June, 29

9:30 – 10:30	**Registration**
	HALL A
10:30 – 11:00	**Opening Session. Chair: Alexander Litvak**
	PLENARY SESSION. Chair: Olga Kocharovskaya
11:00 – 11:30	*Yakir Aharonov* (Tel-Aviv University, Israel). "Weak Measurements and Weak Values of Quantum Systems"
11:30 – 12:00	*Mark G. Raizen* (University of Texas at Austin, USA). "Many-body quantum control of a degenerate Bose gas"
12:00 – 12:30	*Alexander Sergeev* (Institute of Applied Physics RAS, Russia). "Control of attosecond pulse production from excited molecules"
12:30 – 13:30	**Lunch**

	HALL A	
	PLENARY SESSION. Chair: Alexander Sergeev	
13:30 – 14:00	*J. Beugnon, M.P.A. Jones, J. Dingjan, B. Darquie, G. Messin, A. Browaeys & Philippe Grangier* (Institute d'Optique, France). "Single photons for quantum information"	
14:00 – 14:30	*Alexander Apolonski, E. Fill, L.Veisz, A. Fernandez, Ch. Gohle, J. Rauschenberger, S. Naumov, V. Pervak, Th. Udem, Th.W. Haensch, F. Krausz* (Ludwig-Maximilians-Universitaet Muenchen, Garching, Germany). "Progress in generation of few-fs to sub-fs light and electron pulses at MHz repetition rate"	
14:30 – 15:00	*Francesco De Martini* (University of Rome "La Sapienza", Italy). "High Gain Quantum Injected Parametric Amplification, Non local amplified EPR and Phase-Covariant Cloning"	
15:00 – 15:30	**Coffee Break**	
15:30 – 16:50	**INVITED TOPICAL SESSIONS**	
	HALL A	***HALL B***
	Mini-Symposium on Attosecond Physics 1 **Chairs: Mikhail Ryabikin, Alexei Sokolov**	**Coherent and Nonlinear Optics 1** **Chair: Yevgeny Radeonychev**
15:30 – 15:50	*Alexei V. Sokolov, Andrea Burzo, Jiahui Peng, Dmitry Pestov, Xi Wang, and Miaochan Zhi* (Texas A&M University, USA). "Broadband coherent light generation in Raman-active gasses and solids, with potential for subfemtosecond pulse synthesis"	*Sharly Fleischer, Ilya Averbukh, and Yehiam Prior (*Weizmann Institute, Israel). "Isotope-selective molecular alignment"
15:50 – 16:10	*Masayuki Katsuragawa* (University of Electro-Communications, Tokyo, Japan). "Ultrashort pulse generation by Fourier synthesis of Raman sidebands; Toward attosecond regime"	*Vitaly V. Samartsev, V.S. Lobkov, K.M. Salikhov, G.M. Safiullin, and V.A. Zuikov* (Zavoisky Kazan Physical-Technical Institute of RAS, Kazan, Russia). "Femtosecond stimulated photon echo in the dye-doped polymer film and a possibility of the coherent optical cooling via phonon side-band"
16:10 – 16:30	*Matthias Wollenhaupt, T. Bayer, A. Präkelt, C. Sarpe-Tudoran and T. Baumert* (Universitat Kassel Fachbereich Physik / Expe-rimentalphysik III, Kassel, Germany). "Efficient strong field coherent control with	*Rustem N. Shakhmuratov and J. Odeurs* (Kazan Physical Technical Institute, Russian Academy of Science, Russia). "Where is the energy of slow light stored?"

	shaped femtosecond laser pulses: ultrafast, selective and tunable"	
16:30 – 16:50	*Gennady M. Fraiman* (Institute of Applied Physics RAS, Russia). "Coherent Collision Effects in Ultra High Illyuminated Plasmas"	*Maria Erukhimova, M.Tokman* (Institute of Applied Physics RAS, Russia). "Classical analogs of LWI and Manley – Rowe relations"
17:00 – 20:00	**Cultural Program:** **Excursion to Kremlin** **and/or International A. Sakharov Festival of Art**	

June, 30

8:00 – 9:00	**Registration**	
	HALL A	
	PLENARY SESSION. Chair: Mark G. Raizen	
9:00 – 9:30	*Jakob Yngvason* (University of Vienna, Austria). "BEC in Trapped Gases and Optical Lattices – a Review of Rigorous Results"	
9:30 – 10:00	*Jacob Sherson, Hanna Krauter, Rasmus K. Olsson, Brian Julsgaard, Klemens Hammerer, Ignacio Cirac, and Eugene S. Polzik* (Niels Bohr Instiutute and Copenhagen University, DK). "Quantum teleportation between two mesoscopic objects: a photonic pulse and an atomic ensemble"	
10:00 – 10:30	*Mikhail Fedorov* (General Physics Institute, Russian Academy of Science, Russia). "Entanglement in continuous spectra and wave packet structures"	
10:30 – 10:50	**Coffee Break**	
10:50 – 12:30	**INVITED TOPICAL SESSIONS**	
	HALL A	***HALL B***
	Mini-Symposium on Attosecond Physics 2 **Chairs: Mikhail Ryabikin, Alexei Sokolov**	**Semiconductor Optics 1** **Chair: Alexey Belyanin**
10:50 – 11:10	*Wilhelm Becker, X. Liu, C. Figueira de Morisson Faria, and P.B. Corkum* (Max Born Institute, Berlin). "Attosecond electron thermalization by laser-driven electron recollision in atoms"	*V.Ya. Aleshkin, A.A. Belyanin, A.A. Dubinov, V.V. Kocharovsky, Vladimir V. Kocharovsky, M.O. Scully* (Institute of Applied Physics RAS, Russia). "Intracavity nonlinear mixing in dual-wavelength laser diodes for mid/far-infrared generation"
11:10 – 11:30	*Andre D. Bandrauk, S. Barmaki, G. Lagmago Kamta* (Universite de Sherbrooke, Quebec, Canada). "Molecular Harmonic Generation at Large Internuclear Distances"	*Ilya S. Tarasov, N.A. Pikhtin, S.O. Slipchenko, D.A. Vinokurov, Z.N. Sokolova* (A.F. Ioffe Physico-Technical Institute RAS, St.-Petersburg, Russia). "High efficiency high power semiconductor lasers (800 – 1100 nm) based on separate confinement heterostructures with low internal optical loss"
11:30 – 11:50	*M.Yu. Emelin, Mikhail Yu. Ryabikin, and A.M. Sergeev* (Institute of Applied Physics RAS, Nizhny Novgorod, Russia). "Using transient enhancement of high harmonic generation in expanding molecules for monitoring nuclear vibration"	*Vladimir Ya. Aleshkin, A.V. Antonov, L.V. Gavrilenko, V.I. Gavrilenko* (Institute for Physics of Microstructures, Nizhny Novgorod, Russia). "Fano resonances in impurity photocurrent spectra of bulk semiconductors and quantum wells doped by shallow donors"
11:50 – 12:10	*Zhiyi Wei, Yanying Zhao, Hainian Han, Peng Wang, Jiangeng Zhu* (Institute of Physics, Chinese Academy of Sciences, China). "Carrier-envelope phase control of few cycles laser pulse by difference-frequency generation"	*Andrey V. Muravjov, M.V. Dolguikh, R.E. Peale* (University of Central Florida, Orlando, USA). "Amplification of terahertz radiation in p-type delta-doped semiconductor films"
		A.A. Andronov, Yu.N. Nozdrin, Alexander

12:10 – 12:30	*Vladimir B. Gildenburg and N.V. Vvedenskii* (Institute of Applied Physics RAS, Russia). "Generation of Terahertz Radiation via ultrashort-pulse-induced gas breakdown"	*Okomel'kov, A.A. Babenko, D.G. Ikusov, R.N. Smirnov and V.S. Varavin* (Institute for Physics of Microstructures, RAS, Nizhniy Novgorod, Russia). "Superluminescence from optically pumped $Cd_xHg_{1-x}Te$ heterostructures on GaAs and Si substrates"
12:30 – 13:30	**Lunch**	

13:30 – 14:50	**INVITED TOPICAL SESSIONS**	
	HALL A	***HALL B***
	Coherent and Nonlinear Optics 2 **Chair: Rustem Shakhmuratov**	**Semiconductor Optics 2** **Chair: Vladimir Kocharovsky**
13:30 – 13:50	*Andrew M. C. Dawes, Lucas Illing, Susan M. Clark, and Daniel J. Gauthier (Duke University, USA).* "Recent progress in low-light switching via optical patterns"	*Alexander A. Andronov, E.P. Dodin, Yu.N. Nozdrin, D.I. Zinchenko* (Institute for Physics of Microstructures, RAS, Nizhniy Novgorod, Russia). "Transport properties of narrow minigap superlattices and the design of THz Bloch oscillator"
13:50 – 14:10	*Andrei I. Maimistov, Ildar R. Gabitov, Elena V. Kazantseva* (Moscow Engineering Physics Institute, Moscow, Russia). "Three wave interaction in negative refractive index materials with quadratic nonlinearity"	*Alexei Belyanin* (Texas A&M University, USA). "Nonlinear dynamics of quantum cascade lasers: Raman effect, nonlinear frequency conversion, and ultrashort pulse generation"
14:10 – 14:30	*Mikhail Tokman, M. Erukhimova, A. Kryachko, Y. Radeonychev, D. Sazanov* (Institute of Applied Physics RAS, Nizhny Novgorod, Russia). "The analogs of quantum coherent effects in classical media and systems with collective degrees of freedom"	*Valery N. Shastin, R.Kh. Zhukavin, J.N. Hovenier, T.O. Klaassen, S.G. Pavlov, H.-W. Hübers* (Institute for Physics of Microstructures RAS, Nizhny Novgorod, Russia). "Terahertz raman laser on shallow donors in silicon"
14:30 – 14:50	*Peter A. Volkov, M.A. Efremov, and M.V. Fedorov* (A.M. Prokhorov General Physics Institute RAS, Moscow, Russia). "Modulation of atomic Rydberg states by a resonant microwave field"	*Vasily V. Bel'kov, S.D. Ganichev* (A.F. Ioffe Physical-Technical Institute, St. Petersburg, Russia). "Terahertz Radiation Induced Spin Photocurrents in Quantum Wells"
14:50 – 15:20	**Alexander Litvak,** *Institute of Applied Physics RAS, Russia* **Institute of Applied Physics RAS: Major Directions of Research**	
15:20 – 16.50	**Lab tour at the Institute of Applied Physics RAS**	
16:50 – 17:10	**Coffee Break**	
17:10 – 20:00	**Cultural Program: Bus Excursion in Nizhny Novgorod and/or International A. Sakharov Festival of Art**	
21:00	**Boarding**	

July, 1

8:00 – 9:00	**Registration**		
9:00 – 10:00	**Breakfast**		
10:00 – 10:30	**Boat departure from Nizhny Novgorod**		
	HALL A		
	PLENARY SESSION. Chair: Marlan O. Scully		
10:30 – 11:00	*Alexander L. Fetter* (Stanford University, USA). "Rapidly rotating BEC"		
11:00 – 11:30	*John M. Doyle* (MIT, USA). "Cold Molecules for Quantum Information"		
11:40 – 13:00	**INVITED TOPICAL SESSIONS**		
	HALL A	***HALL B***	***HALL C***

	BEC **Chair: Vitaly Kocharovsky**	**Quantum Information 1** **Chair: Philip Hemmer**	**8th AFOSR Workshop on Quantum Nucleonics and Isomers 1** **Chairs: James J. Carroll and Anne Matsuura**
11:40 – 12:00	*Rainhold Walser* (Abteilung Quantenphysik, University of Ulm, Germany). "Exploring the correspondence principle with spinor condensates: from quantum Bloch oscillations to classical Bogoliubov excitations"	*M. Suhail Zubairy* (Texas A&M University, USA). "Qunatum lithograthy and microscopy"	*Forrest J. Agee, Anne Matsuura* (Air Force Office of Scientific Research, USA). "Review of Challenges and Opportunities in Quantum Nucleonics"
12:00 – 12:20	*Yuri Lozovik* (Institute of Spectroscopy, Troitsk, Russia). "Bose condensation and superfluid phases in low-dimensional systems"	*Philippe Tamarat, Charles M. Santori, Philip R. Hemmer, Fedor Jelezko, and Jörg Wrachtrup* (Physikalisches Institut, Universität Stuttgart, Germany). "Raman excited spin coherence in single defect centers in diamond"	*Lev Rivlin* (MIREA Technical University, Moscow, Russia). "On stimulated radiative decay of metastable states"
12:20 – 12:40	*Anatoly A. Svidzinsky and Marlan O. Scully* (Texas A&M University, USA). "Hybrid approach to fluctuations in mesoscopic interacting Bose – Einstein condensate"	*Zameer Hasan* (Temple University – Philadelphia, USA). "Arrays of rare earth doped quantum dots as hardware for quantum computers"	*Thomas J. Buervenich, Joerg Evers, and Christoph H. Keitel* (Max Planck Institute, Germany). "Direct interaction of nuclei with x-ray laser pulses"
12:40 – 13:00	*Eugeny D. Trifonov, Yu.A. Avetisyan* (A.I. Herzen State University of Russia, St.-Petersburg). "On the theory of superradiant scattering from bose-einstein condensate of dilute gas"	*Susanne F. Yelin, R. Cote* (University Connecticut, USA). "Quantum computing using dipolar molecules"	*Rustem N. Shakhmuratov, J. Odeurs, S. Gheysen, Y. Rostovtsev, O Kocharovskaya, P. Mandel* (Kazan Physical Technical Institute, Russian Academy of Science, Russia). "Level mixing induced transparency for gamma radiation"
13:00 – 14:00	**Lunch**		

	HALL A
	PLENARY SESSION. Chair: Andre Mysirowitz
14:00 – 14:30	*Vitaly Kocharovsky and Vladimir Kocharovsky* (Institute of Applied Physics RAS, Russia). "Theorem on non-polynomial averages in statistical physics and nonequilibrium BEC"
14:30 – 15:00	*Leonid Butov* (UC at San Diego, USA). "Phenomena in cold exciton gases"
15:15 – 17:00	**Excursion to Makarievsky Monastery**
17:00 – 17:20	**Coffee Break**
	HALL A
	PLENARY SESSION. Chair: Yury Kagan
17:20 – 17:50	*Xiaoshi Zhang, Amy Lytle, Oren Cohen, Ariel Paul, Henry Kapteyn, and Margaret Murnane* (Department of Physics and JILA, University of Colorado and NIST, Boulder, CO, USA). "Quasi-phase matching of high-order harmonic generation"
17:50 – 18:20	*Mikhail Lukin* (Harvard University, USA). "Quantum control of single photon and single spins"

18:30 – 20:10	**INVITED TOPICAL SESSIONS**		
	HALL A	***HALL B***	***HALL C***
	Excitons **Chair: Leonid Butov**	**Quantum Information 2** **Chair: Mikhail Lukin**	**8th AFOSR Workshop on Quantum Nucleonics and Isomers 2**

			Chairs: James J. Carroll and Anne Matsuura
18:30 – 18:50	*Steven T. Cundiff* (National Institute of Standards & Technology, Boulder, USA). "Quantum control of carriers in semiconductors for carrier-envelope phase detection"	*Philip Hemmer, Steven Prawer, Jerog Wrachtrup, Fedor Jelezko, Neil Manson, and Matthew Sellars* (Texas A&M University, College Station, Texas, USA). "Solid state quantum computing"	*Nino R. Pereira, G. Merkel, and M. Litz* (Ecopu lse, Inc., Springfield, USA). "On energy storage and power production with isomers"
18:50 – 19:10	*Alexei Ivanov* (Gardiff University, Great Britain). "Acoustically induced superlattices: from photons and electrons to excitons and polaritons"	*Ilya Fushman, Jelena Vuckovic* (Stanford University, USA). "Photonic Crystals for Quantum and Classical Information Processing"	*Vitaly V. Samartsev and A.A. Kalachev* (Kazan Phys.-Tech. Institute, Russian Academy of Science, Russia). "Multiple cluster superfluorescence of nuclear molecules"
19:10 – 19:30	*Hailin Wang* (University of Oregon, USA). "Control of nonlinear optical response from electron spin coherence in quantum wells"	*Daniel Rohrlich, Yakov Neiman, Yonathan Japha, Ron Folman* (Ben-Gurion University, Beer-Sheva, Israel). "Chips for quantum optics and interference swapping in scattering from a nonlocal quantum target"	*Zameer Hasan, A. Konjhodzic, F. Vagizov, E. Alp, W. Sturhahn, and J. Carroll.* "Nuclear Forward Scattering (NFS) of Atomically Tailored Materials for Coherent Control of Nuclear States"
19:30 – 19:50	*Makoto Kuwata-Gonokami* (University of Tokyo, Japan). "Optical manipulation of cold excitons in a quantum degenerate regime"	*Pierre Pillet* (Laboratoire Aimé Cotton, CNRS, Orsay cedex, France). "Dipole blockade in high-resolution laser excitation of Rydberg atoms"	*Petr Anisimov, Yu. Rostovtsev, O. Kocharovskaya* (Texas A&M University, USA). "A new technique for Line Narrowing in Mossbauer Spectroscopy"
19:50 – 20:10	*Mats-Eric Pistol, J. Persson, C. Ellström, V. Zwiller, L. Samuelson, W. Seifert* (Lund University, Lund, Sweden). "Correlation spectroscopy of individual quantum dots"	*O.S. Mishina, Dmitriy V. Kupriyanov, J.H. Muller, E.S. Polzik* (State Polytechnic University, St.-Petersburg, Russia). "Quantum memory for light via alignment-type inter-action with a spin-one system"	*Edgar K. Sadykov, V.V. Arinin, F.G. Vagizov (*Kazan State University, Kazan, Russia). "Controllable quantum interference on moessbauer transitions: rf "valve" effect, etc."
20:10 – 21:10	**Dinner**		
21:30 – 22:30	**Concert of classical music**		

July, 2

8:00 – 9:00	**Breakfast and arrival in Kazan**
	HALL A
	PLENARY SESSION. Chair: Alexander Litvak
9:00 – 9:30	*Roy Glauber* (Harvard University, USA). "One hundred years of light quanta"
9:30 – 10:00	*Marlan Scully* (Texas A&M University, USA). "A Simplified Bogoliubov Master Equation Analysis of Fluctuations in an Interacting Bose Gas"
10:15 – 13:45	**Excursion in Kazan**
13:45 – 14:45	**Lunch**
	HALL A
	PLENARY SESSION. Chair: Forrest J. Agee
14:45 – 15:15	*R. Kolesov, E. Kuznetsova, S. Olariu, F. Vagizov, Olga Kocharovskaya* (Texas A&M University, USA). "Coherent control of the atomic and nuclear transitions in solids"
15:15 – 15:45	*Andrey B. Savel'ev, A.V. Andreev, V. Bolshakov, G. Golovin, V.M. Gordienko, I. Lachko,*

15:45 – 16:15	*P.M. Mikheev, R.V. Volokov* (Moscow State Uinversity, Russia). "Recent results in low energy nuclear excitation using superstrong laser fields" *James Carroll* (Youngstown State University, USA). " Induced energy release from nuclear isomers and the role of nuclear structure "
16:15 – 16:30	**Coffee Break, Departure from Kazan**

16:30 – 17:50	**INVITED TOPICAL SESSIONS**		
	HALL A	***HALL B***	***HALL C***
	Coherent and Nonlinear Optics 3 **Chair: Ilya Averbukh**	**Quantum Information 3** **Chair: M. Suhail Zubairy**	**8th AFOSR Workshop on Quantum Nucleonics and Isomers 3** **Chairs: James J. Carroll and Anne Matsuura**
16:30 – 16:50	*Petra Sauer and Roland E. Allen* (Texas A&M University, USA). Response of Dipicolinic Acid to Ultrafast Laser Pulses	*Robert J.C. Spreeuw and Tom W. Hijmans* (Van der Waals-Zeeman Institute, University of Amsterdam, The Netherlands). "Quantum search using local relaxation; simulation with polynomial resources"	*Anatoli Andreev* (Moscow State University, Russia). "Laser applications in nuclear physics research"
16:50 – 17:10	*Dmitry Zhdanov, B.A. Grishanin, V.N. Zadkov* (M.V. Lomonosov Moscow State University, Russia). "Orientation Selection of Molecules with the Help of Joint Action of Laser and Electrostatic Fields"	*N.S. Sisakyan and Yuri P. Malakyan* (Institute for Physical Research of National Academy of Sciences of Armenia, Armenia). "Controllable remote entanglement of single-photon states in multiple time-bins"	*Farit Vagizov, Roman Kolesov, Silviu Olariu, Olga Kocharovskaya,* (Texas A&M University, USA). "Experimental search for laser induced effects in Mössbauer spectra of ^{151}Eu and ^{57}Fe doped crystals"
17:10 – 17:30	*Kyungsun Na and Linda E. Reichl* (University of Texas at Austin, USA). "The Dynamics of STIRAP Based Quantum Control"	*Heidi Fearn* (California State University Fullerton, USA). "Faster-Than-Light Signals in Vacuua"	*Sarkis A. Karamian, James J. Carroll* (Joint Institute for Nuclear Research, Dubna, Russia). "Prospects for Coulomb-Excitation-Driven Nuclear Radiation"
17:30 – 17:50	*Natalya N. Rubtsova* (Institute of Semiconductor Physics, Siberian Branch RAS, Russia). "Coherent control of optical transients in molecules, atoms, nanostructures: results and perspectives"	*N. Andrianov, D. Ivanov, Tania Golubeva* (V.A. Fock Physics Institute, St.-Petersburg State University, St. Petersburg, Russia). "Quantum dense coding with phase locked sub-Poissonian laser"	*Feodor F. Karpeshin, M.B. Trzhaskovskaya* (University of St.-Petersburg, Russia). "Application of resonance conversion for triggering isomer energy"

18:00 – 22:30	**Green Stop in Kozlovka**
18:00 – 19:30	**POSTER SESSION**
	Ivan Agafonov, Timur Iskhakov, Maria Chekhova (M.V. Lomonosov Moscow State University, Moscow, Russia). "Photo detector dead time consideration in study of the intensity correlation functions in pulsed regime"
	Elena Kuznetsova, Yuri Rostovtsev, Nikolai G. Kalugin, Roman Kolesov, Olga Kocharovskaya, Marlan O. Scully (Texas A&M University, USA). "Generation of coherent terahertz pulses in optical crystals at room temperature"
	Koryun B. Oganesyan, K.G. Petrosyan, A.E. Allahverdyan (Yerevan Physics Institute, Yerevan, Armenia). "Laser cooling of electrons and X-ray generation:A relativistic quantum heat engine"
	E.K. Sadykov, Alexandr A. Yurichuk (Kazan State University, Kazan, Russia). "The resonant scattering of Moessbauer radiation in levels "anticrossing" conditions"
	Sarkis A. Karamian, J.J. Carroll, S. Iliev, S.P. Tretyakova (Joint Institute for Nuclear Research, Dubna, Russia). "To a possibility of the ^{178m2}Hf isomer alpha-decay"
	V.Yu. Lyubimov, Evgenii A. Popov (Kazan State Power Engineering University, Kazan, Russia). "The quantum interference effects of gamma-radiation under crossing of nuclear levels in radiofrequency field"

	S.P. Kulik, S.S. Straupe, M.V. Fedorov, M.A. Efremov, Ekaterina Moreva (Moscow Engineering Physics Institute Moscow, Russia). "Entanglement degree of biphotons"
	Igor V. Koryukin, V.A. Povyshev (Institute of Applied Physics RAS, Russia). "Antiphase Dynamics of Multimode Semiconductor Laser"
	G. Alzetta, S. Gozzini, A. Lucchesini, S. Cartaleva, Todor Karaulanov, C. Marinelli and L. Moi (Institute of Electronics, BAS, Sofia, Bulgaria). "Electromagnetically Induced Transparency Resonances in Potassium"
	Anton Biryukov, S.M. Nekorkin, B.N. Zvonkov, V.Ya. Aleshkin, A.A. Dubinov, V.I. Gavrilenko, K.V. Marem'yanin, S.V. Morozov, A.A. Belyanin, V.V. Kocharovsky, Vl.V. Kocharovsky (Research Physical-Technical Institute of the Nizhny Novgorod State University, Nizhny Novgorod, Russia). "Experimental study of nonlinear mode mixing in dual- wavelength semiconductor lasers" *Elena V. Kazantseva, Andrei I. Maimistov, Sergei O. Elyutin, Stefan Wabnitz* (Moscow Engineering Physics Institute, Moscow, Russia). "Amplification of the short optical pulsein a non-linear birefringent medium"
	Vladimir I. Vysotskii, Stanislav V. Adamenko (Electrodynamics Laboratory "Proton-21", Kiev, Ukraine). "Processes of neutronization and protonization of nuclei at a shock compressionof a target and the mechanism of ultrahigh energy particles induced creation"
	A.A. Belyanin, V.V. Kocharovsky, Vl.V. Kocharovsky, Vladimir Kukushkin, V.Ya. Aleshkin, and A.A. Dubinov (Institute of Applied Physics RAS, Russia). "Mode-locking regimes of difference-frequency generation in nonlinear mixing heterolasers"
	Arkady Gonoskov, I.A. Gonoskov, M.Yu. Ryabikin, and G.M. Fraiman (Institute of Applied Physics RAS, Russia). "Electron-ion collisions at scattering and ionisation in strong laser field: quantum 3D numerical simulations"
	Ivan Gonoskov, M.Yu. Ryabikin, and A.M. Sergeev (Institute of Applied Physics RAS, Russia). "Harmonic generation and electron difraction in light molecules ionized by few-cycle laser pulse"
	Vera B. Zon (Voronezh State University University, Voronezh, Russia). "Surface Plasmon Refraction, Reflection and Radiation at a Right-Angled Boundary"
	Ekaterina E. Orlova, J.N. Hovenier, T.O. Klaassen, I. Kasalynas, A.J.L. Adam, J.R. Gao, T.M. Klapwijk, B.S. Williams, S. Kumar, Q. Hu, J.L. Reno (Institute for Physics of Microstructures RAS). "Directivity of sub-wavelength wire lasers"
	Vyacheslav A. Mironov (Institute of Applied Physics RAS, Russia). "Structure Features of Laser Radiation Self-action in Electromagnetic Induced Transparency Regimes"
	Konstantin Dorfman, N.S. Ginzburg, A.M. Malkin, R.M. Rozental, V.Yu. Zaslavsky (Institute of Applied Physics RAS, Russia). "Mode selection and amplification in open waveguides with planar Bragg structures"
	V.A. Zheltonozhsky, N.V. Strilchuk, Pavel N. Trifonov (Institute for Nuclear Research, Kiev, Ukraine). "ICC measuring at M4-isomers decay"
	Pavel Khandokhin (Institute of Applied Physics RAS, Russia). "Relaxation oscillations frequencies of the bipolarized vertical cavity surface emitting semiconductor lasers"
	E.V. Moreva, Stanislav S. Straupe, and S.P. Kulik (M.V. Lomonosov Moscow State University, Russia). "Polarization ququarts"
19:30 – 22:30	**Reception**

July, 3

8:00 – 9:00	**Breakfast**		
	HALL A		
	PLENARY SESSION. Chair: Philippe Grangier		
9:00 – 9:30	*Maxim Sukharev and Tamar Seideman* (Northwestern University, Evanston, USA). "A Coherent Control Approach to Manipulating Light in the Nanoscale"		
9:30 – 10:00	*Viktor L. Balykin, Fam Le Kien, and K. Hakuta* (Institute of Spectroscopy RAS, Russia) "Coherent manipulation of atoms using evanescent field around optical nanofiber"		
10:00 – 10:30	*Gershon Kurizki, Coren Gordon, Abraham Kofman* (The Weizmann Institute of Science, Rehovot, Israel). "Can we protect quantum information from decoherence?"		
10:30 – 11:30	**INVITED TOPICAL SESSIONS**		
	HALL A	***HALL B***	***HALL C***
	Mini-Symposium on Attosecond Physics 4	**EIT 2** **Chair: Yuri Malakyan**	**8th AFOSR Workshop on Quantum Nucleonics and Isomers 4**

	Chairs: Mikhail Ryabikin, Alexei Sokolov		**Chairs: James J. Carroll and Anne Matsuura**
10:30 – 10:50	*Manfred Kleber, T. Kramer and P. Raab* (Technische Universitat, Munchen). "Path integral approach to electron motion in external fields"	*Roman Kolesov and Olga Kocharovskaya* (Texas A&M University, USA). "Optical effects of Zeeman coherence in room-temperature solids"	*Adam Hayes and Douglas Cline* (University of Rochester, USA). "Coulomb Excitation of the $K^{\pi} = 5^{-}$ ^{242m}Am Isomer ($t_{1/2}$ = 141 y)"
10:50 – 11:10	*Martin Schultze, M. Uiberacker, Th. Uphues, A.-J. Verhoeff, H. Schrder, M. Drescher, U. Kleineberg, U. Heinzmann and F. Krausz (*Max-Planck-Institut fuer Quantenoptik, Garching, Germany). "Attosecond Time Resolved Ionisation Spectroscopy: Sampling of Inner-Shell Processes in Xenon"	*Vasily Arkhipkin (*Institute of Physics SB RAS, Krasnoyarsk, Russia). "Coherent Controlling of Light with Light using electromagnetically induced transparency"	*M.S. Litz, M. Helba, Hilary Roberts, N. Guardala, G. Merkel, N. Pereira, and J.J. Carroll* (SRS Technologies, Huntsville, USA). "Study of ^{166m}Ho nuclear isomer using a Continuous Source"
11:10 – 11:30	*Alexander Popov, O.V. Tikhonova, E.A. Volkova (*Moscow State University, Russia). "Ab initio modeling of atomic ionization by few-cycle laser pulses and generation of XUV radiation of attosecond duration"	*R. Akhmedzhanov, Lev Gushchin, E. Kuznetsova, A. Litvak, V. Yazenkov, N. Zharova* (Institute of Applied Physics RAS, Russia). "Investigation of electromagnetically induced transparency in Pr^{3+}:LaF_3"	*Silviu Olariu, F. Vagizov, R. Kolesov, E. Alp, O. Kocharovskaya* (National Institute of Physics, Bucharest, Romania). "Nuclear Resonance Scattering of Synchrotron Radiation by Optically Excited States of ^{151}Eu, ^{161}Dy"
11:30 – 11:50	**Coffee Break**		

11:50 – 13:10	**INVITED TOPICAL SESSIONS**		
	HALL A	***HALL B***	***HALL C***
	Coherent and Nonlinear Optics 4 Chair: Andrei I. Maimistov	**Mini-Symposium on Attosecond Physics 2 Chairs: Mikhail Ryabikin, Alexei Sokolov**	**8th AFOSR Workshop on Quantum Nucleonics and Isomers 5 Chairs: James J. Carroll and Anne Matsuura**
11:50 – 12:10	*Edward S. Fry, C.H. Raymond Ooi, Marlan O. Scully* (Texas A&M University, USA). "Directed Spontaneous Emission from an Extended Ensemble of N Atoms"	*Andre Mysyrowicz, C. d'Amico, A. Houard, B. Prade, M. Franco* (Ecole Politechnique, France). "Femtosecond laser filamentation in air"	*Vladimir Vysotskii* (Kiev National Shevchenko University, Kiev, Ukraine). "Controlled conversion decay and controlled beta-decay in quantum nucleonics"
12:10 – 12:30	*Boris Zon* (Voronezh State University University, Voronezh, Russia). "Peculairities in Ultrasoft X-Ray Spectra on Electron-Atom Scattering"	*George Heck, Joseph Sloss, Robert J. Levis (*Temple University, USA) "Adaptive Control of the Spatial Position of White Light Filaments in an Aqueous Solution"	*Anatoly Zadernovsky* (MIREA Technical University, Moscow, Russia). "Stimulated gamma emission in an active medium with hidden inversion"
12:30 – 12:50	*Yevgeny Radeonychev, M.D. Tokman, A.G. Litvak, and Olga Kocharovskaya* (Institute of Applied Physics RAS, Russia). "Induced optical transparency via frequency modulation of two-level atomic system"	*Vasily V. Strelkov, I.J. Sola, L. Elouga, E. Mvel, E. Constant, L. Poletto, P. Villoresi, E. Benedetti, J.-P. Caumes, S. Stagira, C. Vozzi, G. Sansone, M. Nisoli* (General Physics Institute, Russian Academy of Science, Russia). "Control of attosecond pulse emission via ellipticity gating"	*Vladimir I. Kirischuk, N. V. Strilchuk and V. A. Zheltonozhsky (*Institute for Nuclear Research, National Academy of Sciences, Kiev, Ukraine). "New perspectives for experimental investigation of 178m2hf isomer triggering by low-energy photons"
12:50 – 13:10	*Shi-Yao Zhu (*Hongkong Baptist University, Hong Kong)	*Alexey A. Balakin* (Institute of Applied Physics RAS, Russia). "Ultra Hot Electron Production in Relativistic Intensity Laser Plasmas"	*Igor Izosimov.* "Triggering of nuclear isomers via decay of autoionization states in electron shells (NEET)"
13:10 – 14:10	**Lunch**		
	HALL A		
	PLENARY SESSION. Chair: Wilhelm Becker		
14:10 – 14:40	*Nick Wagner, Andrea Wuest, Margaret Murnane, Henry Kapteyn* (Department of Physics and JILA, University of Colorado and NIST, Boulder, CO, USA).		

	"Observing molecular dynamics through the high-order harmonic generation process"		
14:40 – 15:10	*Sveneric Johansson and Vladilen Letokhov* (Institute of Spectroscopy, Russian Academy of Science, Russia). "Astrophysical Lasers and Nonlinear Optical Effects in Space"		
15:10 – 16:10	**INVITED TOPICAL SESSIONS**		
	HALL A	***HALL B***	***HALL C***
	Quantum control **Chair: Gershon Kurizki**	**EIT 2** **Chair: Edward S. Fry**	**8th AFOSR Workshop on Quantum Nucleonics and Isomers 6** **Chairs: James J. Carroll and Anne Matsuura**
15:10 – 15:30	*Vladimir Akulin* (Laboratory Aime – Cotton, CNRS, Orsay, France). "Quantum Entanglement Characterization with Nilpotent Polynomials"	*Elena Kuznetsova, Roman Kolesov, Olga Kocharovskaya* (Texas A&M University, USA). "Coherent population trapping via a continuum with a train of pulses"	*Joseph W. Schumer, F.C. Young, R.J. Allen, B.V. Weber, and J. Davis* (Naval Research Laboratory, Washington, USA). "Study of nuclear isomers using pulsed power drivers"
15:30 – 15:50	*Martin Kiffner, J. Evers, and C. H. Keitel* (Max Planck Institute, Germany). "Quantum interference enforced by time-energy complementarity"	*Todor Karaulanov, S. Cartaleva, D. Slavov, N. Petrov* (Institute of Electronics, BAS, Sofia, Bulgaria). "Electromagnetically induced transparency phenomenon under AC magnetic field influence"	*Victor A. Zheltonozhsky, V.I. Kirischuk, N.V. Strilchuk* (Institute for Nuclear Research, Kiev, Ukraine). "Nuclear isomers excitation an photonless annihilation"
15:50 – 16:10	*Yuri M. Golubev (*V.A. Fock Physics Institute, St.-Petersburg State University, Russia). "Coherent control by the photon statistics in three-level lasing: induced photon statistics"	*V.M. Datsyuk, D.V. Kuprianov, Igor M. Sokolov, M.D. Havey* (State Polytechnic University, St. Petersburg, Russia). "Light scattering under conditions of electromagnetically induced transparency"	*Alexey Ya. Dzyublik, V. Meot, G.Gosselin* (Institute for Nuclear Research, Kiev, Ukraine). "Decay of nuclear isomers in the laser field"
16:10 – 16:40	**CLOSING OF THE CONFERENCE**		
16:40 – 17:00	**Coffee Break and boat arrival in Nizhny Novgorod**		
17:30 – 19:00	**Excursion in Nizhny Novgorod**		
19:00 – 20:00	**Dinner**		