

time	Hall A	Hall B	Hall C	Hall D												
<b>Monday, October 22</b>																
9:00	<b>Registration starts</b>															
14:00-14:30	<b>OPENING (HALL A)</b>															
<b>Plenary session 1</b>																
14:30-16:00	P1. <b>Nikolay A. Vinokurov</b> Generating High Power Terahertz and Far Infrared Electromagnetic Radiation with Relativistic Electrons (40 min)															
16:00-16:30	P2. <b>Gun-Sik Park</b> Investigations of hydration dynamics in biomedical systems using terahertz waves (40 min)															
16:30-18:00	<b>Coffe break</b>															
16:30-18:00	<b>S1.1 Electronic sources of THz &amp; MW radiation, synchrotron radiation, free-electron lasers</b>		<b>S2.1 Optoelectronic &amp; solid-state sources of THz radiation</b>		<b>S3.1 Generation of THz radiation by intense laser pulses</b>		<b>S10.1 Medical and biological applications of THz radiation</b>									
	Vladimir	<b>Bratman</b>	Prospective THz gyrotrons for high-field magneto-resonance spectroscopy	Oral	Vladimir	<b>Gavrilenko</b>	THz stimulated emission at interband transitions in HgTe/CdHgTe quantum wells	Invited	Tsune- yuki	<b>Ozaki</b>	THz nonlinear optics in the sub-cycle regime	Keynote	Vladimir	<b>Vaks</b>	High resolution terahertz spectroscopy for medical, biological and agricultural applications	Invited
	Yoshi- nori	<b>Tatematsu</b>	Recent progress in development and application of sub-THz gyrotrons in University of Fukui	Invited	Nickola- y	<b>Kinev</b>	Wideband Josephson THz flux-flow oscillator integrated with the slot lens antenna and the harmonic mixer	Oral	Olga	<b>Kosareva</b>	Terahertz generation from single and multiple filaments in air	Invited	Kirill	<b>Zaytsev</b>	Intraoperative diagnosis of malignant brain gliomas using terahertz pulsed spectroscopy and optical coherence tomography	Invited
	Tobia- s	<b>Ruess</b>	Towards Fully Automated Systems for the Generation of Very High Order Modes in Oversized Waveguides	Oral	Alexand- er	<b>Klushin</b>	Evidence of synchronization of large Josephson-junction arrays by traveling electromagnetic waves	Oral	Stefan	<b>Skupin</b>	Resonant Effects in Terahertz Generation with Laser-Induced Gas Plasmas	Invited	Yury	<b>Kistenev</b>	Applications of THz laser spectroscopy and machine learning for medical diagnostics	Invited
	Olgier- d	<b>Dumbrajs</b>	Possible gyrotron operation in the 'no start current' zone	Oral	Vladisla- v	<b>Kurin</b>	Active Josephson traveling wave antennae as prospective terahertz oscillators	Oral	Ivan	<b>Oladyshkin</b>	Role of surface plasmons in laser-induced THz generation from metals	Oral	Nikita	<b>Chernomyrdin</b>	Biomedical applications of terahertz solid immersion microscopy	Oral
	Vladi- mir	<b>Manuilov</b>	Electron-optics systems with decreased life-time of trapped electrons for terahertz band gyrotrons	Oral										Andrei	<b>Postnikov</b>	A device to inspect a skin cancer tumour in the terahertz range, transferring the image into the infrared
19:00-21:00	<b>Welcome party</b>															
<b>Tuesday, October 23</b>																
<b>Plenary session 2</b>																
P3. <b>Andrew K. Martusevich</b> ; Alexander V. Kostrov " <i>Biomedical applications of microwave radiation: innovative approaches</i> " (40 min)																
P4. <b>Stelios Tzortzakis</b> " <i>Extreme THz fields from near and mid-infrared laser filaments</i> " (40 min)																
9:00-11:00	P5. <b>Chi Kuang Sun</b> " <i>Femtosecond Acoustics and Terahertz Ultrasonics</i> " (40 min)															
11:00-11:30	<b>Coffe break</b>															

11:30-13:30		S1.2 Electronic sources of THz & MW radiation, synchrotron radiation, free-electron lasers				S2.2 Optoelectronic & solid-state sources of THz radiation				S3.2 Generation of THz radiation by intense laser pulses				S6.1 Study of materials (including nano- and metamaterials) with the help of THz & MW radiation. Time-domain and CW spectroscopy			
	Gun-Sik	Park	THz generation from high-Q Fano metallic metamaterial	Invited	Viktor	Ustinov	Molecular beam epitaxial growth of semiconductor heterostructures for THz electronics	Keynote	Alexander	Shkurinov	Terahertz Wave Generation from Liquefied Gas	Invited	Leonid	Surin	Millimeter-wave spectroscopy of weakly bound molecular complexes and small clusters	Invited	
	Andrey	Pankratov	Thermal regimes and THz generation from BSCCO mesas	Oral	Valery	Shastin	Terahertz lasers based on donor intracenter transitions in silicon.	Invited	Alexander	Popov	New Approach to Generation and Amplification of the THz Radiation in Plasma Created by Intense Two-Color Laser Fields	Invited	Robin	Bocquet	Modelisation of a gas phase polarization induced by a 200 GHz chirped pulse	Invited	
	Andrey	Arzhannikov	High power THz-range Wave generation based on Transformation of Plasma Waves Pumped by High-current Relativistic Electron Beam	Oral	Gaël	Mouret	Frequency comb for THz metrology	Oral	Alexander	Silaev	Laser-plasma generation of tunable ultrashort pulses in terahertz and mid-infrared ranges	Oral	Evgeniy	Chesnokov	The first observation of the free induction signals of OH radicals in the terahertz region	Invited	
	Andrei	Savilov	THz radiation of stabilized dense electron bunches	Oral	Dmitry	Ponomarev	Plasmonic terahertz antennas with high-aspect ratio metal gratings	Oral	Sergey	Stremoukhov	Terahertz radiation in two-color laser fields: from single atom to extended gas response	Oral	Maksim	Koshelev	Accurate broadband THz molecular spectroscopy	Oral	
	Alexander	Vikharev	Generation of powerful subterahertz superradiance pulses for high gradient acceleration of charged particles	Oral					Pavel	Chizhov	Modulation of two-color laser-induced filament terahertz emission by effective length variation.	Oral	Tatyana	Odintsova	Far IR continuum absorption of H <sub>2</sub> 16O and H <sub>2</sub> 18O	Oral	
	Andrea	Doria	Novel Schemes for Compact FELs in the THz Region: ENEA Experience and Perspectives	Invited					Aleksandr	Ushakov	Backward terahertz emission from two-color laser induced plasma spark	Oral	Alexander	Tsvetkov	Recent results on THz gyrotron-based molecular spectroscopy	Oral	
13:30-14:30		Lunch															
14:30-16:00		Poster session 1 (Sections S6-S10: 34 posters)															
16:00		Excursion															

Wednesday, October 24

**Plenary session 3**

9:00-11:00 P6. **Alessandro Tredicucci** · *Terahertz quantum cascade lasers: what way forward?* (40 min)  
 P7. **Dmitry Khokhlov** *Terahertz probing of topological surface electron states* (40 min)  
 P8. (conference sponsors) **Steffen Neidhardt**, Rohde & Schwarz, Munich, Germany; *Measurement of radome material for 77/79 GHz automotive radar integration* (30 min)

11:00-11:30 **Coffe break**

S1.3 Electronic sources of THz & MW radiation, synchrotron radiation, free-electron lasers				S4.1 Quantum cascade lasers				S3.3 Generation of THz radiation by intense laser pulses				S10.2 Medical and biological applications of THz radiation				
11:30-13:30	Naum	<b>Ginzburg</b>	Generation of Sub-Terahertz Surface Waves by Relativistic Electron Beams: Quasioptical Theory, Simulations and Experiments	Oral	Luigi	<b>Consolino</b>	Metrological-grade THz radiation	Invited	Fabian	<b>Rotermund</b>	THz nonlinear photonics: generation and applications	Invited	Olga	<b>Smolyanska ya</b>	Complex study of interaction of terahertz radiation with bio-like objects: theoretical and numerical modelling, real objects and phantom experiments	Invited
	Pascal	<b>Roy</b>	Intense THz coherent Synchrotron Radiation for Ultra High resolution Spectroscopy and Ultra-fast THz measurements	Invited	Alexander	<b>Andronov</b>	Bloch and Wannier-Stark THz emissions in superlattices: rival of Quantum Cascade Laser?	Oral	Kodo	<b>Kawase</b>	Multi wavelength injection-seeded THz parametric system	Invited	Alla	<b>Polyakova</b>	The mechanism of action of microwave radiation on the parameters of homeostasis in living systems	Oral
	Nikola i	<b>Peskov</b>	Development of powerful long-pulse Bragg FELs operating from sub-THz to THz bands based on linear induction accelerators: recent results and projects	Oral	Rostislav	<b>Arkhipov</b>	Generation of ultra-short pulses via self-induced transparency mode-locking regime in lasers	Invited	Andrey	<b>Brantov</b>	Laser induced THz Sommerfeld waves along metal wire.	Oral	Vladimir	<b>Zapevalov</b>	High-power microwaves against locusts and other harmful animals	Oral
	Andrey	<b>Grigoriev</b>	Problems of amplifier klystron advancing into terahertz band	Oral	Andrey	<b>Babichev</b>	Quantum-cascade lasers of mid-IR spectral range: epitaxy, diagnostics and device characteristics	Invited	Andrey	<b>Kuratov</b>	Plasma mechanisms of terahertz electromagnetic wave generation due to intense laser-plasma interaction	Oral	Sergey	<b>Peltek</b>	Nonthermal impact of terahertz (THz) radiation on living systems	Oral
	Evgen ee	<b>Myasin</b>	SUBTHZ OROTRON WITH ONE AND TWO ELECTRON BEAMS	Oral	Rustam	<b>Khabibullin</b>	Terahertz quantum cascade laser with silver- and gold-based waveguide	Invited	Abel	<b>Woldegeorgis</b>	Generation of sub GV/m longitudinal terahertz electric fields from intense laser-solid density plasma interactions	Oral	Vasyl	<b>Denysenkov</b>	DNP APPLICATIONS AT 9.4 TESLA BY USING TERAHERTZ IRRADIATION	Oral
	Nikita	<b>Ryskin</b>	Development and modeling of miniaturized traveling-wave tubes in millimeter and sub-THz band	Oral	Yury	<b>Lobanov</b>	Characterization of the THz QCL Using Fast Superconducting Hot Electron Bolometer	Oral	Dongwe n	<b>Zhang</b>	Coherent multichannel dynamics of aligned molecules resolved by two dimensional high-harmonic and terahertz spectroscopy (2D-HATS)	Invited				

13:30-14:30 **Lunch**

14:30-16:30	<b>S1.4 Electronic sources of THz &amp; MW radiation, synchrotron radiation, free-electron lasers</b>				<b>S4.2 Quantum cascade lasers</b>				<b>S3.4 Generation of THz radiation by intense laser pulses</b>				<b>S10.3 Medical and biological applications of THz radiation</b>			
	Alexander	Marek	SIMULATION OF COMPONENTS FOR GYRO-DEVICES COUPLED IN A FEEDBACK LOOP TO GENERATE ULTRA-SHORT RF PULSES	Oral	Alexei	Baranov	Long wavelength InAs-based quantum cascade lasers.	Keynote	Matteo	Clerici	Broadband THz generation and detection	Invited	Maxim	Nazarov	Solutions spectroscopy in the extended THz frequency range	Invited
	Vladislav	Zaslavsky	Terahertz-Range Gyrodevices of Planar Geometry	Oral	Andrey	Khudchenko	Phase-locking Techniques for THz Quantum Cascade Lasers	Invited	Sergey	Bodrov	A modified tilted-pulse-front excitation scheme for efficient terahertz generation in LiNbO3	Oral	Olga	Cherkasova	Study of blood and its components by terahertz pulsed spectroscopy	Invited
	Dmitry	Sobolev	3D printed periodic structures for subterahertz sources	Oral	Kirill	Maremyanin	Investigation of the emission spectra of pulsed THz quantum cascade lasers and their use for magnetospectroscopy of semiconductors	Oral	Sergey	Sychugin	Generation of DC fields ahead of ultrashort laser pulses in electro-optic crystals	Oral	Ilya	Ozheredov	Application of THz radiation for in situ control of eye cornea hydration level	Invited
	Vladislav	Tsarev	Quasi-fractal PBG structures for Multi-Beam Devices	Oral	Maxim	Nazarov	Polymer waveguides for THz QCL radiation delivery and filtering	Invited	Yury	Klimachev	THz sources based on frequency conversion of multi-line molecular lasers in nonlinear crystals and on optically pumped molecular lasers	Oral	Mikhail	Khodzitsky	THz time-domain spectroscopy for non-invasive assessment of water content in biological samples	Oral
	<b>S7.1 Interaction of high-power THz and MW radiation with matter. Application of THz radiation for the research and control of ultrafast process in physics, chemistry and biology</b>				Ivan	Vasil'evskii	Temporal stability and absolute composition issues in molecular beam epitaxy of AlGaAs/GaAs THz QCL	Oral	Nickolay	Kuzechkin	Study of the cluster formation dynamics and its affect on generation of THz and X-Ray radiation in the expanding gas jet	Oral	<b>S6.2 Study of materials (including nano- and metamaterials) with the help of THz &amp; MW radiation. Time-domain and CW spectroscopy</b>			
	Vladimir	Pavelyev	Terahertz optical elements for control of high-power laser irradiation	keynote	Fedor	Zubov	3 THz quantum-cascade laser with metallic waveguide based on resonant-phonon depopulation scheme	Oral	Igor	Kinyaevskiy	CO laser down-conversion into the THz range with ZnGeP2 crystal	Oral	Konstantin	Motovilov	Water and conductivity in bioorganic materials: complicated interplay	Invited
													Elena	Zhukova	H2O molecules hosted by a crystalline matrix – new state of water.	Invited
16:30-17:00	<b>Coffe break</b>															
17:00-18:30	<b>Poster session 2 (Sections S1-S5: 43 posters)</b>															
20:00	<b>Conference dinner</b>															

Thursday, October 25

Plenary session 4																
9:00-9:40	P9. To be announced (40 min)															
09:40-11:10	Special Section "Status of the User Facilities Centers"				S9.1 Systems of security and non-destructive control using THz and MW radiation. Remote sensing with THz radiation. Communication in THz frequency range				S7.2 Interaction of high-power THz and MW radiation with matter. Application of THz radiation for the research and control of ultrafast process in physics, chemistry and biology							
	Mikhail	Glyavin	From millimeter to microns - IAP RAS powerful sources for various applications	keynote	Vyacheslav	Trofimov	Detection and identification of a substance with an inhomogeneous surface using the effective time-dependent THz spectroscopy method and emission frequency up-conversion	Invited	Andrey	Savel'ev	Nonlinear Transfer of Intense Few Cycle Terahertz Pulse Through Opaque semiconductors	Invited				
	Young Uk	Jeong	Ultrafast THz-pump & Electron-probe Facility at KAER	keynote	Yulia	Choporova	Measuring the topological charge of vortices with diffraction and interference techniques	Oral	Sergei	Kozlov	Disappearance of Self-Focusing for Few-Cycle THz Pulses	Invited				
	Oleg	Shevchenko	Novosibirsk free electron laser facility	keynote	Dmitrii	Pavelev	Devices and system based on quantum semiconductor superlattices for the frequency range 0.1-10 THz.	Oral	Maria	Krikunova	Ultrafast multi-electron dynamics studied with THz-field streaking	Oral				
					Andrew	Angeluts	Influence of pollution and extraneous inclusions on the scattering of THz radiation by fabric	Oral	Kirill	Grishunin	Terahertz induced magnetization dynamic in a weak ferromagnet FeBO3	Oral				
					Alexander	Tsvetkov	Using a gyrotron as a source of modulated radiation for data transmission systems in the terahertz range	Oral	Sergey	Pavlov	Challenges of Raman scattering at THz frequencies	Oral				
11:10-11:40	Coffe break															
11:40-13:30	Special Section "Status of the User Facilities Centers"				S5.1 Detection of THz & MW radiation. Metrology in THz frequency range				S6.3 Study of materials (including nano- and metamaterials) with the help of THz & MW radiation. Time-domain and CW spectroscopy							
	Boris	Knyazev	Recent experiments at NovoFEL user stations	keynote	Galiya	Kitaeva	Optical – terahertz biphotons	Invited					Alexey	Nikitin	Terahertz plasmonics: achievements and prospects	Invited
	John Michael	Klopf	THz science at FELBE	keynote	Igor	Ilyakov	Terahertz Electro-Optic Sampling in Crystals with High Natural Birefringence	Oral					Oleg	Potaturkin	Oxide nonlinear crystals: optical properties and phase-matching for terahertz wave generation	Invited
	G.P.	Gallerano	Terahertz and mm-wave applications at ENEA-Frascati	keynote	Anna	Bogatskaya	Optical-mechanical analogy approach for the purposes of detection of IR-MW radiation	Oral					Evgeny	Serov	Dielectrics for output windows of medium power gyrotrons	Oral
					Valery	Koshelets	Low-noise THz-range SIS Receivers for Ground-based and Space Radio Astronomy	Oral					Sergey	Bodrov	Terahertz induced optical second harmonic generation from dielectric interfaces: mechanism and application	Oral

					Alexander <b>Shugurov</b>	Terahertz pulse detection by direct intensity modulation of the probe laser beam in GaAs	Oral						Marat <b>Gafurov</b>	Coherent control of electron-nuclear states of rare-earth ions in crystals using radio-frequency and microwave radiation.	Oral
													Mikhail <b>Khodzitsky</b>	Optically tunable dielectric properties of single-walled carbon nanotubes for terahertz wave applications	Oral
13:30-14:30	<b>Lunch</b>														
14:30-16:00	<b>S9.2 Systems of security and non-destructive control using THz and MW radiation. Remote sensing with THz radiation. Communication in THz frequency range</b>				<b>S5.2 Detection of THz &amp; MW radiation. Metrology in THz frequency range</b>				<b>S7.3 Interaction of high-power THz and MW radiation with matter. Application of THz radiation for the research and control of ultrafast process in physics, chemistry and biology</b>				<b>S6.4 Study of materials (including nano- and metamaterials) with the help of THz &amp; MW radiation. Time-domain and CW spectroscopy</b>		
	Patrick <b>Mounaix</b>	Submillimeter wave Tomography and image processing advances : Applications additive manufacturing quality control	Invited	Vyacheslav <b>Vdovin</b>	Arrays of annular antennas with SINIS bolometers for SubTHz radioastronomy	Oral	Vitaly <b>Kubarev</b>	Experiments using extreme parameters of NovoFEL radiation	Invited	Alexander <b>Boris</b>	Exploring in-gap excitations in high-Tc superconducting films by THz and infrared spectroscopy	Invited			
	Leonid <b>Skvortsov</b>	The concept of construction of inspection systems based on quantum-cascade lasers	Oral	Ivan <b>Andreev</b>	Imaging of powerful terahertz	Oral	Roman <b>Zhukavin</b>	Relaxation of Coulomb states in semiconductors probed by FEL radiation	Oral	Nazar <b>Nikolaev</b>	Angle-Susceptible Sensing Metasurface in Terahertz Regime	Oral			
	<b>S8. Terahertz &amp; microwave imaging: tomography, holography and near-field microscopy</b>				Alexander <b>Sobolev</b>	Wideband metamaterial-based array of SINIS bolometers	Oral	Oleg <b>Chefonov</b>	INTERACTION OF HIGH-POWER TERAHERTZ RADIATION WITH METALLIC FILMS	Oral	Mikhail <b>Bezhko</b>	Dielectric and Magnetic Material Characterization Techniques up to 1,5 THz	Oral		
	Weiw ei <b>Liu</b>	Subwavelength resolution THz imaging by femtosecond laser filament	Invited	Andrey <b>Khudchenko</b>	Sideband Separating SIS receiver for 650 GHz developed by NOVA	Oral									
	Irina <b>Dolganova</b>	Impact of Scattering in Quasi-Ordered Structures on THz Imaging	Oral	Leonid <b>Kuzmin</b>	Efficient Electron Self-Cooling in Cold-Electron Bolometers	Oral									
	Andre w <b>Martusevich</b>	Comparative study of dielectric properties of the skin of human and laboratory animals	Oral	Alexander <b>Mamrashev</b>	Terahertz time-domain spectrometer with precision delay line encoder	Oral									
16:00-16:30	<b>CLOSING SESSION (Hall A)</b>														