

Topical Sections of the Conference

- TS 1:** Nonlinear Dynamics and General Problems of Nonlinear Waves
- TS 2:** High-Field Optics and Nonlinear Processes in Plasmas
- TS 3:** Nonlinear Processes in Fluid Dynamics and Acoustics
- TS 4:** Nonlinear Problems in Astrophysics and Cosmology
- TS 5:** Nonlinear Optics and Coherent Phenomena in Quantum Systems
- TS 6:** Optoelectronics and THz physics
- TS 7:** Physics of Cold Gases

Tuesday, July 3

8:00 – 10:30	REGISTRATION		
9:00	Departure from Nizhny Novgorod		
9:30 – 10:30	BREAKFAST		
10:30 – 11:00	OPENING SESSION		
	PLENARY SESSION 1		
11:00 – 11:30	<i>Lev Pitaevskii</i> (Univ. Trento, Italy). Soliton Motion in a Trapped Bose-Einstein Condensate		
11:30 – 11:50	COFFEE BREAK		
11:50 – 12:20	<i>Nathaniel Fisch</i> (Princeton Univ., USA) Wave Manipulation of Plasma in Open Magnetic Systems		
12:20 – 12:50	<i>Mikhail Lukin</i> (Harvard University, USA). Quantum Plasmonics: From Strong Coupling To Single Photon Transistors		
12:50 – 13:20	<i>Igor Novikov</i> (Lebedev Physical Institute, RAS, Russia) Nonlinear Processes in Black Hole Physics		
13:30 – 14:30	LUNCH		
	TOPICAL SECTIONS 2, 5, 1		
	TS 2: High-Field Optics and Nonlinear Processes in Plasmas	TS 5: Nonlinear Optics and Coherent Phenomena in Quantum Systems	TS 1: Nonlinear Dynamics and General Problems of Nonlinear Waves
15:00 – 16:40	<p>2-1. <i>W. Daughton</i> (Univ. of Iowa, USA). Dynamical evolution of collisionless reconnection in large open systems (<i>invited</i>, 30 min)</p> <p>2-2. <i>A. Bhattacharjee</i> (Univ. of New Hampshire, USA). Current and vortex singularities: Drivers of impulsive reconnection in plasmas and fluids (<i>invited</i>, 30 min)</p> <p>2-3. <i>A. Das et al</i> (Inst. Plasma Res., India). Self organization and wave induced melting of quasi-crystalline patterns in turbulent plasma flows (20 min)</p> <p>2-4. <i>S.I. Popel et al</i> (Inst. Dyn. Geospheres, RAS, Russia). Nonlinear processes in complex plasmas (20 min)</p>	<p>5-1. <i>R. Allen</i> (Texas A&M University, USA). Comparison of vibrational and electronic properties of Dipicolinic acid with its parent ring molecule, Pyridine (<i>invited</i>, 30 min)</p> <p>5-2. <i>M. Ledbetter</i> (Univ. California in Berkley, USA). Advances and applications in atomic magnetometry (<i>invited</i>, 30 min)</p> <p>5-3. <i>Yang Guojian et al</i> (Beijing Normal Univ., China) A further study of light controlling of atomic motion via velocity-selective coherent population trapping (20 min)</p> <p>5-4. <i>I.V. Zelensky et al</i> (Inst. Appl. Phys., RAS, Russia). Using coherent population trapping in test atoms for magnetic field measurements in toroidal plasmas (20 min)</p>	<p>1-1. <i>V. Nekorkin</i> (Inst. Appl. Phys., RAS, Russia). Cluster formation in oscillatory neuronal networks (<i>invited</i>, 30 min)</p> <p>1-2. <i>J. Lowenstein</i> (New York University, USA). Pseudo-chaotic kicked oscillator maps (<i>invited</i>, 30 min)</p> <p>1-3. <i>D. Balandin et al</i> (Nizhny Novgorod State Univ., Russia). Robust stability of dynamic systems with parametrical disturbances (20 min)</p> <p>1-4. <i>N.M. Ryskin et al</i> (Saratov State Univ., Russia). Suppressing of self-modulation instability in time-delayed dynamical systems by using controlling chaos technique (20 min)</p>
16:40 – 17:00	COFFEE BREAK		

Tuesday, July 3 / evening

17:00 – 19:10	TOPICAL SECTIONS 2, 5, 4		
	<p>TS 2: High-Field Optics and Nonlinear Processes in Plasmas</p> <p>2-5. <i>R. Shah et al</i> (Ecole Polytechnique, France). X-ray generation in plasma from laser-accelerated electrons (<i>invited</i>, 30 min)</p> <p>2-6. <i>A.M. Sergeev et al</i> (Inst. Appl. Phys., RAS, Russia). Optimization of ion acceleration regimes at relativistically strong laser pulse interaction with overdense plasma layers (20 min)</p> <p>2-7. <i>M. Kurilova et al</i> (Moscow State Univ., Russia). Contrast effect at femtosecond laser-plasma interaction with liquid metals (20 min)</p> <p>2-8. <i>V.A. Mukhin et al</i> (Inst. Appl. Phys., RAS, Russia). Specificity of thermal lens in laser ceramics (20 min)</p> <p>2-9. <i>N.V. Vvedenskii et al</i> (Inst. Appl. Phys., RAS, Russia). Ionization-induced conversion of few-cycle laser pulses into terahertz radiation (20 min)</p>	<p>TS 5: Nonlinear Optics and Coherent Phenomena in Quantum Systems</p> <p>5-5. <i>M. Fedorov et al</i> (General Inst. Phys., RAS, Russia). Anomalous narrowing of the momentum photon coincidence distribution and very high entanglement of biphoton states in parametric down conversion (<i>invited</i>, 30 min)</p> <p>5-6. <i>T.Yu. Golubeva</i> (V.A. Fock Phys. Institute, St. Petersburg, Russia) Sub-poissonian lasers for quantum ghost imaging protocol (20 min)</p> <p>5-7. <i>S.V. Prants et al</i> (Pacific Oceanological Inst., RAS, Russia). Chaotic transport of atoms in a laser field (20 min)</p> <p>5-8. <i>M.B. Smirnov et al</i> (Kurchatov Inst., Russia). Effective field theory for light in disordered atomic medium (20 min)</p> <p>5-9. <i>A.J. Gelman et al</i> (Inst. Appl. Phys., RAS, Russia). Numerical simulation of quantum relaxation in atomic systems by Monte Carlo wave-function method (20 min)</p>	<p>TS 4: Nonlinear Problems in Astrophysics and Cosmology</p> <p>4-1. <i>S. Blinnikov</i> (Inst. Theor. Exp. Phys., RAS, Russia). Radiating shocks in supernovae: From early breakout to old remnants (<i>invited</i>, 30 min)</p> <p>4-2. <i>J. Marcaide et al</i> (Univ. Valencia, Spain) . Expansion of supernova 1993J: Movie and Rayleigh-Taylor fingers (<i>invited</i>, 30 min)</p> <p>4-3. <i>S. Garanin</i> (All-Russian Res. Inst. Exp. Phys.). Perpendicular Collisionless Shock Waves in Magnetized Plasmas (<i>invited</i>, 30 min)</p> <p>4-4. <i>E. Derishev</i> (Inst. Appl. Phys., RAS, Russia) Neutrino emission from shocks inside supernovae (20 min)</p> <p>4-5. <i>A. Shepelev</i> (A.N. Kosygin Moscow State Univ., Russia). Light amplification without stimulated emission of radiation: Does it work in astrophysical masers (20 min)</p>
19:30 – 22:00	WELCOME PARTY		

Wednesday, July 4

8:00	Arrival in Kazan
8:00 – 9:00	BREAKFAST
9:00 – 12:00	Excursion in Kazan
12:00 – 12:20	COFFEE BREAK
13:00	Departure from Kazan
	PLENARY SESSION 2
12:50 – 13:20	<i>Vladimir Zakharov</i> (Lebedev Phys. Inst., RAS, Russia). Verification of the Weak Turbulent Theory and Dissipation due to Wave-Breaking
13:20 – 13:50	<i>Ron Folman</i> (Ben-Gurion Univ., Israel). Atom Chips
14:00 – 15:00	LUNCH

Wednesday, July 4 / afternoon

<p>15:00 – 17:00</p>	<p>TOPICAL SECTIONS 2, 5, 3</p>		
	<p>TS 2: High-Field Optics and Nonlinear Processes in Plasmas</p> <p>2-10. <i>A. Fruchtmann et al</i> (Holon Inst. Technology, Israel). The divergence of a supersonic plasma jet (<i>invited</i>, 30 min)</p> <p>2-11. <i>T. Carter</i> (Univ. of California in Los Angeles, USA). Generation of coherent structures in drift wave turbulence (<i>invited</i>, 30 min)</p> <p>2-12. <i>M.V. Starodubtsev et al</i> (Inst. Appl. Phys., RAS, Russia). Nonlinear trapping of langmuir waves in a magnetoplasma (20 min)</p> <p>2-13. <i>S.V. Ryzhkov</i> (Bauman State Tech. Univ., Russia) Nonlinear process and transport in FRC plasma (20 min)</p>	<p>TS 5: Nonlinear Optics and Coherent Phenomena in Quantum Systems</p> <p>5-10. <i>Yu. Golubev et al</i> (St.-Petersburg University, Russia). Purity of field state in the non-degenerate optics parametric oscillator above threshold (<i>invited</i>, 30 min)</p> <p>5-11. <i>M. Macovei et al</i> (Max-Planck-Inst. Quantenoptik, Heidelberg, Germany). Strong-field spatial quantum interference in a tailored electromagnetic reservoir (<i>invited</i>, 30 min)</p> <p>5-12. <i>L.A. Gushchin et al</i> (Inst. Appl. Phys., RAS, Russia) Investigation of interference quantum effects on Zeeman transitions in Nd:LaF crystal (20 min)</p> <p>5-13. <i>K. Oganesyanyan et al</i> (Yerevan Phys. Inst., Armenia). The threshold conditions for FELWI (20 min)</p> <p>5-14. <i>V.A.Polovinkin et al</i> (Inst. Appl. Phys., RAS, Russia). Pulse train formation in resonant frequency modulated two-level medium (20 min)</p>	<p>TS 3: Nonlinear Processes in Fluid Dynamics and Acoustics</p> <p>3-1. <i>L. Ostrovsky</i> (NOAA Environmental Tech. Lab., USA and Inst. Appl. Phys., RAS, Russia). Radiation force, shear waves, and medical ultrasound (<i>invited</i>, 30 min)</p> <p>3-2. <i>A. Virovlyansky et al</i> (Inst. Appl. Phys., RAS, Russia). Chaotic ray dynamics in random media (20 min)</p> <p>3-3. <i>V. Andreev et al</i> (Moscow State Univ., Russia). Generation of acoustic waves in thin metallic films by microwave nanosecond pulses (20 min)</p> <p>3-4. <i>V.E. Nazarov et al</i> (Inst. Appl. Phys., RAS, Russia) Propagation of unipolar acoustic pulses in media with hysteretic nonlinearity and linear dissipation (20 min)</p> <p>3-5. <i>N.Ye. Nikitina</i> (Nizhny Novgorod Mech. Engineering Inst., Russia). Nonlinear acoustics used for nondestructive evaluation of biaxial stress of pipelines (20 min)</p>
<p>16:50 – 17:10</p>	<p>COFFEE BREAK</p>		

17:20 – 19:00	TOPICAL SECTIONS 2, 5, 6		
	<p>TS 2: High-Field Optics and Nonlinear Processes in Plasmas</p> <p>2-14. <i>H. Yoneda et al</i> (Univ. Electro-Communications, Japan). Warm dense matter science by using ultra-short-pulse lasers (<i>invited</i>, 30 min)</p> <p>2-15. <i>A.A Balakin</i> (Inst. Appl. Phys., RAS, Russia). Electron-ion collisions in strong relativistic laser field (20 min)</p> <p>2-16. <i>V.Yu. Martyanov et al</i> (Inst. Appl. Phys., RAS, Russia). Self-consistent current filaments in collisionless plasma with anisotropic particle distribution (20 min)</p> <p>2-17. <i>A.V. Korzhimanov et al</i> (Inst. Appl. Phys., RAS, Russia). The structure of the plasma wake field induced by super-intense laser pulse and generation of the relativistic electrons in underdense plasma layer (20 min)</p>	<p>TS 5: Nonlinear Optics and Coherent Phenomena in Quantum Systems</p> <p>5-15. <i>N. Kroo</i> (Hungarian Acad. Sci., Hungary). Surface plasmon enhanced Raman scattering (<i>invited</i>, 30 min)</p> <p>5-16. <i>L.E. Reichl</i> (Texas A&M University, USA). The influence of classical nonlinear dynamics on laser driven atomic systems (<i>invited</i>, 30 min)</p> <p>5-17. <i>V.V. Arinin et al</i> (Kazan State Univ. Russia). Coherent RF mixing and quantum interference in resonant fluorescence of light on atomic states (20 min)</p> <p>5-18. <i>Wang Kaige et al</i> (Beijing Normal Univ., China). Complementarity in correlated double-slit interference with thermal light (20 min)</p>	<p>TS 6: Optoelectronics and THz Physics</p> <p>6-1. <i>A. Patane et al</i> (Univ. Nottingham, UK). Nonlinear electron dynamics in dilute nitride alloys (<i>invited</i>, 30 min)</p> <p>6-2. <i>V. Gavrilenko et al</i> (Inst. Phys. Microstructure, RAS, Russia). Cyclotron resonance in InAs/AlSb quantum well heterostructures in quantizing magnetic fields (<i>invited</i>, 30 min)</p> <p>6-3. <i>A. Balandin et al</i> (Univ. California -Riverside, USA). Confined acoustic phonons in semiconductor nanostructures (20 min)</p>
19:00 – 20:00	DINNER		
20:30 – 21:30	EVENING PROGRAM		

Thursday, July 5

8:00	Arrival in Shiryaev		
8:00 – 9:00	BREAKFAST		
9:00 – 10:00	Riverside outing		
10:00	Departure from Shiryaev		
	PLENARY SESSION 3		
10:30 – 11:00	<i>Olga Kocharovskaya</i> (Texas A&M University, USA and Inst. Appl. Phys., RAS, Russia). Atomic and Nuclear Coherence Effects in Solids		
11:00 – 11:30	<i>Andre Mysyrowicz</i> (Ecole Polytechnique, France) Nonlinear propagation of intense short laser pulses in transparent media		
11:30 – 11:50	COFFEE BREAK		
	PLENARY SESSION 4		
11:50 – 12:20	<i>Rashid Sunyaev</i> (Space Res. Inst., RAS, Russia and Max-Planck Inst. Astrophysik, Germany). Clusters of galaxies, CMB and cosmology		
12:20 – 12:50	<i>Howard Carmichael</i> (Univ. Auckland, New Zealand). Quantum stochastic heating of a trapped ion		
12:50 – 13:20	<i>Vladislav Timofeev</i> (Inst. Solid State Phys., RAS, Russia) Coherence of Bose-Condensate of Dipolar Excitons		
13:30 – 14:30	LUNCH		
	TOPICAL SECTIONS 2, 5, 6		
15:00 – 16:40	<p>TS 2: High-Field Optics and Nonlinear Processes in Plasmas</p> <p>2-18. <i>O. Cohen</i> (Univ. Colorado and National Inst. Standards and Technology, USA). Attosecond nonlinear optics in high harmonic generation (<i>invited</i>, 30 min)</p> <p>2-19. <i>T. Popmintchev et al</i> (Univ. Colorado, USA). Enhanced high harmonic generation from ions in a capillary discharge (20 min)</p> <p>2-20. <i>G.M. Fraiman</i> (Inst. Appl. Phys., RAS, Russia). Collision attosecond pulses generation in ultra high illuminated plasmas (20 min)</p> <p>2-21. <i>M.B. Smirnov</i> (Kurchatov Institute, Russia). High-order harmonic generation in cluster plasma (20 min)</p>	<p>TS 5: Nonlinear Optics and Coherent Phenomena in Quantum Systems</p> <p>5-19. <i>J. Odeurs et al</i> (Katholieke Univ. Leuven, Belgium) Aspects of EIT with nuclear radiation (<i>invited</i>, 30 min)</p> <p>5-20. <i>B. Zon</i> (<i>invited</i>, 30 min)</p> <p>5-21. <i>R. Shakhmuratov et al</i> (Kazan Phys.-Tech. Inst., Russia). Two models of level-mixing induced transparency for gamma radiation (20 min)</p> <p>5-22. <i>P. Anisimov et al</i> (Texas A&M University, USA). Suppression of the gamma-photon absorption via quantum coherence effects under nuclear level anti-crossing in thin samples (20 min)</p>	<p>TS 6: Optoelectronics and THz Physics</p> <p>6-4. <i>I. Shadrivov</i> (Australian National Univ., Australia). Nonlinear properties of metamaterials (<i>invited</i>, 30 min)</p> <p>6-5. <i>V.G. Arkhipkin et al</i> (Inst. Phys. SB RAS, Russia). Narrowing of defect modes of photon crystal using electromagnetically induced transparency (20 min)</p> <p>6-6. <i>Ye. Radionychyev et al</i> (Inst. Appl. Phys., RAS, Russia). Ultraviolet continuous wave photonic crystal laser (20 min)</p>

Thursday, July 5 / afternoon

16:40 – 17:00	COFFEE BREAK		
	TOPICAL SECTIONS 2, 1, 6		
17:00 – 19:00	<p>TS 2: High-Field Optics and Nonlinear Processes in Plasmas</p> <p>2-22. <i>S. Graefe et al</i> (Steacie Inst. Molecular Sci., Canada). Attosecond dynamics of electron localization in a dissociating hydrogen molecule in a strong electric field (<i>invited</i>, 30 min)</p> <p>2-23. <i>M. Ryabikin</i> (Inst. Appl. Phys., RAS, Russia). Subfemtosecond monitoring of intramolecular processes using few-cycle laser pulses (<i>invited</i>, 30 min)</p> <p>2-24. <i>A. Savel'ev et al</i> (Moscow State Univ., Russia). Self-compression of subTW femtosecond laser pulses under filamentation in gaseous media (20 min)</p> <p>2-25. <i>A. Gonoskov et al</i> (Inst. Appl. Phys., RAS, Russia). High energy proton generation at the interaction of short relativistic laser pulses with solid targets (20 min)</p> <p>2-26. <i>S.Y. Mironov et al</i> (Inst. Appl. Phys., RAS, Russia). High-dynamic-range measurement of intensity contrast of 1PW femtosecond laser pulse (20 min)</p>	<p>TS 1: Nonlinear Dynamics and General Problems of Nonlinear Waves</p> <p>1-5. <i>P. Kaw et al</i> (Inst. Plasma Res., India). Stability of one-dimensional laser envelope solitons (<i>invited</i>, 30 min)</p> <p>1-6. <i>V. Tyutin et al</i> (Inst. Appl. Phys., RAS, Russia) . The dynamics of short envelope solitons in media with controlled dispersion (20 min)</p> <p>1-7. <i>D.L. Dorofeev et al</i> (Voronezh State Univ., Russia). Nonlinear magnetoacoustic waves in rare earth orthoferrites (20 min)</p> <p>1-8. <i>D.I. Spitsyn et al</i> (Voronezh State Univ., Russia). Electrohydrostatic instability of liquid metal surface (20 min)</p>	<p>TS 6: Optoelectronics and THz Physics</p> <p>6-7. <i>M. Nazarov et al</i> (Moscow State Univ., Russia). Propagation of THz plasmon pulse on low-dimensional metal surface (<i>invited</i>, 30 min)</p> <p>6-8. <i>A. Shepelev et al</i> (A.N. Kosygin Moscow State Univ., Russia). Nonlinear susceptibilities of semiconductors in the THz range and THz generation in semiconductors with nanochannels (<i>invited</i>, 30 min)</p> <p>6-9. <i>E. Kuznetsova et al</i> (Texas A&M University, USA). Generation of coherent terahertz radiation in optical crystals at room temperature (20 min)</p>
19:00 – 20:00	DINNER		
20:30 – 21:30	EVENING PROGRAM		

Friday, July 6

8:00 – 9:00	BREAKFAST
9:00	Arrival in Saratov
9:00 – 11:30	Excursion in Saratov
11:30 – 11:50	COFFEE BREAK
11:50 – 12:20 12:20 – 12:50	PLENARY SESSION 5 <i>Vladimir Kocharovsky</i> (Inst. Appl. Phys., RAS, Russia). Unveiling a mystery of ultra-high energy cosmic rays <i>Ian Musgrave</i> (Rutherford Appleton Lab., UK) Development of 10 PW OPCPA Capability on the Vulcan Laser
13:00 – 14:00	LUNCH
14:00	Departure from Saratov

Friday, July 6 / afternoon

15:00 – 16:50	TOPICAL SECTIONS 5, 1, 3		
	<p>TS 5: Nonlinear Optics and Coherent Phenomena in Quantum Systems</p> <p>5-23. <i>A. Savel'ev et al</i> (Moscow State Univ., Russia). Detection of internal conversion from 14 keV level of Fe57 isomer aroused from femtosecond laser plasma interaction (<i>invited</i>, 30 min)</p> <p>5-24. <i>A. Palffy et al</i> (Max-Planck Inst. Nuclear Phys., Heidelberg, Germany). Resonant nuclear excitation by photons or electrons (20 min)</p> <p>5-25. <i>S.A. Karamian et al</i> (Joint Inst. Nuclear Res., Russia). Possible experiment on depletion of the 108mag isomer via coulomb excitation (20 min)</p>	<p>TS 1: Nonlinear Dynamics and General Problems of Nonlinear Waves</p> <p>1-9. <i>A. Litvak et al</i> (Inst. Appl. Phys., RAS, Russia). Ultra-short laser pulse self-focusing in dispersive media (<i>invited</i>, 30 min)</p> <p>1-10. <i>A. Bezen et al</i> (Univ. of Melbourne, Australia). Kink propagation within the forced sine-Gordon equation (20 min)</p> <p>1-11. <i>S. Derevyanko et al</i> (Aston Univ., UK). Gaussian pulse to soliton conversion in quasilossless and lossy optical fibre spans (20 min)</p> <p>1-12. <i>D.S. Agafontsev et al</i> (Inst. Theor. Phys., RAS, Russia). Bifurcations and stability of internal solitary waves (20 min)</p> <p>1-13. <i>S. Batalov et al</i> (Inst. Metal Phys., RAS, Russia). Autoresonant formation and control of drift waves (20 min)</p>	<p>TS 3: Nonlinear Processes in Fluid Dynamics and Acoustics</p> <p>3-6. <i>E. Kuznetsov</i> (Lebedev Phys. Inst., RAS, Russia). Nonlinear theory of mirror instability near threshold (<i>invited</i>, 30 min)</p> <p>3-7. <i>S.V. Prants et al</i> (Pacific Oceanological Inst., RAS, Russia). Chaotic transport and dynamical traps in oceanic jet currents (20 min)</p> <p>3-8. <i>A.O. Korotkevich et al</i> (Landau Inst. Theor. Phys.). Numerical verification of the weak turbulent model for swell evolution (20 min)</p> <p>3-9. <i>S.N. Lukaschuk et al</i> (Univ. Hull, UK). Spectra of gravity wave turbulence in the laboratory flume (20 min)</p> <p>3-10. <i>Yu. Stepanyants et al</i> (Australian Nuclear Sci. and Tech. Org.). Bathtub vortices in the liquid discharging from the bottom orifice of a cylindrical vessel (20 min)</p>
16:50 – 17.10	COFFEE BREAK		
17.10 – 19.00	POSTER SESSION 1		
19:00 – 20:00	DINNER		
20:30 – 21:30	EVENING PROGRAM		

Saturday, July 7

8:00 – 9:00	BREAKFAST
9:00 – 9:30	PLENARY SESSION 6 <i>Elisabeth Giacobino</i> (Ecole Normale Supérieure, France). Quantum Memories
9:30 – 10:00	<i>Alexander Pukhov</i> (Univ. Duesseldorf, Germany). Relativistic Laser Plasmas: Novel Particle and Radiation Sources
10:00 – 10:30	<i>Mathias Fink</i> (University Paris 7, France). Time-Reversed Waves and Super-Resolution
10:30 – 11:00	<i>Evgeny Suvorov</i> (Inst. Appl. Phys., RAS, Russia) Techniques for generation of THz radiation
11:00 – 11:20	COFFEE BREAK
11:30	Arrival in Samara
11:30 – 14:00	Excursion in Samara
14:00 – 15:00	LUNCH
15:00	Departure from Samara

<p>16:00 – 17:50</p>	<p>TOPICAL SECTIONS 1, 3, 7</p>		
	<p>TS 1: Nonlinear Dynamics and General Problems of Nonlinear Waves</p> <p>1-14. <i>H. Benner et al</i> (Darmstadt Univ. of Technology, Germany). Chaos control by time-delayed feedback: Observing global properties in electronic circuits (<i>invited</i>, 30 min)</p> <p>1-15. <i>V. Klyatskin</i> (A.M. Obukhov IFA, RAS, Russia). The typical realization curve and Lyapunov exponent in stochastic dynamical systems (20 min)</p> <p>1-16. <i>S.P. Kuznetsov et al</i> (Kotel'nikov Inst. Radio-Engineering and Electronics, RAS, Russia). Hyperbolic Smale – Williams attractor in Poincaré map of a four-dimensional autonomous system (20 min)</p> <p>1-17. <i>E. Maslov et al</i> (Inst. Terrestrial Magnetism, Ionosphere and Radiowave Propagation, RAS, Russia). Resonant phaselocking in extended systems: sine-Gordon equation (20 min)</p> <p>1-18. <i>A.Yu. Chirkov</i> (Bauman State Tech. Univ., Russia). Dynamics of finite amplitude nonlinear waves in sheared flows of fluids and plasmas (20 min)</p>	<p>TS 3: Nonlinear Processes in Fluid Dynamics and Acoustics</p> <p>3-11. <i>S. Shagalov</i> (Inst. Appl. Phys., RAS, Russia). On the resonant interaction of nonlinear internal wave packets with a subsurface shear flow (20 min)</p> <p>3-12. <i>G.V. Rybushkina et al</i> (Inst. Appl. Phys., RAS, Russia). Convective mode switching in a thin liquid layer with a shear flow (20 min)</p> <p>3-13. <i>V.P. Reutov et al</i> (Inst. Appl. Phys., RAS, Russia). Selection of the thermo-capillary convective rolls in evaporating liquid blown up by an air current (20 min)</p> <p>3-14. <i>G.A. Khabakhpashev et al</i> (Inst. Thermophys., SB RAS, Russia). Transformation of nonlinear three-dimensional perturbations on a free surface of the shallow water above a gently sloping bottom (20 min)</p> <p>3-15. <i>A.V. Dolgikh et al</i> (Voronezh State Univ., Russia). Capillary waves of arbitrary amplitude with Tolman's nonlinearity (20 min)</p>	<p>TS 7: Physics of Cold Gases</p> <p>7-1. <i>V.V. Kocharovsky</i> (Texas A&M Univ., USA and Inst. Appl. Phys., RAS, Russia). Quantum kinetic theory of Bose-Einstein condensation (<i>invited</i>, 30 min)</p> <p>7-2. <i>R. Schmied et al</i> (Max-Planck-Inst. Quantenoptik, Garching, Germany). Glasses and quantum phase transitions in trapped ions (<i>invited</i>, 30 min)</p> <p>7-3. <i>Yu. Lozovik</i> (Inst. Spectroscopy, RAS, Russia). Strong correlation effects in exciton BEC (<i>invited</i>, 30 min)</p> <p>7-4. <i>A.M. Kamchatnov et al</i> (Inst. of Spectroscopy RAS, Russia). Wave patterns in supersonic flow of a Bose-Einstein condensate past an obstacle (20 min)</p>
<p>17:50 – 18:10</p>	<p>COFFEE BREAK</p>		
<p>18.10 – 20.00</p>	<p>POSTER SESSION 2</p>		
<p>20:00 – 22:00</p>	<p>DINNER PARTY</p>		

Sunday, July 8

8:00 – 9:00	BREAKFAST
	PLENARY SESSION 7
9:00 – 9:30	<i>Philip Hemmer</i> (Texas A&M University, USA). Diamond-Based Quantum Registers at Room-Temperature
9:30 – 10:00	<i>Efim Khazanov</i> (Inst. Appl. Phys., RAS, Russia) Toward Multi-Petawatt Laser Based on Chirped Pulse Optical Parametric Amplification
10:00 – 10:30	<i>Kristian Dysthe</i> (Univ. Bergen, Norway). Rogue Waves
10:30 – 11:00	<i>Alexey Starobinsky</i> (Landau Inst. Theor. Phys., RAS, Russia). Dark Energy in the Universe
11:00 – 11:20	COFFEE BREAK
	PLENARY SESSION 8
11:20 – 11:50	<i>Jonathan Dowling</i> (Louisiana State Univ., USA). Designer optical nonlinearities at the few-photon level: putting projective measurements to work
11:50 – 12:20	<i>Anatoly Cherepashchuk</i> (Sternberg Astronomical Inst., Russia) Demography of Black Holes
12:20 – 12:50	<i>Nicholas B. Suntzeff</i> (Texas A&M University, USA) Supernovae and the Dark Universe
13:00 – 14:00	LUNCH
	PLENARY SESSION 9
15:00 – 15:30	<i>Maurice Courbage</i> (Univ. Paris 7, France) Dynamical Chaos and Entropy Increase
15:30 – 16:00	<i>Nicholas H. Matlis</i> (Lawrence Berkeley National Lab, USA) Photographing Laser Wakefields
16:00 – 16:30	<i>Vladimir Zaitsev</i> (Inst. Appl. Phys., RAS, Russia) Studies of Nonlinear Mesoscopic Elasticity: Intermediate Milestones and Recent Trends
18:30 – 19:30	DINNER
20:00	Arrival in Cheboksary
20:00 – 22:00	Excursion in Cheboksary
23:00	Departure from Cheboksary

Monday, July 9

8:00 – 9:00	BREAKFAST
9:00	Arrival in Makar'ev
9:00 – 11:00	Excursion in Makar'ev
11:00 – 11:20	COFFEE BREAK
12:00	Departure from Makar'ev
12:30 – 13:30	CLOSING SESSION
14:00 – 15:00	LUNCH
17:00	Arrival in Nizhny Novgorod
17:15 – 19:15	Excursion in Nizhny Novgorod / Institute of Applied Physics

POSTER SESSION 1

- P-1.** *A.V. Andrianov et al* (Inst. Appl. Phys., RAS, Russia). Pulsed generation of far-infrared and terahertz radiation via intracavity nonlinear mixing in mode-locked heterolasers
- P-2.** *P. Berloff et al* (Woods Hole Oceanographic Inst., USA). The turbulent oscillator: A mechanism of low-frequency variability of the wind-driven ocean gyres
- P-3.** *E.V. Ezhova et al* (Inst. Appl. Phys., RAS, Russia). Laboratory modeling of excitation of internal waves by turbulent buoyant plumes discharged from a submerged wastewater outfall
- P-4.** *V.I. Geyko et al* (Inst. Appl. Phys., RAS, Russia). Self-guiding a Bose-Einstein condensed atomic beam directed by a laser radiation
- P-5.** *N.V. Zaitseva et al* (Inst. Appl. Phys., RAS, Russia). Composite solitons for the Choi-Camassa model (CC-model) and their importance for the description of the evolution of internal waves without amplitude and velocity constraint.
- P-6.** *P.A. Kalinin et al* (Inst. Appl. Phys., RAS, Russia). High-quality polariton modes and long-scale coherence in Bose-condensate of indirect excitons
- P-7.** *L.A. Smirnov et al* (Inst. Appl. Phys., RAS, Russia). Excitation Of Bose – Einstein Condensate By Moving Supersonic Potential Barriers

POSTER SESSION 2

- P-8.** *D.A. Fadeev et al* (Inst. Appl. Phys., RAS, Russia). Nonlinear dynamics of relativistic strong ultra-short electromagnetic pulses in cold plasma
- P-9.** *S.I. Kaskov* (Bauman State Tech. Univ., Russia). Nonlinear systems of differential equations of dynamics in heat exchangers
- P-10.** *V.A. Kostin et al* (Inst. Appl. Phys., RAS, Russia). Terahertz emission from the superluminous ionization front propagating in the external electric field
- P-11.** *V.A. Mironov et al* (Inst. Appl. Phys., RAS, Russia). Ultra-short pulse propagation in partially ionized gas
- P-12.** *E.N. Nerush et al* (Inst. Appl. Phys., RAS, Russia). QED effects in a strong plasma wakefield
- P-13.** *M.G. Tolmachev et al* (Inst. Appl. Phys., RAS, Russia). Neighbor ion influence on pair electron-ion collisions in strong laser field

Personal Schedule

July 3			July 4			July 5			July 6			July 7			July 8			July 9		
BREAKFAST																				
OPENING SESSION (10:30-11:00) PLENARY TALK (11:00 -11:30) L. Pitaevskii			EXCURSION: KAZAN 9:00 – 12:00			EXCURSION: SHIRYAEVO 9:00 – 10:00 PLENARY TALKS: (10:30-11:30) O. Kocharovskaya A. Mysyrowicz			EXCURSION: SARATOV 9:00 – 11:30			PLENARY TALKS: (9:00 - 11:00) E. Giacobino A. Pukhov M. Fink E. Suvorov			PLENARY TALKS: (9:00 - 11:00) P. Hemmer E. Khazanov K. Dysthe A. Starobinsky			EXCURSION: MAKAR'EV 9:00 – 11:00		
COFFEE BREAK																				
PLENARY TALKS: (11:50-13:20) N. Fisch M. Lukin I. Novikov			PLENARY TALKS: (12:20-13:20) V. Zakharov R. Folman			PLENARY TALKS: (11:20-12:50) R. Sunyaev H. Carmichael V. Timofeev			PLENARY TALKS: (11:50-12:50) V. Kocharovsky I. Musgrave			EXCURSION: SAMARA (11:30 – 14:00)			PLENARY TALKS: (11:20 – 12:50) J. Dowling A. Cherepashchuk N.B. Suntzeff			CLOSING SESSION (12:30 – 13:30)		
LUNCH																				
TS 2	TS 5	TS 1	TS 2	TS 5	TS 3	TS 2	TS 5	TS 6	TS 5	TS 1	TS 3	TS 1	TS 3	TS 7	PLENARY TALKS: (15:00 – 16:30) M. Courbage N.H. Matlis V. Zaitsev					
COFFEE BREAK																				
TS 2	TS 5	TS 4	TS 2	TS 5	TS 6	TS 2	TS 1	TS 6	POSTER SESSION 1			POSTER SESSION 2			EXCURSION: NIZHNY NOVGOROD 17:15 – 19:15					
DINNER																				
															EXCURSION: CHEBOKSARY 20:00 – 22:00					