i>) High-harmonic large-orbit gyrotrons for physical applications
<i>Invited 13:50-14:10</i>	Ryskin Nikita	Melnikova M.M. (<i>Institute of RadioEngineering and Electronics RAS, Moscow, Russia</i>), Grigorieva N.V. (<i>Institute of RadioEngineering and Electronics RAS, Moscow, Russia; Saratov State University, Saratov, Russia</i>), Ryskin N.M. (<i>Institute of RadioEngineering and Electronics RAS, Moscow, Russia; Saratov State University, Saratov, Russia</i>) Influence of reflected or external signal on gyrotron operation
<i>Invited 14:10-14:30</i>	Paulish Andrei	Paulish A.G (<i>Rzhanov Institute of Semiconductor Physics SB RAS, Novosibirsk, Russia; Novosibirsk State Technology University, Novosibirsk, Russia</i>), Gusachenko A.V., Morozov A.O., Churilov S.M. (<i>Rzhanov Institute of Semiconductor Physics SB RAS, Novosibirsk, Russia</i>), Dorozhkin K.V., Suslyayev V.I. (<i>National Research Tomsk State University, Tomsk, Russia</i>), Kostuchenko V.Ya. (<i>Rzhanov Institute of Semiconductor Physics SB RAS, Novosibirsk, Russia</i>), Pyrgaeva S.M. (<i>Altai State Technical University, Barnaul, Russia</i>)

		Tetraaminodiphenyl thin films optical and morphological characteristics investigations for high sensitive pyroelectric sensor with wide spectral range
<i>Oral</i> 14:30-14:45	Savilov Andrei	Savilov A.V. (<i>Institute of Applied Physics RAS, Nizhny Novgorod, Russia</i>) Regime of multi-stage trapping in super-radiant THz electron masers
<i>Oral</i> 14:45-15:00	Savilov Andrei	Oparina Yu.S., Peskov N.Yu., Shchegolkov D.Yu., Savilov A.V. (<i>Institute of Applied Physics RAS, Nizhny Novgorod, Russia</i>) Electron masers based on excitation of talbot-type supermodes
<i>Oral</i> 15:00-15:15	Oparina Yuliya	Bandurkin I.V., Bratman V.L., Oparina Yu.S., Savilov A.V. (<i>Institute of Applied Physics RAS, Nizhny Novgorod, Russia</i>), Lurie Yu (<i>Ariel University, Ariel, Israel</i>) Mechanisms of stabilization and terahertz radiation from short dense electron bunches
<i>Oral</i> 15:15-15:30	Tsvetkov Alexander	Glyavin M.Yu., Gitlin M.S., Bulanova S.A., Fokin A.P., Orlovskiy A.A., Tsvetkov A.I. (<i>Institute of Applied Physics RAS, Nizhny Novgorod, Russia</i>) Imaging of high-power microwave beam using a microwave gas breakdown Initiated by a surface of a metal-dielectric screen
<i>Oral</i> 15:30-15:45	Tsvetkov Alexander	Glyavin M.Yu., Tsvetkov A.I. (<i>Institute of Applied Physics RAS, Nizhny Novgorod, Russia</i>), Pagonakis I. (<i>Karlsruhe Institute of Technology, Karlsruhe, Germany</i>), Jelonnek J. (<i>Karlsruhe Institute of Technology, Karlsruhe, Germany</i>), Avramidis K. (<i>Karlsruhe Institute of Technology, Karlsruhe, Germany</i>), Mitsudo S. (<i>University of Fukui, Fukui, Japan</i>) The project of a 2nd harmonic 0.78 THz gyrotron with a coaxial cavity
<i>Oral</i> 15:45-16:00	Tsvetkov Alexander	Denisov G.G., Malygin V.I., Glyavin M.Yu., Belousov V.I., Tsvetkov A.I., Shmelev M.Yu., Ereemeev A.G., Chirkov A.V., Baber I.S., Karpov N.I., Leonov I.I., Kopelovich E.A., Troitsky M.M., Kuznetsov M.V., Varygin I.A., Zhurin K.A. (<i>Institute of Applied Physics RAS, Nizhny Novgorod, Russia</i>), Tai E.M., Soluyanov E.A., Bakulin M.I., Sokolov E.V. (<i>GYCOM Ltd., Nizhny Novgorod, Russia</i>), Roy I.N., Anashkin I.O., Khvostenko P.P., Kirneva N.A. (<i>National Research Center «Kurchatov Institute», Moscow, Russia</i>) Gyrotron setup for ECR-heating system of T-15MD TOKAMAK
<i>Oral</i> 16:00-16:15	Ryskin Nikita	Starodubov A.V. (<i>Saratov State University, Saratov, Russia</i>), Torgashov R.A., Rozhnev A.G. (<i>Institute of RadioEngineering and Electronics RAS, Moscow, Russia; Saratov State University, Saratov, Russia</i>), Pavlov A.M., Galushka V.V., Serdobintsev A.A., Kozhevnikov I.O. (<i>Saratov State University, Saratov, Russia</i>),

		Ulisse G. (<i>Goethe University Frankfurt, Frankfurt am Main, Germany</i>), Krozer V. (<i>Goethe University Frankfurt, Frankfurt am Main, Germany</i>) Development of a millimeter-band traveling-wave tube with a meander-line microstrip slow wave structure
<i>Oral</i> 16:15-16:30	Bakunin Vladimir	Bakunin V.L., Denisov G.G., Novozhilova Yu.V. (<i>Institute of Applied Physics RAS, Nizhny Novgorod, Russia</i>) Principal enhancement of THz-range gyrotron parameters via frequency locking

Coffee break 16:30-16:45

<i>Type of report (plenary, invited, oral, poster)</i>	<i>Speaker's full name</i>	<i>Report title</i>
Poster session "Electronics"		
16:45-17:30	Savilov Andrei	Bandurkin I.V., Kalynov Yu.K., Osharin I.V., Savilov A.V., Shegolkov D.Yu. (<i>Institute of Applied Physics RAS, Nizhny Novgorod, Russia</i>) Irregular and non-symmetrical cavities for high-harmonic THz gyrotrons
	Vodopyanov Alexander	Kalynov Yu.K., Razin S.V., Sidorov A.V., Vodopyanov A.V., Veselov A.P. (<i>Institute of Applied Physics RAS, Nizhny Novgorod, Russia</i>) On the prospects of the EUV source based on the plasma ignited by powerful pulsed terahertz gyrotron
	Vodopyanov Alexander	Mansfeld D., Sintsov S., Chekmarev N., Vodopyanov A. (<i>Institute of Applied Physics RAS, Nizhny Novgorod, Russia</i>) Carbon dioxide decomposition in atmospheric pressure plasma sustained by gyrotron radiation at a frequency of 24 GHz
	Lesnov Ilya	Lesnov I.V., Vdovin V.F. (<i>Institute of Applied Physics RAS, Nizhny Novgorod, Russia; Nizhny Novgorod State Technical University, Nizhny Novgorod, Russia</i>)

		BPSK for THz data channel (Phase-shift keying for THz data channel)
Vodopyanov Alexander	Tsvetkov A.I., Vodopyanov A.V., Mansfeld D.A., Orlovskiy A.A. (<i>Institute of Applied Physics RAS, Nizhny Novgorod, Russia</i>)	THz range gyrotron-based facility for material science and plasma physics research
Vodopyanov Alexander	Vodopyanov A.V., Mansfeld D.A., Viktorov M.E., Chekmarev N.V. (<i>Institute of Applied Physics RAS, Nizhny Novgorod, Russia</i>)	Interaction of plasma flow heated by gyrotron radiation with magnetic fields of an arched configuration
Parpulova Ksenia	Parpulova K.V., Melnik M.V., Medvedeva S.S., Gaidash A.A., Kozubov A.V., Tsyarkin A.N. (<i>ITMO University, St. Petersburg, Russia</i>)	Estimation of communication channel carrier capacity for terahertz pulse sequence information transmission
Pavelyev Vladimir	Pavelyev V.S., Degtyarev S.A., Khonina S.N., Tukmakov K.N., Reshetnikov A.S. (<i>Samara National Research University, Samara, Russia</i>), Knyazev B.A., Choporova Yu.Yu (<i>Institute of Nuclear Physics SB RAS, Novosibirsk, Russia; Novosibirsk State University, Novosibirsk, Russia; Samara National Research University, Samara, Russia</i>)	Elements of subwavelength terahertz photonics

VIRTUAL HALL 2

<i>Type of report (plenary, invited, oral, poster)</i>	<i>Speaker's full name</i>	<i>Authors and the report title</i>
Session "Large facilities and high power equipment" Session topics: <ul style="list-style-type: none"> • Tubes, gyrotrons, amplifiers • FEL and synchrotrons • Plasma diagnostics and filamentation 		
<i>Invited 13:30-13:50</i>	Tatematsu Yoshinori	Tatematsu Y. (<i>University of Fukui, Fukui, Japan</i>) Development of high frequency gyrotrons at FIR UF
<i>Invited 13:50-14:10</i>	Zotova Irina	Zotova I.V., Ginzburg N.S., Fedotov A.E., Rozentel R.M., Zaslavski V.Yu., Semenov E.S., Sergeev A.S. (<i>Institute of Applied Physics RAS, Nizhny Novgorod, Russia</i>) Periodical pulse generation under cyclotron resonance interaction with amplifying and absorbing electron beams
<i>Invited 14:10-14:30</i>	Nazarov Maxim	Nazarov M.M., Shcheglov P.A. (<i>National Research Center «Kurchatov Institute», Moscow, Russia</i>), Mitrofanov A.V. (<i>National Research Center «Kurchatov Institute», Moscow, Russia; Federal Research Centre "Crystallography and Photonics" RAS, Moscow, Russia</i>), Sidorov-Biryukov D.A., Garmatina A.A., Panchenko V.Ya (<i>National Research Center «Kurchatov Institute», Moscow, Russia; Physics Department, M.V. Lomonosov Moscow State University, Moscow, Russia</i>) Optimization of THz generation in terawatt laser filament at low pressure gas
<i>Invited 14:30-14:50</i>	Timofeev Igor	Timofeev I.V., Annenkov V.V. (<i>Institute of Nuclear Physics SB RAS, Novosibirsk, Russia</i>), Avtaeva S.V. (<i>Institute of Laser Physics SB RAS, Novosibirsk, Russia</i>), Berendeev E.A. (<i>Institute of Computational Mathematics and Mathematical Geophysics SB RAS, Novosibirsk, Russia</i>), Gubin K.V. (<i>Institute of Laser Physics SB RAS, Novosibirsk, Russia</i>), Trunov V.I. (<i>Institute of Laser Physics SB RAS, Novosibirsk, Russia</i>), Volchok E.P. (<i>Institute of Nuclear Physics SB RAS, Novosibirsk, Russia</i>) Generation of high-power THz radiation in plasma by colliding laser wakefields

Oral 14:50-15:05	Peskov Nikolai	Peskov N.Yu., Bandurkin I.V., Vikharev A.A., Kuzikov S.V., Savilov A.V. (<i>Institute of Applied Physics RAS, Nizhny Novgorod, Russia</i>) Novel schemes of trapping regime aimed on efficiency enhancement in Free-electron devices
Oral 15:05-15:20	Peskov Nikolai	Arzhannikov A.V., Sandalov E.S., Sinitsky S.L., Skovorodin D.I., Starostenko A.A. (<i>Institute of Nuclear Physics SB RAS, Novosibirsk, Russia</i>), Peskov N.Yu., Ginzburg N.S., Vikharev A.A. (<i>Institute of Applied Physics RAS, Nizhny Novgorod, Russia; Institute of Nuclear Physics SB RAS, Novosibirsk, Russia</i>), Zaslavsky V.Yu. (<i>Institute of Applied Physics RAS, Nizhny Novgorod, Russia</i>) Project of powerful long-pulse Bragg FEL of sub-THz to THz-band: design, simulations and components testing
Oral 15:20-15:35	Berendeev Evgeny	Timofeev I.V., Annenkov V.V. (<i>Institute of Nuclear Physics SB RAS, Novosibirsk, Russia</i>), Volchok E.P. (<i>Institute of Nuclear Physics SB RAS, Novosibirsk, Russia; Institute of computational mathematics and mathematical physics, Siberian branch of the Russian Academy of Sciences, Novosibirsk, Russia</i>), Berendeev E.A. (<i>Institute of computational mathematics and mathematical physics, Siberian branch of the Russian Academy of Sciences, Novosibirsk, Russia</i>) Simulation of terahertz waves generation due to the focusing of electron beams in a plasma
Oral 15:35-15:50	Sidorov Alexander	Sidorov A.V., Razin S.V., Veselov A.P., Vodopyanov A.V., Viktorov M.E., Barmashova T.V., Glyavin M.Yu., Luchinin A.G. (<i>Institute of Applied Physics RAS, Nizhny Novgorod, Russia</i>) Propagation of the discharge in noble gases sustained by powerful 0.67 THz gyrotron
Oral 15:50-16:05	Peskov Nikolai	Peskov N.Yu., Abubakirov E.B., Arzhannikov A.V., Denisenko A.N., Ginzburg N.S., Kalinin P.V., Sandalov E.S., Sinitsky S.L., Stepanov V.D., Vikharev A.A., Zaslavsky V.Yu. (<i>Institute of Applied Physics RAS, Nizhny Novgorod, Russia; Institute of Nuclear Physics SB RAS, Novosibirsk, Russia</i>) Powerful Cherenkov masers with 2D slow-wave structures intended for powering RF-undulators of Compton-type FELs
Oral 16:05-16:20	Vodopyanov Alexander	Vodopyanov A., Kubarev V., Sidorov A., Veselov A., Sintsov S., Viktorov M., Morozkin M., Glyavin M. (<i>Institute of Applied Physics RAS, Nizhny Novgorod, Russia</i>), Kubarev V., Shevchenko O., Gorbachev Y. (<i>Institute of Nuclear Physics SB RAS, Novosibirsk, Russia</i>)

		Continuous atmospheric pressure discharges in terahertz and sub-terahertz focused beams
<i>Oral</i> 16:20-16:35	Melnikova Maria	Melnikova M.M. (<i>Institute of RadioEngineering and Electronics RAS, Moscow, Russia</i>), Ryskin N.M. (<i>Institute of RadioEngineering and Electronics RAS, Moscow, Russia; Saratov State University, Saratov, Russia</i>) Using reflections for suppressing spurious modes in a multimode gyrotron
<i>Oral</i> 16:35-16:50	Prudkovskii Pavel	Dvernik L.S., Prudkovskii P.A. (<i>Physics Department, M.V. Lomonosov Moscow State University, Moscow, Russia</i>) Azimuthal Schmidt modes for strongly non-degenerate parametric down-conversion

Date: August 25, 2020

VIRTUAL HALL 1

<i>Type of report (plenary, invited, oral, poster)</i>	<i>Speaker's full name</i>	<i>Authors and the report title</i>
Session "Applications" Session topics: Biology and Medicine		
<i>Invited</i> 9:00-9:20	Cherkasova Olga	<p>Cherkasova O.P. (<i>Institute of Laser Physics SB RAS, Novosibirsk, Russia; Institute on Laser and Information Technologies of Russian Academy of Sciences - Branch of Federal Scientific Research Center "Crystallography and Photonics" of RAS, Shatura, Russia</i>), Konnikova M.R., Solyankin P.M., Sinko A.S. (<i>Institute on Laser and Information Technologies of Russian Academy of Sciences - Branch of Federal Scientific Research Center "Crystallography and Photonics" of RAS, Shatura, Russia</i>), Peng Y. (<i>University of Shanghai for Science and Technology, Shanghai, China</i>), Zavjalov E.L. (<i>Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia</i>), Shkurinov A.P. (<i>Physics Department, M.V. Lomonosov Moscow State University, Moscow, Russia</i>)</p> <p>The possibilities of THz pulse spectroscopy in diagnosis of glioma molecular markers</p>
<i>Invited</i> 9:20-9:40	Kistenev Yuri	<p>Kistenev Yu.V., Borisov A.V. (<i>Tomsk State University, Tomsk, Russia; Siberian State Medical University, Tomsk, Russia</i>), Knyazkova A.I., Vrazhnov D.A. (<i>Tomsk State University, Tomsk, Russia; Institute of Strength Physics and Materials Science SB RAS, Tomsk, Russia</i>), Skiba V.E., Prischepa V.V. (<i>Tomsk State University, Tomsk, Russia</i>), Cuisset A. (<i>Université du Littoral Côte d'Opale, Dunkerque, France</i>)</p> <p>Medical applications of IR and THz laser molecular imaging and machine learning</p>
<i>Invited</i> 9:40-10:00	Tuchin Valery	<p>Kistenev Yu.V. (<i>Siberian State Medical University, Tomsk, Russia; National Research Tomsk State University, Tomsk, Russia</i>), Tuchin V.V. (<i>Saratov State University, Saratov, Russia; ITMO University, St. Petersburg, Russia; National Research Tomsk State University, Tomsk, Russia</i>)</p> <p>Optical clearing and machine learning concepts for THz spectroscopy of tissues</p>
<i>Invited</i> 10:00-10:20	Smolyanskaya Olga	<p>Smolyanskaya O.A., Kulya M.S., Petrov N.V., Trukhin V.N., Kravtsenuyk O.V. (<i>ITMO University, St. Petersburg, Russia</i>), Mounaix P., Guillet J.-P. (<i>University of Bordeaux, Talence, France</i>)</p> <p>Modelling of biological tissue interaction with EM wave in THz spectral ranges: real objects and phantom</p>

		experiments
<i>Invited</i> 10:20-10:40	Konnikova Maria	Konnikova M.R. (<i>Institute on Laser and Information Technologies of Russian Academy of Sciences - Branch of Federal Scientific Research Center "Crystallography and Photonics" of RAS, Shatura, Russia</i>), Cherkasova O.P. (<i>Institute of Laser Physics SB RAS, Novosibirsk, Russia</i> ; <i>Institute on Laser and Information Technologies of Russian Academy of Sciences - Branch of Federal Scientific Research Center "Crystallography and Photonics" of RAS, Shatura, Russia</i>), Nazarov M.M. (<i>National Research Center «Kurchatov Institute», Moscow, Russia</i>), Shkurinov A.P. (<i>Lomonosov Moscow State University, Moscow, Russia</i> ; <i>Institute on Laser and Information Technologies of Russian Academy of Sciences - Branch of Federal Scientific Research Center "Crystallography and Photonics" of RAS, Shatura, Russia</i>) THz spectroscopy as a method for detecting thyroid diseases
<i>Invited</i> 10:40-11:00	Zaytsev Kirill	Chernomyrdin N.V. (<i>Prokhorov General Physics Institute of RAS, Russia</i> ; <i>Bauman Moscow State Technical University, Russia</i>), Katyba G.M. (<i>Bauman Moscow State Technical University, Russia</i> ; <i>Institute of Solid State Physics of RAS, Russia</i>), Kucheryavenko A.S. (<i>Prokhorov General Physics Institute of RAS, Russia</i>), Dolganova I.N. (<i>Bauman Moscow State Technical University, Russia</i> ; <i>Institute of Solid State Physics of RAS, Russia</i>), Kurlov V.N. (<i>Institute of Solid State Physics of RAS, Russia</i>), Ponomarev D.S. (<i>Prokhorov General Physics Institute of RAS, Russia</i> ; <i>Institute of Ultra High Frequency Semiconductor Electronics of RAS, Russia</i>), Reshetov I.V. (<i>Sechenov University, Russia</i>), Tuchin V.V. (<i>Saratov State University, Russia</i>), Zaytsev K.I. (<i>Prokhorov General Physics Institute of RAS, Russia</i> ; <i>Bauman Moscow State Technical University, Russia</i>) Overcoming the Abbe diffraction limit in terahertz microscopy of soft biological objects

Coffee break 11:00-11:15

<i>Oral</i> 11:15-11:30	Knyazkova Anastasia	Knyazkova A.I. (<i>Tomsk State University, Tomsk, Russia</i> ; <i>Institute of Strength Physics and Materials Science SB RAS, Tomsk, Russia</i>), Samarinova A.A. (<i>Tomsk State University, Tomsk, Russia</i>), Borisov A.V. (<i>Tomsk State University, Tomsk, Russia</i> ; <i>Siberian State Medical University, Tomsk, Russia</i>), Skiba V.E. (<i>Tomsk State University, Tomsk, Russia</i>), Kistenev Yu.V. (<i>Tomsk State University, Tomsk, Russia</i> ; <i>Siberian State Medical University, Tomsk, Russia</i>) THz and IR molecular imaging of cancerous tissues
<i>Oral</i> 11:30-11:45	Dunaevskiy Grigory	Dunaevsky G.E., Nechaev A.N., Perveev I.A., Smygalina P.P. (<i>National Research Tomsk State University, Tomsk, Russia</i>) Non-contact IR control of the process of microwave heating of deep frostbite

<p><i>Oral</i> 11:45-12:00</p>	<p>Yanina Irina</p>	<p>Yanina I.Yu. (<i>Saratov State University, Saratov, Russia; National Research Tomsk State University, Tomsk, Russia</i>), Nikolaev V.V. (<i>National Research Tomsk State University, Tomsk, Russia</i>), Borisov A.V. (<i>Siberian State Medical University, Tomsk, Russia; National Research Tomsk State University, Tomsk, Russia</i>), Knyazkova A.I. (<i>Siberian State Medical University, Tomsk, Russia; National Research Tomsk State University, Tomsk, Russia</i>), Buyko E.E. (<i>National Research Tomsk State University, Tomsk, Russia</i>), Kochubey V.I. (<i>Saratov State University, Saratov, Russia; National Research Tomsk State University, Tomsk, Russia</i>), Ivanov V.V. (<i>Siberian State Medical University, Tomsk, Russia</i>), Kistenev Yu.V. (<i>Siberian State Medical University, Tomsk, Russia; National Research Tomsk State University, Tomsk, Russia</i>), Tuchin V.V. (<i>Saratov State University, Saratov, Russia; National Research Tomsk State University, Tomsk, Russia</i>)</p> <p>THz spectroscopy of skin pathologies associated with water migration and content</p>
<p><i>Oral</i> 12:00-12:15</p>	<p>Vrazhnov Denis</p>	<p>Vrazhnov D.A. (<i>Institute of Strength Physics and Materials Science SB RAS, Tomsk, Russia; National Research Tomsk State University, Tomsk, Russia</i>), Kistenev Y.V. (<i>National Research Tomsk State University, Tomsk, Russia; Siberian State Medical University, Tomsk, Russia</i>), Krivokharchenko A.S. (<i>N.N. Semenov Institute of Chemical Physics, RAS, Moscow, Russia</i>), Karmenyan A.V., Perevedentseva E.V., Sarmiento M.N., Barus E.L., Cheng C.-L. (<i>National Dong Hwa University, Hualien, Taiwan</i>)</p> <p>Machine learning methods for the in-vitro analysis of preimplantation embryo Raman micro-spectroscopy</p>
<p><i>Oral</i> 12:15-12:30</p>	<p>Khristoforova Yulia</p>	<p>Khristoforova Y.A., Bratchenko I.A., Bratchenko L.A., Myakinin O.O., Artemyev D.N., Zakharov V.P. (<i>Samara National Research University, Samara, Russia</i>), Moryatov A.A., Kozlov S.V. (<i>Samara State Medical University, Samara, Russia</i>), Borisova E.G., Genova T.I. (<i>Institute of Electronics BAS, Sofia, Bulgaria</i>), Troyanova P.P. (<i>Sofia University, Sofia, Bulgaria</i>)</p> <p>Optical biopsy of skin cancer based on Raman and fluorescence spectroscopy</p>

Lunch 12:30-13:25

<p><i>Invited</i> 13:25-13:45</p>	<p>Ozheredov Ilya</p>	<p>Berlovskaya E., Makurenkov A., (Faculty of Physics and International Laser Center, Lomonosov Moscow State University, Moscow, 119991, Russia), Cherkasova O. (Institute of Laser Physics, Siberian Branch of the RAS, Novosibirsk, 630090, Russia, Institute on Laser and Information Technologies - Branch of the Federal Scientific Research), Ozheredov I. (Faculty of Physics and International Laser Center, Lomonosov Moscow State University, Moscow, 119991, Russia, ³Institute on Laser and Information Technologies - Branch of the Federal Scientific Research Centre "Crystallography and Photonics" of RAS, Shatura, Moscow Region 140700, Russia), Nikolaev D. (Institute for Information Transmission Problems of the RAS (Kharkevich Institute), Moscow, 127051, Russia), Adamovich T., Isaychev E., Isaychev S., Chernorizov A. (Faculty of Psychology, Lomonosov Moscow State</p>
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		<p>University, Moscow, 119991, Russia), Varaksin A., Gatilov S., Kurenkov N. (CJSC Pattern Recognition Research Company, Moscow 117485 Russia), Shkurinov A. (Faculty of Physics and International Laser Center, Lomonosov Moscow State University, Moscow, 119991, Russia, Institute on Laser and Information Technologies - Branch of the Federal Scientific Research Centre "Crystallography and Photonics" of RAS, Shatura, Moscow Region 140700, Russia)</p> <p style="text-align: center;">Remote diagnostics of human psychoemotional states by the infrared –terahertz image</p>
<p><i>Oral</i> 13:45-14:00</p>	<p>Matveeva Irina</p>	<p>Matveeva I.A., Myakinin O.O., Khristoforova Y.A., Bratchenko I.A., Tupikova E.N., Zakharov V.P. (<i>Samara National Research University, Samara, Russia</i>)</p> <p>Possibilities for decomposing Raman spectra of amino acids mixture by multivariate curve resolution (MCR) analysis</p>
<p><i>Oral</i> 14:00-14:15</p>	<p>Lykina Anastasiya</p>	<p>Konnikova M.R. (<i>Federal Research Centre "Crystallography and Photonics" RAS, Moscow, Russia</i>), Trukhin V.N., Gavrilova P.G. (<i>A.F. Ioffe Physical Technical Institute RAS, St. Petersburg, Russia; ITMO University, St. Petersburg, Russia</i>), Vaks V.L., Anfertyev V.A., Domracheva E.G., Chernyaeva M.B. (<i>Institute for Physics of Microstructures RAS, Nizhny Novgorod, Russia</i>), Kistenev Yu.V., Prischepa V.V. (<i>Tomsk State University, Tomsk, Russia</i>), Vrazhnov D.A. (<i>Institute of Strength Physics and Materials Science SB RAS, Tomsk, Russia</i>), Cherkasova O.P. (<i>Tomsk State University, Tomsk, Russia; Institute of Laser Physics SB RAS, Novosibirsk, Russia</i>), Shkurinov A.P. (<i>M.V. Lomonosov Moscow State University, Moscow, Russia; Federal Research Centre "Crystallography and Photonics" RAS, Moscow, Russia</i>), Nazarov M.M. (<i>National Research Center «Kurchatov Institute», Moscow, Russia</i>), Lykina A.A., Smolyanskaya O.A. (<i>ITMO University, St. Petersburg, Russia</i>), Kononova Yu.A., Korolev D.V., Toropova Ya.G. (<i>Almazov National Medical Research Centre, Saint-Petersburg, Russia</i>)</p> <p>Applications of THz spectroscopy in study of the dry pellet of blood plasma</p>
<p><i>Oral</i> 14:15-14:30</p>	<p>Odlyanitskiy Evgeniy</p>	<p>Odlyanitskiy E.L., Kulya M.S., Petrov N.V., Smolyanskaya O.A. (<i>ITMO University, St. Petersburg, Russia</i>), Cassar Q., Mounaix P., Guillet J.P. (<i>University of Bordeaux, Talence, France</i>), Mustafin I.A., Trukhin V.N. (<i>A.F. Ioffe Physical Technical Institute RAS, St. Petersburg, Russia</i>), Korolev D.V., Kononova Y.V. (<i>Almazov National Medical Research Centre, Saint-Petersburg, Russia</i>)</p> <p>Pulse terahertz holographic reconstruction of optical parameters for blood plasma pellets</p>
<p><i>Oral</i> 14:30-14:45</p>	<p>Nemova Eugenia</p>	<p>Nemova E.F. (<i>Voievodsky Institute of Chemical Kinetics and Combustion of SB RAS, Novosibirsk, Russia; Institute of Laser Physics SB RAS, Novosibirsk, Russia</i>), Cherkasova O.P. (<i>Institute of Laser Physics SB RAS, Novosibirsk, Russia</i>), Dultseva G.G. (<i>Voievodsky Institute of Chemical Kinetics and Combustion of SB RAS, Novosibirsk, Russia</i>)</p> <p>Effect of terahertz radiation on albumin response to oxidative stress</p>

Oral 14:45-15:00	Nikolaev Viktor	Nikolaev V.V., Zakharova O.A. (<i>Institute of Strength Physics and Materials Science SB RAS, Tomsk, Russia; National Research Tomsk State University, Tomsk, Russia</i>), Kurochkina O.S. (<i>Institute of microsurgery, Tomsk, Russia</i>), Krivova N.A. (<i>National Research Tomsk State University, Tomsk, Russia</i>), Sandykova E.A. (<i>Siberian State Medical University, Tomsk, Russia; National Research Tomsk State University, Tomsk, Russia</i>), Taletskiy A.V. (<i>State Regional Autonomous Budget Health Care Institution "Tomsk Regional Oncology Center", Tomsk, Russia</i>), Kistenev Yu.V. (<i>Siberian State Medical University, Tomsk, Russia; National Research Tomsk State University, Tomsk, Russia</i>) Measurement and estimation of the structure of lymphedematous tissue on animals model
Oral 15:00-15:15	Grigorev Roman	Grigorev R.O., Kuzikova A.V., Demchenko P.S., Nosenko T.N., Sitnikova V.E., Khodzitskiy M.K. (<i>ITMO University, St. Petersburg, Russia</i>), TYDEX, LLC, St. Petersburg, Russia), Senyuk A.V., Khamid A.K., Zakharenko A.A. (<i>Pavlov First Saint Petersburg State Medical University, St. Petersburg, Russia</i>) Investigation of normal and cancer gastric tissues by terahertz and infrared spectroscopic methods
Oral 15:15-15:30	Gavdush Arseny	Gavdush A.A. (<i>Prokhorov General Physics Institute of RAS, Russia; Bauman Moscow State Technical University, Russia</i>), Giuliano B.M., Müller B. (<i>Max-Planck-Institut für extraterrestrische Physik, Garching bei München, Germany</i>), Komandin G.A. (<i>Prokhorov General Physics Institute of RAS, Russia</i>), Zaytsev K.I. (<i>Prokhorov General Physics Institute of RAS, Russia; Bauman Moscow State Technical University, Russia</i>), Ivlev A.V., Caselli P. (<i>Max-Planck-Institut für extraterrestrische Physik, Garching bei München, Germany</i>) Terahertz dielectric spectroscopy of interstellar and circumstellar ice analogs

Coffee break 15:30-15:45

<i>Type of report (plenary, invited, oral, poster)</i>	<i>Speaker's full name</i>	<i>Authors and the report title</i>
Poster session "Applications"		
15:45-17:00	Chefonov Oleg	Sitnikov D.S., Ilina I.V., Chefonov O.V., Ovchinnikov A.V. (<i>Joint High Temperature Institute RAS, Moscow, Russia</i>), Revkova V.A., Konoplyannikov M.A., Kalsin V.A., Baklaushev V.P. (<i>Federal Research and Clinical Center of Specialized Medical Care and Medical Technologies FMBA of Russia, Moscow, Russia</i>) Double-stand DNA foci formation in human skin fibroblasts after high-power THz pulses exposure

Galka Alexander	Galka A.G. (<i>Institute of Applied Physics RAS, Nizhny Novgorod, Russia</i>), Martucevich A.K. (<i>Privolzhsky Research Medical University, Nizhny Novgorod, Russia</i>) Study of dielectric properties of biological samples under its modification with reactive oxigen species
Galka Alexander	Galka A.G. (<i>Institute of Applied Physics RAS, Nizhny Novgorod, Russia</i>), Martusevich A.K. (<i>Privolzhsky Research Medical University, Nizhny Novgorod, Russia</i>), Yanin D.V. (<i>Institute of Applied Physics RAS, Nizhny Novgorod, Russia</i>), Kostrov A.V. (<i>Institute of Applied Physics RAS, Nizhny Novgorod, Russia</i>), Epishkina A.A. (<i>Privolzhsky Research Medical University, Nizhny Novgorod, Russia</i>) Near-field microwave diagnostics of the burn wounds
Nikolaev Viktor	Nikolaev V.V., Kuzmin D.A., Borisov A.V., Zasedatel V.S., Kistenev Yu.V. (<i>Siberian State Medical University, Tomsk, Russia; Institute of Strength Physics and Materials Science SB RAS, Tomsk, Russia; National Research Tomsk State University, Tomsk, Russia</i>) Classification of the IR spectra of exhaled air using the voting method
Bulygin Andrew	Bulygin A.D. (<i>Siberian State Medical University, Tomsk, Russia; V.E. Zuev Institute of Atmospheric Optics SB RAS, Tomsk, Russia; National Research Tomsk State University, Tomsk, Russia</i>), Borisov A.V. (<i>Siberian State Medical University, Tomsk, Russia; National Research Tomsk State University, Tomsk, Russia</i>), Danilkin E.A. (<i>V.E. Zuev Institute of Atmospheric Optics SB RAS, Tomsk, Russia; National Research Tomsk State University, Tomsk, Russia</i>), Kistenev Yu.V. (<i>Siberian State Medical University, Tomsk, Russia; National Research Tomsk State University, Tomsk, Russia</i>) Modeling of optical coherent tomography in the THz range for inhomogeneous media with sharp borders of complex form on an example of a tooth model
Lokhin Alexei	Lokhin A.A. (<i>Tomsk State University, Tomsk, Russia</i>), Kistenev Yu.V. (<i>Tomsk State University, Tomsk, Russia; Siberian State Medical University, Tomsk, Russia</i>), Borisov A.V. (<i>Tomsk State University, Tomsk, Russia; Siberian State Medical University, Tomsk, Russia</i>), Sandykova E.A. (<i>Siberian State Medical University, Tomsk, Russia</i>), Taletskiy A.V. (<i>State Regional Autonomous Budget Health Care Institution "Tomsk Regional Oncology Center", Tomsk, Russia</i>) Research of a lymphedematous tissue model by optical coherent elastography
Cherkasova Olga	N. Nikolaev (<i>Institute of Laser Physics SB RAS, Novosibirsk, Russia; Institute of Automation and Electrometry SB RAS, Novosibirsk, Russia</i>), A. Mamrashev (<i>Institute of Automation and Electrometry SB</i>

		<p>RAS, Novosibirsk, Russia), O. Cherkasova ((Institute of Laser Physics SB RAS, Novosibirsk; Tomsk State University, Tomsk, Russia)</p> <p>The difference in terahertz dielectric properties of DNA solutions in water and ethanol</p>
	Baranov Pavel	<p>Baranov P., Zatonov I. (Tomsk Polytechnic University, Russia)</p> <p>Brief history of terahertz photonics and plasmonics at Tomsk Polytechnic University</p>
	Vrazhnov Denis	<p>Bulygin A.D. (<i>National Research Tomsk State University, Tomsk, Russia; V.E. Zuev Institute of Atmospheric Optics SB RAS, Tomsk, Russia; Siberian State Medical University, Tomsk, Russia</i>), Vrazhnov D.A. (<i>National Research Tomsk State University, Tomsk, Russia; Institute of Strength Physics and Materials Science SB RAS, Tomsk, Russia</i>), Danilkin E.A. (<i>V.E. Zuev Institute of Atmospheric Optics SB RAS, Tomsk, Russia</i>), Sim E.S. (<i>National Research Tomsk State University, Tomsk, Russia</i>), Meglinski I. (<i>National Research Tomsk State University, Tomsk, Russia; University of Oulu, Oulu, Finland; Aston University, Birmingham, United Kingdom</i>), Kistenev Yu.V. (<i>National Research Tomsk State University, Tomsk, Russia; Siberian State Medical University, Tomsk, Russia</i>)</p> <p>Modeling of ultra-sharp light focusing through tissue-like scattering medium utilizing scalar and Vector Monte Carlo methods</p>
	Nemova Eugenia	<p>Nemova E.F. (<i>Voevodsky Institute of Chemical Kinetics and Combustion of SB RAS, Novosibirsk, Russia; Institute of Laser Physics SB RAS, Novosibirsk, Russia</i>), Cherkasova O.P. (<i>Institute of Laser Physics SB RAS, Novosibirsk, Russia</i>), Dultseva G.G. (<i>Voevodsky Institute of Chemical Kinetics and Combustion of SB RAS, Novosibirsk, Russia</i>)</p> <p>Alteration of transport functions of albumin under terahertz radiation: a modeling study of the interaction with nitrogen oxide</p>
	Knyazkova Anastasia	<p>Zuhayri H. (<i>Tomsk State University, Tomsk, Russia</i>), Knyazkova A.I. (<i>Tomsk State University, Tomsk, Russia; Institute of Strength Physics and Materials Science SB RAS, Tomsk, Russia</i>), Nikolaev V.V. (<i>Tomsk State University, Tomsk, Russia; Institute of Strength Physics and Materials Science SB RAS, Tomsk, Russia</i>), Borisov A.V., Kistenev Yu.V. (<i>Tomsk State University, Tomsk, Russia; Siberian State Medical University, Tomsk, Russia</i>), Zakharova O.A. (<i>Tomsk State University, Tomsk, Russia; Institute of Strength Physics and Materials Science SB RAS, Tomsk, Russia</i>), Dyachenko P.A., Tuchin V.V. (<i>Tomsk State University, Tomsk, Russia; Saratov State University, Saratov, Russia</i>)</p> <p>Study of wound healing by terahertz spectroscopy</p>

VIRTUAL HALL 2

<i>Type of report (plenary, invited, oral, poster)</i>	<i>Speaker's full name</i>	<i>Authors and the report title</i>
Session "Basic physics" Session topics: <ul style="list-style-type: none"> • THz Spectroscopy of the solid-state • Ultrafast phenomena • High field THz generation and nonlinear physics • 2D materials 		
<i>Invited 9:00-9:20</i>	Popov Alexander	Bogatskaya A.V. (<i>Physics Department, M.V. Lomonosov Moscow State University, Moscow, Russia; Skobeltsyn Institute of Nuclear Physics, Moscow State University, Moscow, Russia</i>), Volkova E.A. (<i>P.N.Lebedev Physical Institute RAS, Moscow, Russia</i>), Popov A.M. (<i>P.N.Lebedev Physical Institute RAS, Moscow, Russia; Physics Department, M.V. Lomonosov Moscow State University, Moscow, Russia</i>) Modeling of ultrashort terahertz pulses Propagation and amplification in nonequilibrium plasma channels formed in Gases by femtosecond UV laser radiation
<i>Invited 9:20-9:40</i>	Kitaeva Galiya	Kitaeva G.Kh., Kuznetsov K.A., Leontyev A.A., Prudkovskii P. A. (<i>Lomonosov Moscow State University, Moscow, Russia</i>) Generation of quantum correlated pairs of optical and terahertz photons
<i>Invited 9:40-10:00</i>	Vozianova Anna	Masyukov M.S., Vozianova A.V., Grebenchukov A.N., Gubaidullina K.V., Zaitsev A.D., Khodzitsky M.K. (<i>ITMO University, St. Petersburg, Russia</i>) Optically tunable terahertz chiral metasurface based on multi-layered graphene
<i>Invited 10:00-10:20</i>	Minin Igor	Liyang Yue, Zengbo Wang, Bing Yan (<i>Bangor University, Bangor, United Kingdom</i>), Minin O.V., Minin I.V. (<i>National Research Tomsk State University, Tomsk, Russia; Siberian state university of geosystems and technologies, Novosibirsk, Russia</i>) Super-enhancement focusing of Teflon sphere in terahertz band

<i>Oral</i> 10:20- 10:35	Ponomareva Evgeniya	Ponomareva E.A., Ismagilov A.O., Putilin S.E., Tsyarkin A.N., Kozlov S.A. (<i>ITMO University, St. Petersburg, Russia</i>) Laser and matter properties effect on the enhancement of terahertz waves energy during liquid jets double pulse excitation
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Coffee break 10:35-11:00

<i>Oral</i> 11:00- 11:15	Sidorov Alexander	Sidorov A.V., Razin S.V., Veselov A.P., Vodopyanov A.V., Orlovskiy A.A., Glyavin M.Yu. (<i>Institute of Applied Physics RAS, Nizhny Novgorod, Russia</i>) Gas discharge sustained by the powerful radiation of 0.26 THz CW gyrotron
<i>Oral</i> 11:15- 11:30	Nikolaev Nazar	Nikolaev N.A, Mamrashev A.A. (<i>Institute of Automation and Electrometry SB RAS, Novosibirsk, Russia</i>), Lanski G.V., Andreev Yu.M. (<i>Institute of Monitoring of Climatic and Ecological System SB RAS, Tomsk, Russia</i>) Optical properties and potential of KTA crystal for THz wave generation
<i>Oral</i> 11:30- 11:45	Annenkov Vladimir	Annenkov V.V. (<i>Institute of Nuclear Physics SB RAS, Novosibirsk, Russia; Novosibirsk State University, Novosibirsk, Russia</i>), Timofeev I.V. (<i>Institute of Nuclear Physics SB RAS, Novosibirsk, Russia</i>), Volchok E.P. (<i>Institute of Nuclear Physics SB RAS, Novosibirsk, Russia</i>) Highly efficient electromagnetic emission during relaxation of a thin sub-relativistic electron beam in magnetized plasma
<i>Oral</i> 11:45- 12:00	Kvitsinskiy Anatoly	Kvitsinskiy A., Demchenko P., Novoselov M., Anoshkin I., Bogdanov K., Baranov A., Voizanova A.V., Khodzitsky M. (<i>ITMO University, St. Petersburg, Russia</i>) Terahertz time-domain spectroscopic polarimetry of carbon nanomaterials-based structures
<i>Oral</i> 12:00- 12:15	Kuznetsov Kirill	Kuznetsov K.A. (<i>Lomonosov Moscow State University, Moscow, Russia</i>), Safronenkov D.A. (<i>Lomonosov Moscow State University, Moscow, Russia</i>), Kuznetsov P.I. (<i>Kotelnikov institute of radio engineering and Electronics RAS. Fryazino branch, Fryazino, Russia</i>), Kitaeva G.Kh. (<i>Lomonosov Moscow State University, Moscow, Russia</i>) Photoconductive antennas based on topological insulators
<i>Oral</i> 12:15-	Oladyshkin Ivan	Oladyshkin I.V., Fadeev D.A., Shishkin B.V., Mironov V.A. (<i>Institute of Applied Physics RAS, Nizhny Novgorod, Russia</i>), Yunin P.A. (<i>Institute for Physics of Microstructures RAS, Nizhny Novgorod, Russia</i>)

12:30		Nonlinear heating of metals and terahertz generation in damaging regimes
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Lunch 12:30-13:30

Oral 13:30- 13:45	Silaev Alexander	Silaev A.A., Romanov A.A., Vvedenskii N.V. (<i>Institute of Applied Physics RAS, Nizhny Novgorod, Russia; Lobachevsky State University of Nizhny Novgorod, Nizhny Novgorod, Russia</i>) Tunable mid- and far-infrared pulses generation due to gas irradiated by a chirped two-color laser field
Oral 13:45- 14:00	Silaev Alexander	Silaev A.A., Romanov A.A., Vvedenskii N.V. (<i>Institute of Applied Physics RAS, Nizhny Novgorod, Russia; Lobachevsky State University of Nizhny Novgorod, Nizhny Novgorod, Russia</i>) Visualization of terahertz and Mid-IR pulses during gas ionization by intense femtosecond laser field
Oral 14:00- 14:15	Vorontsova Irina	Vorontsova I.O., Parpulova K.V., Melnik M.V., Tcypkin A.N., Kozlov S.A. (<i>ITMO University, St. Petersburg, Russia</i>) Numerical simulation of the Z-scan technique in the terahertz spectral range using the approximate solution of the modified field dynamics equations
Oral 14:15- 14:30	Glinsky Vladimir	Glinskiy V.V. (<i>Institute of Nuclear Physics SB RAS, Novosibirsk, Russia; Novosibirsk State University, Novosibirsk, Russia</i>), Timofeev I.V. (<i>Institute of Nuclear Physics SB RAS, Novosibirsk, Russia</i>), Annenkov V.V. (<i>Institute of Nuclear Physics SB RAS, Novosibirsk, Russia; Novosibirsk State University, Novosibirsk, Russia</i>), Arzhannikov A.V. (<i>Institute of Nuclear Physics SB RAS, Novosibirsk, Russia; Novosibirsk State University, Novosibirsk, Russia</i>) Electromagnetic sub-THz Emission from beam-plasma system with strong density inhomogeneities
Oral 14:30- 14:45	Safronenkov Daniil	Kovalev S.P., Ilyakov I.E. (<i>Helmholtz Zentrum Munchen, Munchen, Germany</i>), Safronenkov D.A., Kuznetsov K.A. (<i>Lomonosov Moscow State University, Moscow, Russia</i>), Kuznetsov P.I. (<i>Kotelnikov institute of radio engineering and Electronics RAS. Fryazino branch, Fryazino, Russia</i>), Gensch M. (<i>Institute of Optical Sensor Systems, German Aerospace Center (DLR), Berlin, Germany</i>), Kitaeva G.Kh (<i>Lomonosov Moscow State University, Moscow, Russia</i>) Pump-probe study of topological insulators Bi₂-xSbxTe₃-ySey
Oral 14:45- 15:00	Yudin Nikolay	Yudin N.N., Gribenyukov A.I., Podsyvalov S.N., Zinoviev M.M., Olshukov A.S. (<i>V.E. Zuev Institute of Atmospheric Optics SB RAS, Tomsk, Russia; National Research Tomsk State University, Tomsk, Russia</i>), Romanovsky O.A. (<i>V.E. Zuev Institute of Atmospheric Optics SB RAS, Tomsk, Russia</i>), Sirotkin A.A. (<i>Prokhorov</i>

		<i>General Physics Institute RAS, Moscow, Russia)</i> THz-radiation in A ZGP2 single crystal pumped by dual-wavelength optical parametric oscillator based on the ktp single crystal
<i>Oral 15:00- 15:15</i>	Zinovev Michael	Zinovev M.M., Yudin N.N., Podzyvalov S.N., Romanovskii O.A., Olshukov A.S. (<i>V.E. Zuev Institute of Atmospheric Optics SB RAS, Tomsk, Russia; National Research Tomsk State University, Tomsk, Russia</i>) The ZnGeP₂ single crystals research of defects by a terahertz spectroscopy

Coffee break 15:15-15:30

<i>Type of report (plenary, invited, oral, poster)</i>	<i>Speaker's full name</i>	<i>Authors and the report title</i>
Poster session "Basic physics"		
<i>15:30- 16:30</i>	Chefonov Oleg	Chefonov O.V., Ovchinnikov A.V., Agranat M.B. (<i>Joint High Temperature Institute RAS, Moscow, Russia</i>) Free-carrier dynamics in p-doped silicon induced by an intense terahertz field
	Chefonov Oleg	Chefonov O.V., Ovchinnikov A.V. (<i>Joint High Temperature Institute RAS, Moscow, Russia</i>) Terahertz induced optical Second Harmonic Generation in the Centrosymmetric Antiferromagnetic NiO
	Barmashova Tatyana	Barmashova T., Luchinin A., Murzanev A., Sidorov A., Stepanov A., Veselov A., Vodopyanov A. (<i>Institute of Applied Physics RAS, Nizhny Novgorod, Russia</i>) Laser interferometry of terahertz discharge in N₂
	Zhukova Maria	Zhukova M.O., Ismagilov A.O., Tcypkin A.N., Arkhipov R.M. (<i>ITMO University, St. Petersburg, Russia</i>) Terahertz pulse shaping via spiral phase plate in the time-domain spectroscopy scheme
	Rybak Alina	Rybak A.A., Antsygin V.D., Nikolaev N.A. (<i>Institute of Automation and Electrometry SB RAS, Novosibirsk,</i>

	<p><i>Russia; Novosibirsk State University, Novosibirsk, Russia)</i></p> <p>Terahertz properties of potassium titanyl phosphate in a wide temperature range</p>
Novikova Tatiana	<p>Novikova T.I., Kuznetsov K.A., Leontyev A.A., Kitaeva G.Kh. (<i>Lomonosov Moscow State University, Moscow, Russia)</i></p> <p>Study of terahertz properties of lithium niobate at cryogenic temperatures by SPDC-spectroscopy</p>
Kubarev Vitaly	<p>Kubarev V.V., Chesnokov E.N. (<i>Institute of Nuclear Physics SB RAS, Novosibirsk, Russia; Novosibirsk State University, Novosibirsk, Russia</i>), Koshlyakov P.V. (<i>Voevodsky Institute of Chemical Kinetics and Combustion of SB RAS, Novosibirsk, Russia</i>), Krasnoperov L.N. (<i>New Jersey Institute of Technology, Newark, USA</i>)</p> <p>Study of oh-radical dynamics by ultrafast terahertz time-domain magnetic spectroscopy at the Novofel</p>
Leontyev Andrey	<p>Leontyev A.A., Kuznetsov K.A., Prudkovskii P. A., Rudyak A.M., Kitaeva G.Kh. (<i>Lomonosov Moscow State University, Moscow, Russia</i>)</p> <p>Investigation of quantum-correlated optical-terahertz biphotons</p>

Date: August 26 2020

VIRTUAL HALL 1

<i>Type of report (plenary, invited, oral, poster)</i>	<i>Speaker's full name</i>	<i>Authors and the report title</i>
Session "Materials" Session topics: <ul style="list-style-type: none"> • Materials properties • Metamaterials, plasmonics, and artificial materials 		
<i>Invited 9:00-9:20</i>	Nikolaev Nazar	Nikolaev N.A. (<i>Institute of Automation and Electrometry SB RAS, Novosibirsk, Russia</i>), Kuznetsov S.A. (<i>Novosibirsk State University, Novosibirsk, Russia; Rzhanov Institute of Semiconductor Physics SB RAS, Novosibirsk, Russia</i>), Beruete M. (<i>Public University of Navarra, Pamplona, Spain</i>) High-performance thin-film sensors based on terahertz metasurface
<i>Invited 9:20-9:40</i>	Grebenchukov Alexander	Masyukov M.S., Zaitsev A.D., Vozianova A.V., Khodzitsky M.K. (<i>ITMO University, St. Petersburg, Russia, TYDEX, LLC, St. Petersburg, Russia</i>) Asymmetric graphene metamaterial for narrowband terahertz modulation
<i>Invited 9:40-10:00</i>	Khodzitsky Mikhail	Zykov D.V. (<i>ITMO University, St. Petersburg, Russia</i>), Demchenko P.S., Makarova E.S., Kablukova N.S. (<i>ITMO University, St. Petersburg, Russia</i>), Asach A.V. (<i>ITMO University, St. Petersburg, Russia</i>), Novotelnova A.V. (<i>ITMO University, St. Petersburg, Russia</i>), Tukmakova A.S. (<i>ITMO University, St. Petersburg, Russia</i>) Thin-film structures based on bismuth and antimony for terahertz photonics
<i>Oral 10:00-10:15</i>	Masyukov Maxim	Masyukov M.S., Vozianova A.V., Gubaidullina K.V., Khodzitsky M.K. (<i>ITMO University, St. Petersburg, Russia</i>) Circular dichroism of metasurfaces based on resonators with different N-fold rotational symmetry
<i>Oral 10:15-10:30</i>	Ezhov Dmitry	Ezhov D.M., Kochnev Z.S., Fakhtrudinova E.D., Svetlichnyi V.A. (<i>Tomsk State University, Tomsk, Russia</i>), Nikolaev N.A. (<i>Institute of Automation and Electrometry SB RAS, Novosibirsk, Russia</i>) Fe and 5BDSR based composite fluoropolymer films for THz photonics applications

Coffee break 10:30-10:55

<p><i>Invited</i> 10:55-11:15</p>	<p>Kuznetsov Sergei</p>	<p>Kuznetsov S.A., Milekhin A.G. (Rzhanov Institute of Semiconductor Physics SB RAS, Novosibirsk, Russia; Novosibirsk State University, Novosibirsk, Russia), Fedorinin V.N., Gelfand A.V. (Rzhanov Institute of Semiconductor Physics SB RAS, Novosibirsk, Russia), Gentshev A.N. (Budker Institute of Nuclear Physics SB RAS, Novosibirsk, Russia), Lazorskiy P.A. (Novosibirsk State University, Novosibirsk, Russia; Budker Institute of Nuclear Physics SB RAS, Novosibirsk, Russia), Nikolaev N.A. (Novosibirsk State University, Novosibirsk, Russia; Institute of Automation and Electrometry SB RAS, Novosibirsk, Russia), Mamrashev A.A.(Institute of Automation and Electrometry SB RAS, Novosibirsk, Russia)</p> <p style="text-align: center;">Functional devices of THz photonics based on plasmonic metasurfaces</p>
<p><i>Oral</i> 11:15-11:30</p>	<p>Zaitsev Anton</p>	<p>Zaitsev A.D., Demchenko P.S., Zykov D.V., Korotina E.A., Makarova E.S., Tkhorzhevskiy I.L., Tukmakova A.S., Kablukova N.S., Asach A.V., Novotelnova A.V., Khodzitsky M.K. (<i>ITMO University, St. Petersburg, Russia</i>, TYDEX, LLC, St. Petersburg, Russia)</p> <p style="text-align: center;">Optical and electronic properties of thin bismuth-antimony films in the terahertz frequency range</p>
<p><i>Oral</i> 11:30-11:45</p>	<p>Vozianova Anna</p>	<p>Sharaevsky M.V., Vozianova A.V., Kuzikova A.V., Masyukov M.S., Khodzitsky M.K. (<i>ITMO University, St. Petersburg, Russia</i>, TYDEX, LLC, St. Petersburg, Russia)</p> <p style="text-align: center;">3D terajets produced by dielectric structure</p>
<p><i>Oral</i> 11:45-12:00</p>	<p>Zykov Dmitrii</p>	<p>Zykov D.V., Demchenko P.S., Khodzitsky M.K. (<i>ITMO University, St. Petersburg, Russia</i>, TYDEX, LLC, St. Petersburg, Russia)</p> <p style="text-align: center;">Spectral analysis of a mixture of gasoline and diesel fuel using terahertz time-domain spectroscopy</p>
<p><i>Oral</i> 12:00-12:15</p>	<p>Dorozhkin Kirill</p>	<p>Dorozhkin K.V. (<i>National Research Tomsk State University, Tomsk, Russia</i>), Moskalenko V.D. (<i>National Research Tomsk State University, Tomsk, Russia</i>), Badin A.V. (<i>National Research Tomsk State University, Tomsk, Russia</i>), Gering M.O. (<i>National Research Tomsk State University, Tomsk, Russia</i>)</p> <p style="text-align: center;">Dielectric properties of 3D-printing ASA/MWCNTs composites at the Sub-THz frequency range</p>
<p><i>Oral</i></p>	<p>Skiba Viktor</p>	<p>Skiba V.E., Kistenev Y.V. (<i>National Research Tomsk State University, Tomsk, Russia</i>), Vrazhnov D.A.</p>

12:15-12:30		<p><i>(Institute of Strength Physics and Materials Science SB RAS, Tomsk, Russia; National Research Tomsk State University, Tomsk, Russia)</i></p> <p>Comparison of types of neural networks in the solution of the problem of spectral super-resolution</p>
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Lunch 12:30-13:30

<p><i>Invited</i> 13:30-13:50</p>	Ponomarev Dmitry	<p>Ponomarev D.S., Lavrukhin D.V., Yachmenev A.E., <i>(V.G. Mokerov Institute of Ultra High Frequency Semiconductor Electronics of RAS, Russia; Prokhorov General Physics Institute of RAS, Russia)</i>, Glinskiy I.A., Khabibullin R.A. <i>(V.G. Mokerov Institute of Ultra High Frequency Semiconductor Electronics of RAS, Russia; Bauman Moscow State Technical University, Russia)</i>, Goncharov Yu.G., Spektor I.E. <i>(Prokhorov General Physics Institute of RAS, Russia)</i>, Zaytsev K.I. <i>(Prokhorov General Physics Institute of RAS, Russia, Bauman Moscow State Technical University, Russia)</i></p> <p>High-efficient plasmon-assisted THz photoconductive devices</p>
<p><i>Oral</i> 13:50-14:05</p>	Kuzikova Anna	<p>Kuzikova A.V., Vozianova A.V., Khodzitsky M.K. <i>(ITMO University, St. Petersburg, Russia)</i></p> <p>Extraction the diagonal and off-diagonal components of permittivity tensor using terahertz time-domain polarimetry</p>
<p><i>Oral</i> 14:05-14:20</p>	Badin Alexander	<p>Badin A.V., Kuleshov G.E., Gering M.O., Teterina D.D. <i>(National Research Tomsk State University, Tomsk, Russia)</i></p> <p>Frequency features of electromagnetic response of the ferrite containing PETG composites at EHF range</p>

Coffee break 14:20-14:35

Type of report (plenary, invited, oral, poster)	Speaker's full name	Authors and the report title
Poster session "Materials"		
14:35-15:30	Nikolaev Nazar	Antsygin V.D., Mamrashev A.A., Nikolaev N.A., Potaturkin O.I. (<i>Institute of Automation and Electrometry SB RAS, Novosibirsk, Russia</i>). Optical properties of 1% Nd-doped KGW crystal in the terahertz range
	Nabilkova Alexandra	Nabilkova A., Oparin E., Ismagilov A.O., Zhukova M., Tcypkin A.N. (<i>ITMO University, St. Petersburg, Russia</i>), Chegnov V. Transmission of Fe- and Nd- doped ZnSe crystals in VIS, IR and THz ranges
	Nazarov Ravshanjon	Nazarov R., Pham Le, Tianmiao Zhang, Soboleva V., Uspenskaya M., Voizanova A., Khodzitsky M. (<i>ITMO University, St. Petersburg, Russia, TYDEX, LLC, St. Petersburg, Russia</i>) Terahertz optical properties of polymer composite based on electrospun PVC nanofibers
	Litvinov Egor	Litvinov E.A., Zikov D., Kablukova N.S., Khodzitsky M.K. (<i>ITMO University, St. Petersburg, Russia, TYDEX, LLC, St. Petersburg, Russia</i>) The investigation of the influence of optical pumping on optical properties of thin film bismuth in terahertz frequency range
	Mamrashev Alexander	Antsygin V.D., Mamrashev A.A., Nikolaev N.A. (<i>Institute of Automation and Electrometry SB RAS, Novosibirsk, Russia</i>), Pavlenko A.V. (<i>Southern Federal University, Rostov-on-Don, Russia; Southern Scientific Center RAS, Rostov-on-Don, Russia</i>) Terahertz properties of thin film strontium barium niobate single crystals
	Nazarov Ravshanjon	Voizanova A.V., Kuzikova A.V., Nazarov R.Kh., Demchenko P.S., Zhang T., Khodzitsky M.K. (<i>ITMO University, St. Petersburg, Russia</i>), Zakharova M.V., Podshivalov A.V., Fokina M.I., Uspenskaya M.V. (<i>ITMO University, St. Petersburg, Russia, TYDEX, LLC, St. Petersburg, Russia</i>) Phantom tissues from membrane biopolymer composite materials for terahertz applications
	Suslyayev Valentin	Dorozhkin K.V. (<i>National Research Tomsk State University, Tomsk, Russia</i>), Suslyayev V.I. (<i>National Research Tomsk State University, Tomsk, Russia</i>), Kazmina O.V. (<i>National Research Tomsk Polytechnic University,</i>

	<p><i>Tomsk, Russia</i>), Denisenko A.V., Matyskin K.E., Korshunov A.V. (<i>National Research Tomsk State University, Tomsk, Russia</i>)</p> <p>Electromagnetic characteristics of light terahertz materials</p>
Zyatkov Denis	<p>Zyatkov D.O., Kochnev Z.S., Yurchenko V.I., Cherepanov V.N (<i>National Research Tomsk State University, Tomsk, Russia</i>)</p> <p>Clustering of a magnetic fluid under the influence of a magnetic field for application in THz photonics</p>
Demchenko Petr	<p>Demchenko P.S., Grebenchukov A.N., Vozianova A.V., Khodzitsky M.K. (<i>ITMO University, St. Petersburg, Russia, TYDEX, LLC, St. Petersburg, Russia</i>)</p> <p>Multilayer graphene – ion gel amplitude modulator for terahertz frequency range</p>
Kochnev Zahar	<p>Kochnev Z.S. (<i>National Research Tomsk State University, Tomsk, Russia</i>), Ezhov D.M. (<i>National Research Tomsk State University, Tomsk, Russia</i>), Fakhtrudinova E.D. (<i>National Research Tomsk State University, Tomsk, Russia</i>), Lapin I.N. (<i>National Research Tomsk State University, Tomsk, Russia</i>), Svetlichnyi V.A. (<i>National Research Tomsk State University, Tomsk, Russia</i>), Cherepanov V.N. (<i>National Research Tomsk State University, Tomsk, Russia</i>)</p> <p>THz properties of single-layer Ni coated copper foiled polyimide gratings</p>
Ezhov Dmitry	<p>Ezhov D.M., Svetlichnyi V.A. (<i>Tomsk State University, Tomsk, Russia</i>), Nikolaev N.A., Mamrashev A.A. (<i>Institute of Automation and Electrometry SB RAS, Novosibirsk, Russia</i>), Lanskii G.V. (<i>Institute of Monitoring of Climatic and Ecological Systems SB RAS, Tomsk, Russia</i>), Andreev Yu.M. (<i>Institute of High Current Electronics SB RAS, Tomsk, Russia</i>)</p> <p>Down-conversion of near-IR lasers into the THz range in β-BIB3O6</p>
Mostovshchikov Andrei	<p>Mostovshchikov A.V. (<i>Tomsk University of Control Systems and Radioelectronics, Tomsk, Russia; National Research Tomsk Polytechnic University, Tomsk, Russia</i>), Il' in A.P., Chumerin P.Yu., Kalinich I.K., Korshunov A.V. (<i>National Research Tomsk Polytechnic University, Tomsk, Russia</i>)</p> <p>Impact of the short-pulsed microwave radiation on the metal nanopowders properties</p>
Shematilo Tatyana	<p>Kuleshov G.E., Badin A.V., Shematilo T.N., Trofimov E.A. (<i>National Research Tomsk State University, Tomsk, Russia</i>)</p> <p>Sub-THz absorbtion properties of black carbon conteing composites for applicatrion in additive tichnology</p>

VIRTUAL HALL 2

<i>Type of report (plenary, invited, oral, poster)</i>	<i>Speaker's full name</i>	<i>Authors and the report title</i>
<p>Session "Systems" Session topics:</p> <ul style="list-style-type: none"> • Components • Near-field techniques and microscopy • Imaging and remote sensing: components and systems • Metrology 		
<p><i>Invited</i> 9:00-9:20</p>	<p>Gavrilenko Vladimir</p>	<p>Gavrilenko V.I., Gavrilenko V.I., Morozov S.V., Rumyantsev V.V., Utochkin V.V., Kulikov N.S., Razova A.A., Dubinov A.A., Aleshkin V.Ya. (<i>Institute for Physics of Microstructures RAS, Nizhny Novgorod, Russia; Lobachevsky State University of Nizhny Novgorod, Nizhny Novgorod, Russia</i>), Fadeev M.A. (<i>Institute for Physics of Microstructures RAS, Nizhny Novgorod, Russia; Université de Montpellier II, Montpellier, France</i>), Kudryavtsev K.E. (<i>Institute for Physics of Microstructures RAS, Nizhny Novgorod, Russia</i>), Mikhailov N.N. (<i>Novosibirsk State University, Novosibirsk, Russia; Rzhanov Institute of Semiconductor Physics SB RAS, Novosibirsk, Russia</i>), Dvoretckiy S.A. (<i>Rzhanov Institute of Semiconductor Physics SB RAS, Novosibirsk, Russia</i>), Teppe F. (<i>Université de Montpellier II, Montpellier, France</i>), Sirtori C.</p> <p>Stimulated emission in far and mid infrared ranges in HgCdTe quantum well hetrostructures</p>
<p><i>Invited</i> 9:20-9:40</p>	<p>Vax Vladimir</p>	<p>Vaks V.L. (<i>Institute Physics of Microstructures RAS, Nizhny Novgorod, Russia</i>), Baranov A.N. (<i>Institute of Electronics and Systems (IES), UMR 5214 CNRS - University of Montpellier, France</i>)</p> <p>High resolution THz spectroscopy based on quantum cascade lasers for medical and biological applications</p>
<p><i>Invited</i> 9:40-10:00</p>	<p>Minin Igor</p>	<p>Minin I.V., Minin O.V. (<i>Tomsk State University, Tomsk, Russia; Tomsk Polytechnic University, Tomsk, Russia</i>), Delgado-Notario J.A. (<i>Tohoku Institute of Technology, Sendai, Japan</i>), Calvo-Gallego J., Velázquez-Pérez J.E., Meziani Y.M. (<i>Universidad de Salamanca, Salamanca, Spain</i>), Ferrando-Bataller M. (<i>Universidad Politécnic de Valencia, Valencia, Spain</i>)</p> <p>Enhancement of Detector resposnivity using terajet effect</p>

<p><i>Oral</i> 10:00-10:15</p>	<p>Babichev Andrei</p>	<p>Babichev A.V., Andryushkin V.V., Kolodeznyi E.S., Egorov A.Yu. (ITMO University, St. Petersburg, Russia), Voznyuk G.V. (ITMO University, St. Petersburg, Russia, Ioffe Institute, St. Petersburg, Russia), Gladyshev A.G. (Connector Optics LLC, St. Petersburg, Russia), Denisov D.V. (St. Petersburg Electrotechnical University “LETI”, St. Petersburg, Russia), Dudelev V.V.², Kuritsyn D.I.⁵, Mitrofanov M.I., Slipchenko S.O., Lyutetskii A.V., Evtikhiev V.P., Sokolovskii G.S., Pikhtin N.A. (Ioffe Institute, St. Petersburg, Russia), Karachinsky L.Ya.¹⁻³, Novikov I.I.¹⁻³ (ITMO University, St. Petersburg, Russia, Ioffe Institute, St. Petersburg, Russia, Connector Optics LLC, St. Petersburg, Russia), Morozov S.V. (Institute for Physics of Microstructures RAS, Nizhny Novgorod, Russia)</p> <p style="text-align: center;">Surface-emitting 7-8 μm range ring cavity quantum-cascade laser</p>
<p><i>Oral</i> 10:15-10:30</p>	<p>Boyko Andrey</p>	<p>Boyko A.A. (Novosibirsk State University, Novosibirsk, Russia; Institute of Laser Physics SB RAS, Novosibirsk, Russia; National Research Tomsk State University, Tomsk, Russia), Kostyukova N.Yu., Kolker D.B., Erushin E.Yu., Miroshnichenko I.B., Gorchakov A.V. (Novosibirsk State University, Novosibirsk, Russia; Institute of Laser Physics SB RAS, Novosibirsk, Russia; Novosibirsk State Technology University, Novosibirsk, Russia; Special technologies, Ltd., Novosibirsk, Russia), Meshalkin A.B. (Institute of Thermophysics SB RAS, Novosibirsk, Russia), Kistenev Yu.V. (National Research Tomsk State University, Tomsk, Russia), Akhmatkhanov A.R., Shur V.Y. (Institute of natural Sciences and mathematics, Ural Federal University, Yekaterinburg, Russia)</p> <p style="text-align: center;">Pump source for difference frequency generation based on domestic PPKTP crystal</p>

Coffee break 10:30-10:45

<p><i>Oral</i> 10:45-11:00</p>	<p>Lobanov Yury</p>	<p>Lobanov Y.V. (Moscow Pedagogical State University, Moscow, Russia), Vakhtomin Yu.B. (Moscow Pedagogical State University, Moscow, Russia), Pentin I.V. (Moscow Pedagogical State University, Moscow, Russia), Tretyakov I.V. (Moscow Pedagogical State University, Moscow, Russia; Astro Space Center of P.N.Lebedev Physical Institute, Moscow, Russia), Trifonov A.V. (Moscow Pedagogical State University, Moscow, Russia), Khabibullin R.A. (V.G. Mokerov Institute of Ultra High Frequency Semiconductor Electronics of RAS, Moscow, Russia), Shchavruk N.V. (V.G. Mokerov Institute of Ultra High Frequency Semiconductor Electronics of RAS, Moscow, Russia), Galiev R.R. (V.G. Mokerov Institute of Ultra High Frequency Semiconductor Electronics of RAS, Moscow, Russia), Goltsman G.N. (Moscow Pedagogical State</p>
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		<p><i>University, Moscow, Russia; National Research University Higher School of Economics, Moscow, Russia)</i></p> <p>Output power and spectral characteristics of terahertz quantum cascade lasers operated in a pulsed mode</p>
<p><i>Oral</i> 11:00-11:15</p>	Vasil'evskii Ivan	<p>Vasil'evskii I.S. (<i>National Research Nuclear University «MEPhI», Moscow, Russia</i>), Khabibullin R.A. (<i>V.G. Mokerov Institute of Ultra High Frequency Semiconductor Electronics</i>), Ushakov D.V. (<i>Belarusian State University, Minsk, Belarus</i>), Gavrilenko V.I. (<i>Institute for Physics of Microstructures, Russian Academy of Sciences, Nizhny Novgorod, Russia</i>)</p> <p>THz quantum cascade lasers: novel approaches for original designs, high-quality MBE growth for the high-temperature laser performance</p>
<p><i>Oral</i> 11:15-11:30</p>	Markelov Alexey	<p>Markelov A.A., Karapuzikov A.I., Miroshnichenko M.B. (<i>Institute of Laser Physics SB RAS, Novosibirsk, Russia; Institute of Strength Physics and Materials Science SB RAS, Tomsk, Russia; SP Equipment, Novosibirsk, Russia</i>)</p> <p>Terahertz laser with optical pumping for photo-acoustic spectroscopy application in medicine</p>
<p><i>Oral</i> 11:30-11:45</p>	Mamrashev Alexander	<p>Mamrashev A.A. (<i>Institute of Automation and Electrometry SB RAS, Novosibirsk, Russia</i>), Minakov F.A. (<i>Institute of Automation and Electrometry SB RAS, Novosibirsk, Russia; Novosibirsk State University, Novosibirsk, Russia</i>), Nikolaev N.A. (<i>Institute of Automation and Electrometry SB RAS, Novosibirsk, Russia</i>), Rybak A.A. (<i>Institute of Automation and Electrometry SB RAS, Novosibirsk, Russia; Novosibirsk State University, Novosibirsk, Russia</i>), Kuznetsov S.A. (<i>Rzhanov Institute of Semiconductor Physics SB RAS, Novosibirsk, Russia; Novosibirsk State University, Novosibirsk, Russia</i>), Gelfand A.V. (<i>Rzhanov Institute of Semiconductor Physics SB RAS, Novosibirsk, Russia</i>)</p> <p>Broadband 1D-grid-based terahertz polarizers and their applications in THz-TDS</p>
<p><i>Oral</i> 11:45-12:00</p>	Prischepa Vladimir	<p>Prischepa V.V., Kistenev Y.V., Vrazhnov D.A. (<i>National Research Tomsk State University, Tomsk, Russia</i>), Cuisset A., Dhont G., Bocquet R., Hindle F., Mouret G. (<i>Université du Littoral Côte d'Opale, Dunkerque, France</i>)</p> <p>Application of IR-THz rovibrational spectroscopy and artificial intelligence for trace gas analysis of atmospheric compounds</p>

Lunch 12:00-13:00

<i>Type of report (plenary, invited, oral, poster)</i>	<i>Speaker's full name</i>	<i>Authors and the report title</i>
Session "Astronomy, Astrophysics and Atmospheric Science" Session topics: <ul style="list-style-type: none">• Components and devices for mm-wave astronomy• IR &THz Monitoring the atmosphere, environment		
<i>Invited 13:00-13:20</i>	Khudchenko Andrey	Khudchenko A. (<i>Institute of RadioEngineering and Electronics RAS, Moscow, Russia; Astro Space Center of P.N.Lebedev Physical Institute, Moscow, Russia</i>), Koshelets V.P. (<i>Institute of RadioEngineering and Electronics RAS, Moscow, Russia; Astro Space Center of P.N.Lebedev Physical Institute, Moscow, Russia</i>), Rudakov K. (<i>Institute of RadioEngineering and Electronics RAS, Moscow, Russia; Central Aerological Observatory, Dolgoprudny, Russia; University of Groningen, Groningen, Netherlands</i>), Dmitriev P. (<i>Institute of RadioEngineering and Electronics RAS, Moscow, Russia</i>), Hesper R. (<i>University of Groningen, Groningen, Netherlands</i>), Tretyakov I. (<i>Astro Space Center of P.N.Lebedev Physical Institute, Moscow, Russia</i>), Heiter C., Klein B. (<i>Max Planck Institute for Radio Astronomy, Bonn, Germany</i>), Baryshev A.M. (<i>University of Groningen, Groningen, Netherlands</i>) Development of SIS receivers for Radio Astronomy for space project millimetron and for ground-based observations
<i>Invited 13:20-13:40</i>	Surin Leonid	Surin L.A. (<i>Institute of Spectroscopy RAS, Troitsk, Russia</i>) Jet spectroscopy and molecular dynamics of weakly bound complexes of astrophysical interest
<i>Oral 13:40-13:55</i>	Bubnov Grigoriy	Bubnov G.M., Vdovin V.F. (<i>Institute of Applied Physics RAS, Nizhny Novgorod, Russia; Nizhny Novgorod State Technical University, Nizhny Novgorod, Russia</i>), Marukhno A.S., Mingaliev M.G. (<i>Special Astrophysical Observatory of RAS, Nizhny Arkhyz, Russia</i>), Zemlyanukha P.M., Zinchenko I.I. (<i>Institute of Applied Physics RAS, Nizhny Novgorod, Russia</i>) Millimeter-wave astroclimate studies in the North Caucasus: expedition and first results
<i>Oral 13:55-14:10</i>		

Coffee break 14:10-14:30

<i>Type of report (plenary, invited, oral, poster)</i>	<i>Speaker's full name</i>	<i>Authors and the report title</i>
Poster session "Systems"		
14:30-15:30	Oparin Egor	Oparin E.N., Parpulova K.V., Zhukova M.O., Melnik M.V., Tcypkin A.N. (<i>ITMO University, St. Petersburg, Russia</i>) Elongation of THz pulses in planar waveguides with 2D photonic crystals
	Osintseva Natalya	Choporova Yu.Yu., Osintseva N.D., Knyazev B.A. (<i>Institute of Nuclear Physics SB RAS, Novosibirsk, Russia; Novosibirsk State University, Novosibirsk, Russia</i>), Pavelyev V.S., Tukmakov K.N. (<i>Samara National Research University, Samara, Russia</i>) Terahertz vector vortex beams for surface plasmon generation
	Liu Cheng-Yang	Yan-Yu Liu, Cheng-Yang Liu (<i>National Yang-Ming University, Taipei City, Taiwan</i>), Minin I.V., Minin O.V. (<i>National Research Tomsk State University, Tomsk, Russia</i>) Subwavelength photonic hook generated by shaped fiber tip with asymmetric terahertz radiation
	Kameshkov Oleg	Kameshkov O.E., Knyazev B.A., Gerasimov V.V. (<i>Institute of Nuclear Physics SB RAS, Novosibirsk, Russia; Novosibirsk State University, Novosibirsk, Russia</i>) Study of wavelength and subwavelength gratings for terahertz plasmonic
	Proyavin Michail	Proyavin M.D. , Manuilov V.N., Gachev I. G., Maslov V.V., Morozkin M.V., Kuftin A. N. , Glyavin M. Yu. (<i>Institute of Applied Physics Russian Academy of Sciences, Nizhny Novgorod, Russia</i>), Tai E.M. (² Gycom Ltd., Nizhny Novgorod, Russia) Development of a new generation of highly efficient technological medium-power gyrotrons based on shielded solenoids
	Zykova Lydia	Zykova L.A., Khasanov I.Sh., Nikitin A.K. (<i>Scientific and technological center of unique instrument making of the Russian Academy of Sciences, Moscow, Russia</i>), Gerasimov V.V., Knyazev B.A. (<i>Institute of Nuclear</i>

		<i>Physics SB RAS, Novosibirsk, Russia; Novosibirsk State University, Novosibirsk, Russia)</i> Terahertz surface plasmon resonance ghost imaging and microscopy
	Udalov Andrey	Rogozhnikov D.S., Shesterikov E.V., Udalov A.A. (<i>V.E. Zuev Institute of Atmospheric Optics SB RAS, Tomsk, Russia</i>) PIN photodiode on an AlGaAs/GaAs/AlGaAs heterostructure simulation for work in the upper atmosphere

VIRTUAL HALL 2

<i>15:30-16:00</i>	<i>Closing ceremony</i>	