

### Section 3-5. PHOTONICS AND INFORMATION OPTICS

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#### *Meeting 1*

Thursday, January 24, 2008, 10.00

Room 110

1. SYUY A.V.  
*Far Eastern State Transport University, Khabarovsk, Russia*  
**Record of the image noncoherent broadband radiation in niobate lithium crystals**
2. KRISHTOP V.V.  
*Far Eastern State Transport University, Khabarovsk, Russia*  
**Control of radiation spectrum**
3. VLASOV N.G., KULISH S.M.  
*Moscow State University of Technology "Stankin"*  
**Nonlinear data processing of interferogram (theory)**
4. VLASOV N.G., KULISH S.M.  
*Moscow State University of Technology "Stankin"*  
**Nonlinear data processing of interferogram (experiment)**
5. WOLF I.E., MALOV A.N., SITCHEVSKY A.V.<sup>1</sup>  
*Irkutsk Higher Air Force Engineer School (Military Institute), Russia,*  
*<sup>1</sup>Irkutsk State Medical University, Russia*  
**Subsurface defects detection method for transparent and semy-transparent objects**
6. KULCHIN Yu.N., VITRIK O.B., LANTSOV A.D.  
*Institute of Automation and Control Processes FEB RAS, Vladivostok, Russia*  
**Investigation of the 1-D deformation fields by using the tomographic fiber-optic measuring system**
7. ROMASHKO R.V., DI GIROLAMO S.<sup>1</sup>, KULCHIN Yu.N., KAMSHILIN A.A.<sup>1</sup>  
*Institute of Automation and Control Processes FEB RAS, Vladivostok, Russia,*  
*<sup>1</sup>University of Kuopio, Finland*  
**Detection threshold in adaptive interferometer based on multimode-fiber**
8. KOMOTSKII V.A., SOKOLOV Yu.M.  
*Peoples Friendship University of Russia, Moscow*  
**Investigation of optoelectronic sensor of angular displacements and vibrations**

#### *Meeting 2*

Thursday, January 24, 2008, 14.00

Room 110

9. CHEKHLOVA T.K., DAVYDOV A.A., TIMAKIN A.G.  
*Peoples Friendship University of Russia, Moscow*  
**Optical waveguide on the based sol-gel films**
10. YATSENKO Yu.P.<sup>1</sup>, MAVRITSKII A.O.

Moscow Engineering Physics Institute (State University),  
<sup>1</sup>Fiber Optics Research Center at Prohorov General Physics Institute of the RAS,  
Moscow

**D-scan measurement of nonlinear refractive index in fibers**

11. ZAVESTOVSKAYA I.N.<sup>1</sup>, MENKOVA N.A., KROHIN O.N.<sup>1</sup>  
Moscow Engineering Physics Institute (State University),  
<sup>1</sup>Lebedev Physical Institute of the RAS, Moscow  
**Nonlinear mechanisms in widegap semiconductors and dielectrics under femtosecond laser pulses action**
12. VITUKHNOVSKY A.G.<sup>1</sup>, ISAEV A.A.<sup>1</sup>, KOZLOVSKIY K.N.  
Moscow Engineering Physics Institute (State University),  
<sup>1</sup>Lebedev Physical Institute of the RAS, Moscow  
**Multielectron states realization in quantum dots under femtosecond and nanosecond optical pumping**
13. BASHKEEV A.A.  
Moscow Engineering Physics Institute (State University)  
**Entanglement dynamics of diatomic systems in the broadband thermostat field**
14. OZHENKO S.S., ELYUTIN S.O., MAIMISTOV A.I.  
Moscow Engineering Physics Institute (State University)  
**Coherent effects in thin film of metamaterial**
15. SOROKINA E.A., MAIMISTOV A.I.  
Moscow Engineering Physics Institute (State University)  
**Modulational instability in Bose-Einstein condensate in optical superlattice**
16. VAICHAS A.A.<sup>1</sup>, MALOV A.N., SHEVCHENKO E.V.<sup>1</sup>, NEUPOKOEVA A.V.  
Irkutsk Higher Air Force Engineer School (Military Institute), Russia,  
<sup>1</sup>Irkutsk State Medical University, Russia  
**Laser irradiation propagation in liquid photosensitive film**

Meeting 3

Friday, January 25, 2008, 10.00

Room 110

17. ESEPKINA N.A., IVANOV S.I., LAVROV A.P., MOLODYAKOV S.A.  
St.-Petersburg State Polytechnical University, Russia  
**Frequency scale calibration of acoustooptical radiosignals spectrometers**
18. KONNIK M.V., MANYKIN E.A., STARIKOV S.N.  
Moscow Engineering Physics Institute (State University)  
**Increasing linear dynamic range of commercial digital photocameras for optical-digital imaging systems**
19. BORODIN A.N., MALOV A.N., MARKIN V.A.  
Irkutsk Higher Air Force Engineer School (Military Institute), Russia,  
**Image improvement under condition external bright blinding source**
20. GRICHUK E.S., KUZMINA M.G.<sup>1</sup>, MANYKIN E.A.  
Moscow Engineering Physics Institute (State University),  
<sup>1</sup>Keldysh Institute of Applied Mathematics of the RAS, Moscow  
**Selective segmentation of images via oscillatory network method**
21. KAYTUKOV Ch.B.  
Scientific Technical Centre "Atlas", Moscow

**Calculation of the data for electronic lithograph during imitation of a holographic phase relief of an optical hologram**

22. KUZNETSOV A.S., ODINOKOV S.B.  
*Bauman Moscow State Technical University*  
**Optic-electronic system for registration of magnetic signalograms from carriers of videorecording**
23. BYKOVSKY A.Yu.<sup>1</sup>, EGOROV A.A.  
*Moscow Engineering Physics Institute (State University),  
<sup>1</sup>Lebedev Physical Institute of the RAS, Moscow*  
**Protected coding of the fuzzy logic scene model, formed in the agent memory by TV Frames**
24. ALEKSEEV A.M., PAVLOV A.V.  
*St.-Petersburg State University of Information Technologies, Mechanics and Optics, Russia*  
**On the realizability of non-monotonic thinking by fourier-holography technique: logic with exceptions**

*Meeting 4*

Friday, January 25, 2008, 14.00

Room 110

25. ROMASHKO R.V., KULCHIN Yu.N., KAMSHILIN A.A.<sup>1</sup>  
*Institute of Automation and Control Processes FEB RAS, Vladivostok, Russia,  
<sup>1</sup>University of Kuopio, Finland*  
**Multiplexing of dynamic reflective hologram in cubic photorefractive crystal**
26. NEUPOKOEVA A.V., MALOV A.N., BORODIN A.N.  
*Irkutsk Higher Air Force Engineer School (Military Institute), Russia*  
**Hologram recording by solid state diode-pumped laser irradiation**
27. ODINOKOV S.B., PAVLOV A.Yu.  
*Bauman Moscow State Technical University*  
**The analysis of schemes of devices for reception of security holograms with hidden image and their identifications in the optic-electronic vector-matrix processor**
28. ODINOKOV S.B., TSIGANOV I.K., BOVSUNOVSKIY I.V.  
*Bauman Moscow State Technical University*  
**Optical high resolution system of the stand for holograms produced with liquid crystal spatial light modulator**
29. ODINOKOV S.B., KOVALEV M.S., LUSHNIKOV D.S., MARKIN V.V.  
*Bauman Moscow State Technical University*  
**Research of influence of temperature changes of position of a sign in holographic collimator sight**
30. EVTIKHIEV N.N., ZLOKAZOV E.Yu., SIROTNIK S.I., STARIKOV R.S., STARIKOV S.N.  
*Moscow Engineering Physics Institute (State University)*  
**Study of binarization methods for amplitude holographic invariant correlation filters with linear phase factor**
31. EVTIKHIEV N.N., VOLODARSKY A.I., ZLOKAZOV E.Yu., STARIKOV R.S.  
*Moscow Engineering Physics Institute (State University)*

**Invariant correlation filters with linear phase factor: realization in the form of binary amplitude holograms for diffractive image correlator**

32. KONNIK M.V., RODIN V.G., STARIKOV S.N., TETEREVSKY E.E.  
*Moscow Engineering Physics Institute (State University)*

**Correlator of emissive spectra with computer generated hologram**