II ALL-RUSSIAN CONFERENCE ON PHOTONICS AND INFORMATION OPTICS

January, 2013, 23-25

Organizers of the conference

The Russian academy of sciences
National research nuclear university «MEPhI»

The Program committee

Chairmans:
Gulyaev Yu.V. – Kotelnikov institute of radio-engineering and electronics of the RAS, Moscow
Evtikhiev N.N. – National research nuclear university «MEPhI», Moscow

Vishnyakov G.N. – Russian research institute for optical and physical measurements, Moscow
Volostnikov V.G. – Samara branch of Lebedev physical institute of the RAS
Kozlov S.A. – Saint-Petersburg national research university of information technologies, mechanics and optics
Komotskii V.A. – Peoples friendship university of Russia, Moscow
Kompanets I.N. – Lebedev physical institute of the RAS, Moscow
Krishtop V.V. – Far eastern state transport university, Khabarovsk
Kulchin Yu.N. – Institute of automation and control processes FEB RAS, Vladivostok
Lavrov A.P. – Saint-Petersburg state polytechnical university, Russia
Maimistov A.I. – National research nuclear university «MEPhI», Moscow
Malov A.N. – Irkutsk state medical university
Manykin E.A. – National research center "Kurchatov institute", Moscow
Potaturkin O.I. – Institute of automation and electrometry SB RAS, Novosibirsk
Proklov V.V. – Fryazino branch of Kotel'nikov institute of radio-engineering and electronics of RAS
Starikov R.S. – National research nuclear university «MEPhI», Moscow
Tverdokhleb P.E. – Institute of automation and electrometry SB RAS, Novosibirsk
Fetisov Yu.K. – Moscow state technical university of radio-engineering, electronics and automation
Fyodorov I.B. – Bauman Moscow state technical university
Shandarov S.M. – Tomsk state university of control systems and radioelectronics

The Organizing committee

Chairman
Petrovskii A.N. – National research nuclear university «MEPhI», Moscow
Scientific secretary
Rodin V.G. – National research nuclear university «MEPhI», Moscow

Conference location

National research nuclear university «MEPhI», Moscow, Russia, Kashirskoye shosse, 31
Phone: (499) 324-74-03, Fax: (499) 324-74-03
E-mail: **holo@pico.mephi.ru**, **holo_mephi@mail.ru**
http://fioconf.mephi.ru

THE PROGRAMM OF CONFERENCE

CONFERENCE OPENING. PLENARY

Wednesday, January 23, 2013, 11.00 Room 405

1. PROKLOV V.V.
   Fryazino branch of Kotel'nikov institute of radio-engineering and electronics of RAS
   New acoustooptics methods of data transmission and processing in optical systems of telecommunications and Earth remote probing
2. KAZANSKIY N.L. [1,2], SERAFIMOVICH P.G.[1,2]
   [1]Image processing systems institute of the RAS, Samara
   [2]S.P. Korolyov Samara state aerospace university)
   Design of high Q-factor resonators based on photonic crystal waveguides
3. BETIN A.Yu.[1], BOBRINEV V.I.[1], EVTIKHIEV N.N., ZHERDEV A.Yu.[1], ZLOKAZOV E.Yu., LUSHNIKOV D.S.[1], MARKIN V.V.[1], ODINOKOV S.B.[1], STARIKOV R.S., STARIKOV S.N.
   National research nuclear university «MEPhI»
   [1]Bauman Moscow state technical university
   Method of computer synthesis and projection recording of microholograms for holographic memory

PLENARY. LECTION FOR YOUNG SCIENTISTS

Wednesday, January 23, 2013, 13.00 Room 405

4. MISHINA E.D.
   Moscow state technical university of radio-engineering, electronics and automation
   New materials of photonics: ferroelectric photon crystals, bioorganic luminescent nanotubes
5. VISHNYAKOV G.N.
   All-Russian research institute for optical and physical measurements, Moscow
   Methods and instruments of measurements of materials' optical constants
6. STARIKOV R.S.
   National research nuclear university «MEPhI»
   Photonic A/D converters: state of art and perspectives

POSTERS

Wednesday, January 23, 2013, 15.00 Room 405

Meeting 1

Wednesday, January 23, 2013, 16.00 Room 405

7. ROMASHKO R.V.[1,2], EFIMOV T.A.[1], ASALCHANOVA M.A.[2]
[1]Institute of automation and control processes of FEB RAS, Vladivostok
[2]Far eastern federal university, Vladivostok
The holographic measurement system of nanoscale movements of micro and macro objects
8. DORONIN I.S.[1], OKISHEV K.N.[1], KRISHTOP V.V.[1,2]
[1]Far eastern state transport university, Khabarovsk
[2]Kwangwoon University, Korea, Seoul
The behavior of the autocorrelation function of the scattered radiation for photon correlation spectroscopy with attenuated total reflection scheme
9. BUSURIN V.I., KAZARYAN A.V., ZHEGLOV M.A., DVORNIKOVA O.D.
Moscow aviation institute (National research university)
Sensors linear acceleration based on optical tunnel effect for control system aircraft
10. GONCHAR I.V., IVANOV A.S., FEDORTSOV A.B.
National mineral resources university, Saint-Petersburg
The laser interferometry method and device of the films thickness measurement
11. BASISTY E.V., KOMOTSKII V.A.
Peoples' friendship university of Russia, Moscow
The detection of small angular deviations of laser beam
12. PAVLOV I.N., RINKEVICHYUS B.S.
National research university "Moscow power engineering institute"
Laser diagnostics of liquid boundary layer crystallization
13. SHASHKOVA I.A., SKORNYAKOVA N.M.
National research university "Moscow power engineering institute"
Visualization Marangoni vortexes in liquid droplets
14. TALAYKOVA N.A.[1], KALYANOV A.L.[1], LYCHAGOV V.V.[1], RYABUKHO V.P.[1,2], MALINOVA L.I.[3]
[1]Saratov state university
[2]Institute of precision mechanics and control of the RAS, Saratov
[3]Saratov SII cardiology Rosmedtechnologii
Low-coherence diffraction phase microscope for phase objects investigation
15. VORONTSOVA E.A., CHERNYSHOV A.K.
Samara branch of Lebedev physical institute of the RAS
MQW diode laser with couple external reflectors for gas analysis
16. BALASHOV A.A., VAGIN V.A., KRADECKIY V.V., KHOROKHORIN A.I., SHILOV M.A.
Scientific and technological center of unique instrumentation of the RAS, Moscow
Fiber-optical fourier spectrometer
17. PETUKHOV V.A., SEMENOV M.A., BELOV S.P.[1], KOMLEV I.V.[2], PONOMAREVA O.V.[2]
Lebedev physical institute of the RAS, Moscow
[1]Bryansk state academician I.G. Petrovski university
[2]OOO NPF «Deltarus», Dolgoprudny
Lasing properties of new efficient laser dyes
18. SIDOROVA M.V., DIVOCHIY A.V., KORNEEV A.A., GOLTSMAN G.N.
Moscow state pedagogical university
Spectral sensitivity of superconducting single-photon detector

Meeting 2

Thursday, January 24, 2013, 10.00 Room 405

19. KOROLENKO P.V., RYZHIKOVA Yu.V.
Lomonosov Moscow state university
Stability fractal features in the optical characteristics of aperiodic structures
20. RYZHIKOVA Yu.V., RYZHIKOV S.B.
Lomonosov Moscow state university
Image formation of nanostructures in optical lithography
21. SHALIN V.B., TROPIN A.N.
Saint-Petersburg state university of aerospace instrumentation
Use of evolutionary strategy and genetic algorithms in the solution of problems of synthesis of optical coverings
22. MASALSKY N.V.
Scientific research institute of system researches of the RAS, Moscow
High-efficient grating coupler for silicon on insulator waveguides
23. PAVLOV S.V., TROFIMOV N.S., CHEKHLOVA T.K.
Peoples' friendship university of Russia, Moscow
Waveguide integrated optics temperature registrator on the based sol-gel films
24. KOLYADIN A.N., KOSOLAPOV A.F., PRYAMIKOV A.D., BIRIUKOV A.S.
Fiber optic research center of the RAS, Moscow
Hollow-core microstructured optical fibers with a negative curvature of the core boundary for mid-IR region
25. KORSAKOV I.V., KAYUMOV V.R.
State national research polytechnical university of Perm
Application of optical fiber in design of functional polymeric basaltic reinforcement
26. AKHMETOV A.O.
National research nuclear university «MEPhI»
Laser color marking of metal
27. ANDROSOV S.S., NIKITIN V.A., POTAPENKO R.A., YAKOVENKO N.A.
Kuban state university, Krasnodar
Making of planar Y-coupler for passive optical networks
28. KUZYAKOV B.A., SMUROVA N.M.
Moscow state technical university of radio-engineering, electronics and automation
The methods of an atmosphere segments distance arising of an optical range telecommunication system
29. GURKIN N.V.[1], KAPIN Yu.A.[1], NANII O.E., NOVIKOV A.G.[1], PAVLOV V.N.[1], PLAKSIN S.O., TRESHIKOV V.N.[1]
Lomonosov Moscow state university
[1]T8 LLC, Moscow
Nonlinear distortions of 40Gbit/s signal with NRZ ADPSK modulation format

Meeting 3

Thursday, January 24, 2013, 13.00 Room 405

30. MANYKIN E.A.[1,2], MELNICHENKO E.V.[2]

[1]*National research nuclear university «MEPhI»*
[2]*National research center "Kurchatov institute", Moscow*
The properties of photon echo for applications in quantum computers

31. SEMENOVA L.E.
Prokhorov general physics institute of the RAS, Moscow
Analysis of scattering of light by LO phonons for two-photon excitation
32. ZHILENKO M.P.[1], ZEMSKOV K.I., KUDRYAVTSEVA A.D., LISICHKIN G.V.[1], SAVRANSKII V.V.[2], TCHERNIEGA N.V., EHRLICH H.V.[1]
Lebedev physical institute of the RAS, Moscow
[1]*Lomonosov Moscow state university*
[2]*Prokhorov general physics institute of the RAS, Moscow*
Nonlinear optic effects in nanoparticles suspensions
33. MAKAROV V.A., PETNIKOVA V.M., PEREZHOGIN I.A., POTRAVKIN N.N., RUDENKO K.V., SHUVALOV V.V.
Lomonosov Moscow state university
Propagation of chirped elliptically polarized waves in an isotropic gyrotropic nonlinear medium
34. GOROBETS A.P.
Peoples' friendship university of Russia, Moscow
Analysis of planar graded-index optical waveguides with strong asymmetry of a refractive index profile by the beam propagation method
35. KAZANTSEVA E.V.[1,2], MAIMISTOV A.I.[1,3]
[1]*National research nuclear university «MEPhI»*
[2]*Joint institute for high temperatures of the RAS, Moscow*
[3]*Moscow institute of physics and technology, Dolgoprudny*
Stability of solitary waves propagating in an array of coupled waveguides with positive and negative index of refraction
36. OSTROUKHOVA E.I.
National research nuclear university «MEPhI»
Distribution of amplitudes of the interacting waves in negative-positive refractive media at third harmonic generation
37. MUKHTUBAEV A.B., KRUGLOV V.G., SHANDAROV V.M., CHEN F.[1]
Tomsk state university of control systems and radioelectronics
[1]*Shandong University, China*
Research opportunities of realization of discrete diffraction in a waveguide structure formed by femtosecond laser
38. ANTSYGIN V.D., KOROLKOV V.P., KONCHENKO A.S., MAMRASHEV A.A., NIKOLAEV N.A., POTATURKIN O.I.
Institute of automation and electrometry SB RAS, Novosibirsk
Multiunit generator of terahertz radiation based on lateral photo-dember effect
39. NALEGAEV S.S., PETROV N.V., BESPALOV V.G.
Saint-Petersburg national research university of information technologies, mechanics and optics
Wide-range spectral supercontinuum usage for iterative phase retrieval procedures
40. REDKA D.N.
Saint-Petersburg state electrotechnical university "LETI"
Analysis of the modes of laser scribing of multilayer thin-film solar modules

Meeting 4

Thursday, January 24, 2013, 16.00 Room 405

41. GORYAEV M.A.
Herzen Russian state pedagogical university, Saint-Petersburg
Silver halides as the basis of materials for the photochemical recording of information
42. MAKIN V.S., MAKIN R.S.[1]
Research institute for complex testing of opto-electronic devices, Sosnovy Bor, Leningrad region
[1]Dimitrovgrad engineering and technological institute NRNU MEPhI, Ulyanovsk region
Resonant interaction of radially polarized laser radiation with matter
43. PEKARSKIH E.A., KISTENEVA M.G., HOROSHILOV A.O., GALEEV A.V., KORNIENKO T.A.[1], KARGIN Yu.F.[2]
Tomsk state university of control systems and radioelectronics
[1]Belarusian state university, Minsk
[2]Baikov institute of metallurgy and materials sciences of the RAS, Moscow
Photoinduced changes of the optical absorption in $Bi_{12}TiO_{20}$:Ca crystal induced by CW lasers
44. BOLDYREV K.N., BOLDYREV N.Yu.
Institute for spectroscopy of the RAS, Troitsk
Analysis of electroactive impurity concentration in high-purity silicon by far infrared spectroscopy
45. DOVZHENKO D.S., KUZISHCHIN Yu.A., MARTYNOV I.L., CHISTYAKOV A.A.
National research nuclear university «MEPhI»
Laser-stimulated desorption/ionization of molecules of nitroaromatic compounds sorbed in nanoporous silicon
46. GENERALOVA A.N.[1], DAYNEKO S.V., ZASEDATELEV A.V., KRIVENKOV V.A., MARTYNOV I.L., CHISTYAKOV A.A.
National research nuclear university «MEPhI»
[1]Shemyakin & Ovchinnikov institute of bioorganic chemistry of the RAS, Moscow
Luminescent properties of hybrid structures based on cadmium selenide nanocrystals
47. SAVELYEV E.A., SHIKIN A.S.[1], GOLANT K.M.
Kotel'nikov institute of radio engineering and electronics of RAS, Moscow
[1]Moscow institute of physics and technology, Dolgoprudny
Cooperative luminescence of Yb3+ ions in fused and unfused silicon dioxide
48. BAZAKUTSA A.P. BUTOV O.V. GOLANT K.M.
Kotel'nikov institute of radio engineering and electronics of RAS, Moscow
On the bithmuth interstitials responsible for near infrared luminescence in silica glass
49. NOVIKOVA Iu.A., KOTLIKOV E.N.
Saint-Petersburg state university of aerospace instrumentation
Research of film-forming materials on the basis of binary fluorides
50. KHRUSCHOVA T.A., POSTNIKOV E.S., DEMICHEV I.A., SIDOROV A.I., EGOROV V.I., SGIBNEV E.M., BABKINA A.N.
Saint-Petersburg national research university of information technologies, mechanics and optics

The influence of ultraviolet radiation and thermal treatment on the luminescence of silicate glasses doped with ion-changed silver

51. BABKINA A.N., SHIRSHNEV P.S., TSEKHOMSKII V.A., NIKONOROV N.V.
Saint-Petersburg national research university of information technologies, mechanics and optics
Thermal effect on the spectral properties of potassium-alumina-borate glasses with copper halides nanocrystalls
52. GONCHAROVA E.N., BRIK E.B.
Photooptic Ltd, Obninsk
Metal-dielectric optical coatings for special aviation displays. Design and fabrication

Meeting 5

Friday, January 25, 2013, 10.00 Room 405

53. BYSHEVSKIJ-KONOPKO O.A., GRIGORIEVSKII V.I., PROKLOV V.V.
Fryazino branch of Kotel'nikov institute of radio-engineering and electronics of RAS
On possibility of constructing of non-coherent fiber-optics data transmission systems using spectral signal coding based on acoustooptics matched filters
54. VOLOSHIN A.S., BALAKSHY V.I., MOLCHANOV V.Ya.[1]
Lomonosov Moscow state university
[1]National university of science and technology «MISIS», Moscow
Peculiarities of acousto-optic diffraction of light beams in crystals with strong acoustic anisotropy
55. VELIKOVSKIY D.Yu.[1], MAZUR M.M.[2], POZHAR V.E.[1,3]
[1]Scientific and technological center of unique instrumentation of the RAS, Moscow
[2]Scientific research institute of physical technical and radioengineering measurements, Mendeleevo, Moscow region
[3]Bauman Moscow state technical university
Project of collinear acousto-optic filter made on $KGd(WO_4)_2$ laser crystal
56. TABACHKOVA K.I.[2], POZHAR V.E.[1,2], PUSTOVOIT V.I.[1,2]
[1]Scientific and technological center of unique instrumentation of the RAS, Moscow
[2]Bauman Moscow state technical university
Ultrasound decay effect on characteristics of narrow transmittance bands of acousto-optic Bragg resonator
57. VOLOSHINOV V.B., DJAKONOV E.A., POLIKARPOVA N.V.
Lomonosov Moscow state university
Transverse acousto-optic interaction with collinear propagation of diffracted light and ultrasound
58. TRUSHIN A.S., CHEKALINA V.A.
Lomonosov Moscow state university
Acoustic field generation by arbitrary shaped transducer in anisotropic medium
59. PERCHIK A.V., TOLSTOGUZOV V.L., TSEPULIN V.G.
Bauman Moscow state technical university
Spectral imaging acousto-optical microscope for thin film thickness measurement
60. KONDAKOV D.V., LAVROV A.P., IVANOV S.I.
Saint-Petersburg state polytechnical university

Output signal-to-noise ratio in acoustooptical filter for chirp radiosignal compression

61. SHMAKOV S.S., ZUEV P.V., BYKOV V.I., SHANDAROV S.M., URBAN A.E., BURIMOV N.I., KARGIN Yu.F.[1], SHEPELEVICH V.V.[2]
Tomsk state university of control systems and radioelectronics
[1]Baikov institute of metallurgy and materials sciences of the RAS, Moscow
[2]I.P. Shamyakin Mozyr state pedagogical university, Belarus
Investigations of inverse flexoelectric effect in photorefractive crystals by method of adaptive holographic interferometry
62. ANDREEV A.L.[1], ZALYAPIN N.V.
National research nuclear university «MEPhI»
[1]Lebedev Physical Institute of the RAS, Moscow
Achievement of light modulation frequency 7 kHz in a display cell with non-helix ferroelectric liquid crystals
63. PANTELEI E., PARANIN V.D., BABAEV O.H.
S.P. Korolyov Samara state aerospace university)
The model of three-electrodes gradient deflector on uniaxial electro-optical crystals

Meeting 6

Friday, January 25, 2013, 13.00 Room 405

64. ZAKHAROV S.M.
Institute of electronic controlling computers, Moscow
The wavelet analysis of cardio intervals obtained by method of photoplethysmography
65. LYAKIN D.V.[1,2], KLYKOV S.S.[1], RYABUKHO V.P.[1,2]
[1]Saratov state university
[2]Institute of precision mechanics and control of the RAS, Saratov
Longitudinal correlation properties of optical fields with broad angular and frequency spectra
66. PETROV N.V.[2], PAVLOV P.V., MALOV A.N.[1]
Military training and research center of the air force, Voronezh
[1]Irkutsk state medical university
[2]Saint-Petersburg national research university of information technologies, mechanics and optics
Description of the process of propagation and reflection of the optical vortitex by scalar theory of diffraction
67. VOLOSTNIKOV V.G.[1], KISHKIN S.A.[1,2], KOTOVA S.P.
[1]Samara branch of Lebedev physical institute of the RAS
[2]Samara state university
Spiral beams: new approach to contour analysis
68. PANKRATOVA Y.V., LARICHEV A.V.
Lomonosov Moscow state university
Comparison of wave front estimation iterative methods
69. DMITRIEVA E.L., VOLYNSKY M.A.
Saint-Petersburg national research university of information technologies, mechanics and optics

The investigation of algorithm of sigma point Kalman filter

70. IVANOV P.A.
Yaroslavl state technical university
Usage of composite filters in problems of geometrically distorted images recognition
71. EVTIKHIEV N.N., ZLOKAZOV E.Yu., STARIKOV R.S., SHAULSKY D.V.
National research nuclear university «MEPhI»
Research of properties of minimum correlation energy distortion invariant filters
72. ODINOKOV S.B., MARKIN V.V., SOLOMASHENKO A.B.
Bauman Moscow state technical university
Holographic indicator and scheme of its recording
73. ISAKOV K.A., LYALYUSKIN L.S., PAVLOV A.V.
Saint-Petersburg national research university of information technologies, mechanics and optics
Inductive concept generation by fourier-holography setup: an influence of iterative mapping on the hypothesys properties
74. BYKOVSKY A.Yu.[1], RAGER B.Yu.
National research nuclear university «MEPhI»
[1]Lebedev physical institute of the RAS, Moscow
Dynamical decision model of a mobile agent, based on accurate and approximate scene data

Meeting 7

Friday, January 25, 2013, 16.00 Room 405

75. KALENKOV S.G., KALENKOV G.S., SHTAN'KO A.E.[1]
Moscow state technical university «MAMI»
[1]Moscow state technological university «Stankin»
Fourier spectrometer as system of holographic imaging of microobjects
76. YANOVSKIY A.V., BOVSUNOVSKY I.V.[1], MOROZOV A.V.[1]
Scientific technical centre "Atlas", Moscow
[1]Samsung Moscow research center
The impact of holographic noises and aberrations on visual qualities of stereo holograms
77. ZHERDEV A.Yu., ODINOKOV S.B., LUSHNIKOV D.S.
Bauman Moscow state technical university
Number of perspectives and planes in holographic stereogram
78. BONDAREVA A.P., EVTIKHIEV N.N., KRASNOV V.V., STARIKOV S.N.
National research nuclear university «MEPhI»
Amplitude targets with flat power spectra used for measurements of 2D MTF of optical systems
79. EVTIKHIEV N.N., PORSHNEVA L.A., STARIKOV S.N., CHERYOMKHIN P.A.
National research nuclear university «MEPhI»
Influence of dynamic range and noises of cameras on signal-to-noise ratio at digital holograms
80. RYABUKHO P.V., PLOTNIKOV P.K.[1]
Saratov state university

[1]*Saratov state technical university*
Digital holographic interferometry of deformation of the surface in the field of contact of two bodies

81. KRAISKII A.V., KUDRIAVTSEV E.M., MIRONOVA T.V., SULTANOV T.T.
Lebedev physical institute of the RAS, Moscow
Study of deformations of transparent materials by correlation method
82. NIKOLAYEVA T.Yu., PETROV N.V.
Saint-Petersburg national research university of information technologies, mechanics and optics
Effect of the fill factor of matrix photodetector on the angular spectrum of plane monochromatic waves
83. VOLOSTNIKOV V.G., VORONTSOV E.N., KOTOVA S.P.
Samara branch of Lebedev physical institute of the RAS
Optical scheme for production of inhomogeneous polarized light beams on the base one diffractive element
84. LEVIN I.A.
Penza state university of architecture and construction
Potentiality of diffractive optical elements in hybrid systems of long-wave IR range
85. MANUHIN B.G., SHALAK D.A., ANDREEVA O.V., CHIVILIKHIN S.A.
Saint-Petersburg national research university of information technologies, mechanics and optics
The effect of environmental conditions variation on volume polymer hologram performance
86. KOVALEV M.S., MORARENKO V.V., ODINOKOV S.B.
Bauman Moscow state technical university
Method of phase function calculation for holographic optical element, forming the image of axissymmetric sighting mark

Posters

87. KRUGLOV A.B., KRUGLOV V.B., OREKHOV M.Yu., OSINTSEV A.V.
National research nuclear university «MEPhI»
Measurement of thermal expansion on a spekl-interferential dilatometer
88. KULCHIN Yu.N., VITRIK O.B., KRAEVA N.P.
Institute of automation and control processes of FEB RAS, Vladivostok
Investigation of nanoparticles deposition in heterogeneous liquid matrix in dynamics using optical noncontact methods based on the spatial data averaging
89. PIKOUL O.Yu., SIDOROV N.V.[1], PALATNIKOV M.N.[1]
Far eastern state transport university, Khabarovsk
[1]*I.V. Tananaev institute of chemistry and technology of rare elements and mineral raw materials of Kola Science Center of the RAS, Apatity, Murmansk region*
The use of laser conoscopic research technique to assess optical homogeneity crystal $LiNbO_3$, doped with Ta and Mg cations
90. KAMENEV O.T., HIZHNYAK R.V., PETROV Yu.S.
Institute of automation and control processes of FEB RAS, Vladivostok
Long-base deformometer on the basis of a Mach-Zehnder interferometer

91. ANUFRIK S.S., BARTASEVICH A.I., LYAVSHUK I.A., KOMAR V.N., LYALIKOV A.M.
Janka Kupala state university, Grodno, Belarus
Interferometric quality control of optical elements
92. BARTASEVICH A.I., LYALIKOV A.M.
Janka Kupala state university, Grodno, Belarus
Combining of procedures of interferometric monitoring and measurement of angles of cuneiform plates
93. PERIN A.S., RYABCHENOK V.Yu., MARKIN A.O., SHANDAROV V.M., PARHANYUK A.N.
Tomsk state university of control systems and radioelectronics
Formation of a waveguide-optical systems in lithium niobate crystals under the influence pyroelectric effect
94. IVANOV V.I., IVANOVA G.D., OKISHEV K.N., KHE V.K.
Far eastern state transport university, Khabarovsk
A nonlinear absorption in the two components liquid medium
95. MISHIN A.Yu., RYZHIKOVA Yu.V.
Lomonosov Moscow state university
Spectral characteristics aperiodic multilayered structures at inclined illumination
96. GORDIENKO A.V., EGOROV A.N., MAVRITSKIY O.B., PECHENKIN A.A., SAVCHENKOV D.V.
National research nuclear university «MEPhI»
Registration of ionization response maps of CMOS ICs under local picosecond laser front side and back side irradiation
97. GONCHAROV P.Yu. KARPOVCHEVA V.D. KUZYAKOV B.A.
Moscow state technical university of radio-engineering, electronics and automation
A parameters optimization of the IR range communications lines
98. KIRILLOVA Yu.A., KUZYAKOV B.A.
Moscow state technical university of radio-engineering, electronics and automation
The dispersion estimations of the laser beam intensity fluctuation in a turbulent atmosphere
99. BORODAKO K.A.[1], SHEYFER D.V.[1], SHELYAKOV A.V.[1], SITNIKOV N.N.[1,2], KORNEEV A.A.[1]
[1]National research nuclear university «MEPhI»
[2]Federal state unitary enterprise "Keldysh research center", Moscow
Structural formation of shape memory alloy TiNiCu observed by laser treatment
100. VAYCHAS A.A., MALOV A.N.[1], MERINOVA D.A.
Irkutsk branch of Moscow state technical university of civil aviation
[1]Irkutsk state medical university
The optical phenomena at laser radiation propagation on liquid film 3D structure boundary surfaces
101. NEUPOKOEVA A.V., MALOV A.N., ЛУЗЯКИНА Е.О.
Irkutsk state medical university
Laser radiation influence on the craquelure-structure of albumen film
102. BOLDYREV K.N.**,** POPOVA M.N.
Institute for spectroscopy of the RAS, Troitsk
Terahertz study of multiferroic crystals $RFe_3(BO_3)_4$ (*R* = Eu, Pr)
103. UMREIKO D.S.[1], KOMYAK A.I., ZAJOGIN A.A., UMREIKO S.D.[1], ZAJOGIN A.P.

Belarusian state university, Minsk, Belarus
[1]Sevchenko research institute of applied physical problems, Minsk, Belarus
Investigation into the formation processes of nanoparticles and fractals of uranium oxides on the glass surface subjected to laser deposition of ammonium uranate thin films by double laser pulses

104. TRINH N.H., FADAEIAN A.R., ZAJOGIN A.P.
Belarusian state university, Minsk, Belarus
Investigation of the formation processes of nanoclusters and fractals of zinc oxides on the glass surface subjected to thin-film deposition by double laser pulses at atmospheric air pressure

105. KIM A.A., NIKONOROV N.V., SIDOROV A.I.
Saint-Petersburg national research university of information technologies, mechanics and optics
Physics of the processes of nonlinear optical response of glass with copper chloride and copper bromide nanocrystals

106. MAKIN V.S., PESNOV Yu.I., PRIVALOV V.E.[1]
Research institute for complex testing of opto-electronic devices, Sosnovy Bor, Leningrad region
[1]Saint-Petersburg state polytechnical university
Microcones on surface of ultra high-melting metals at multi-pulsed laser radiation

107. YEVCHIK A.V., MOISEYENKO V.N., DERGACHOV M.P., DOVBESHKO G.I.[1]
Oles' Honchar Dnipropetrovs'k national university, Ukraine
[1]Institute of physics of the NASU, Kyiv, Ukraine
Raman scattering in $Bi_{12}SiO_{20}$ nanocrystals

108. YEVCHIK A.V., MOISEYENKO V.N., DERGACHOV M.P., DOVBESHKO G.I.[1], SHVETS T.V.
Oles' Honchar Dnipropetrovs'k national university, Ukraine
[1]Institute of physics of the NASU, Kyiv, Ukraine
Fluorescence of intra-molecular proton-transfer substance in synthetic opal pores

109. UMREIKO D.S.[1], ZAJOGIN A.P., KOMYAK A.I., UMREIKO S.D.[1]
Belarusian state university, Minsk, Belarus
[1]Sevchenko research institute of applied physical problems, Minsk, Belarus
Synthesis of uranium oxide nanoclusters from uranyl nitrates on laser-chemical activation of the processes by double laser pulses

110. PATAPOVICH M.P., TRINH N.H., PHAM U.T., BULOICHIK J.I., ZAJOGIN A.P.
Belarusian state university, Minsk, Belarus
Synthesis of calcium and aluminum oxide nanoclusters from salts with laser-chemical activation of the processes

111. KOLCHINSKIY V.A., ROMASHKO R.V., KAMENEV O.T.
Institute of automation and control processes of FEB RAS, Vladivostok
Influence of impurities on photochromic properties of GaN

112. SHISHKANOV O.N., BOYCHENKO A.P.
Kuban state university, Krasnodar
Electrofield sensitivity halogen silver of film Agfa

113. ЕМАЛЕТДИНОВ А.К., ТАЛИПОВ Р.Р.
Ufa state aviation technical university

Modeling of optical properties of quartz with screw superdislocations as photon crystal

114. VOLOSHINOV V.B., MUROMETS A.V., TRUSHIN A.S.
Lomonosov Moscow state university
Phase delays in multiple piezoelectric transducers of acousto-optic cells

115. KUTUZA I.B.[1], POZHAR V.E.[1,2], TSAPENKO A.P.[2], SHURYGIN A.V.[2]
[1]Scientific and technological center of unique instrumentation of the RAS, Moscow
[2]Bauman Moscow state technical university
Raman scattering database development for AOTF spectrometer

116. MELEKHOV A.P., LAVRUKHINE D.V.
National research nuclear university «MEPhI»
The application of the temperature waves technique for researching into the effect of the magnetic field on properties of water and its solutions

117. SYUY A.V., SIDOROV N.V.[1], PALATNIKOV M.N.[1], GAPONOV A.Yu., ANTONYCHEVA E.A.
Far eastern state transport university, Khabarovsk
[1]I.V. Tananaev institute of chemistry and technology of rare elements and mineral raw materials of Kola Science Center of the RAS, Apatity, Murmansk region
Photorefractive scattering of light in crystals $LiNbO_3$:(Y+Mg)

118. KHUDYAKOVA E.S., KISTENEVA M.G., SHANDAROV S.M., KARGIN Yu.F.[1]
Tomsk state university of control systems and radioelectronics
[1]Baikov institute of metallurgy and materials sciences of the RAS, Moscow
IR exposure influence on spectrum dependence of the optical absorption of undoped bismuth silicon oxide crystals

119. LITVINOVA M.N., LITVINOVA V.A., DYATEL S.G., LINNIK N.D.
Far eastern state transport university, Khabarovsk
The spectra of thermal radiation converted in stoichiometric and congruent crystals of lithium niobate

120. SYUY A.V., SIDOROV N.V.[1], PALATNIKOV M.N.[1], GAPONOV A.Yu., ANTONYCHEVA E.A.
Far eastern state transport university, Khabarovsk
[1]I.V. Tananaev institute of chemistry and technology of rare elements and mineral raw materials of Kola Science Center of the RAS, Apatity, Murmansk region
Influence of cations Gd on photorefractive properties of stoichiometric single crystals of lithium niobate

121. YABLOKOVA L.V., GOLOVASHKIN D.L.[1]
S.P. Korolyov Samara state aerospace university)
[1]Image processing systems institute of the RAS, Samara
Joint finite-difference solution of the dalamber and maxwell's equations. One-dimensional case

122. KRYUKOV N.A., PEGANOV S.A.
Saint-Petersburg state university
On discretization in optical measurements

123. GORYUNOV A.E., PETROV N.V.
Saint-Petersburg national research university of information technologies, mechanics and optics
Comparison of scalar and vector diffraction modeling

124. MYSINA N.Yu.[1,2], MAKSIMOVA L.A.[1], GORBATENKO B.B.[3], RYABUKHO V.P.[1,2]
[1]Saratov state university

[2]*Institute of precision mechanics and control of the RAS, Saratov*
[3]*Saratov state technical university*
Numerical modeling of the distribution of the phase difference in the developed speckle-field

125. LYAKIN D.V.[1,2], SDOBNOV A.Yu.[1], RYABUKHO V.P.[1,2]
[1]*Saratov state university*
[2]*Institute of precision mechanics and control of the RAS, Saratov*
Manifestation of a broad angular spectrum of an optical field in the interference microscopy at layered object testing

126. ZLOKAZOV E.Yu., KURBATOV I.A., PETROVA E.K., STARIKOV R.S., SHAULSKY D.V.
National research nuclear university «MEPhI»
Variants of minimum correlation energy filters: holographic realization

127. MIRONOVA T.V.
Lebedev physical institute of the RAS, Moscow
Systematic and statistical errors in correlation measurements

128. MANUHIN B.G., KUCHER D.A., ANDREEVA O.V., CHIVILIKHIN S.A.
Saint-Petersburg National Research University of Information Technologies, Mechanics and Optics
Investigation of free convection of fluid by digital holographic interferometry

129. ZAKHAROV Yu.N., DUDENKOVA V.V., MURAVJEVA M.S., RYBNIKOV A.I.
Lobachevsky state university of Nizhny Novgorod
Registration of optical thickness modification of a live cellular structures with the help of digital off-axis holography

130. LITVINENKO K.O.[1], PEN E.F., VASILYEV E.V.[2], SLEPTSOVA Yu.I.[2]
Institute of automation and electrometry SB RAS, Novosibirsk
[1]*Novosibirsk state technical university*
[2]*Novosibirsk institute of organic chemistry SB RAS, Novosibirsk*
Violation of the reciprocity law in holographic photopolymer materials

131. BAYTYKOV T.J.[1], PANKRATOV S.V., PEN E.F.
Institute of automation and electrometry SB RAS, Novosibirsk
[1]*Novosibirsk state technical university*
Analysis and synthesis of the colors components of art holograms

132. LYALYUSKIN L.S., ORLOV V.V., PAVLOV A.V.
Saint-Petersburg national research university of information technologies, mechanics and optics
Optical technologies for artificial intelligence: experimental practicum "Holographic joint transform correlator"

133. EVTIKHIEV N.N., KRASNOV V.V., STARIKOV S.N., CHERYOMKHIN P.A.
National research nuclear university «MEPhI»
Optical encoding during image registration in incoherent light

134. EVTIKHIEV N.N., KRASNOV V.V., STARIKOV S.N., CHERYOMKHIN P.A.
National research nuclear university «MEPhI»
Camera identification by using light spatial noise portrait of photosensor

135. KRASNOV V.V., RODIN V.G., SOLYAKIN I.V., STARIKOV S.N., CHERYOMKHIN P.A., SHAPKARINA E.A.
National research nuclear university «MEPhI»
Estimation of resolvable signal levels quantity for digital cameras

136. MOLODTSOV D.Yu., RODIN V.G., STARIKOV S.N.

National research nuclear university «MEPhI»
Object recognition in dispersive correlators using one lens scheme