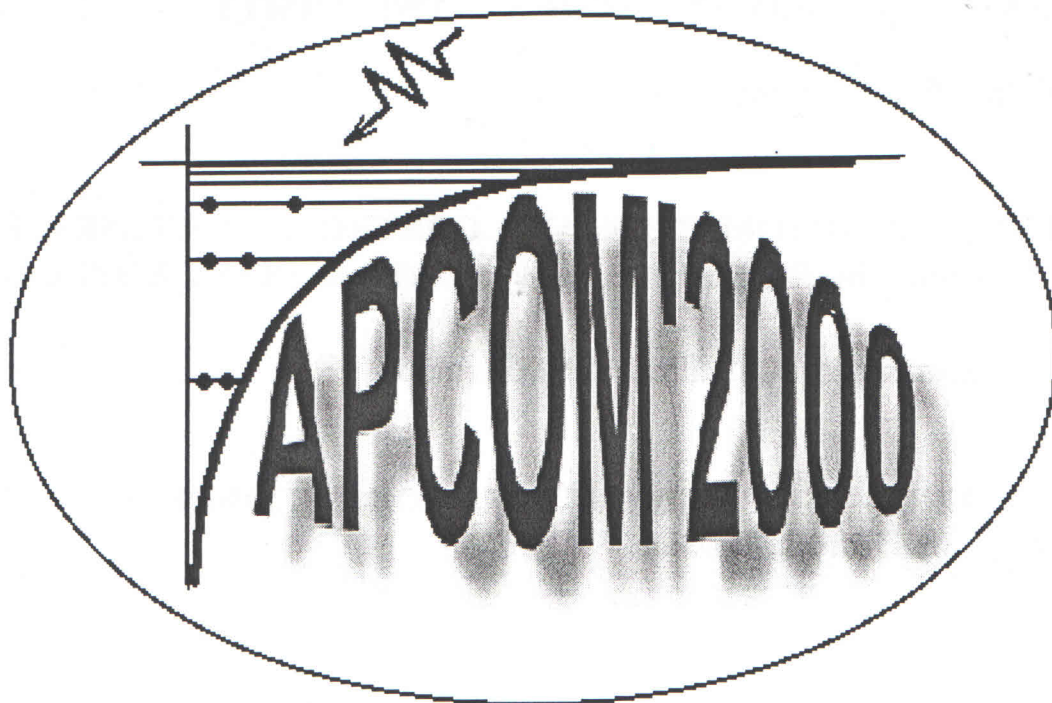


First Asia-Pacific Conference



**Fundamental problems of
opto – and microelectronics**

**ADVANCE
PROGRAM**

**Vladivostok, Russia
11 - 15 September, 2000**

ORGANIZED BY

FAR EASTERN STATE TECHNICAL UNIVERSITY, Vladivostok, Russia.

President: Prof. G.P. Turmov.

INSTITUTE FOR AUTOMATION AND CONTROL PROCESSES. Far Eastern Division of Russian Academy of Science (RAS), Vladivostok, Russia.

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Program of APCOM'2000 VLADIVOSTOK

11 September 2000 (Monday)

15:00-17:30	Registration	Building "B"
16:00-17:30	Campus Tour	Building "B"
17:30-19:30	Get Together	Building "B"

12 September 2000 (Tuesday)

08:30-09:30	Conference Registration	Pushkin Theater
10:00-10:45	Conference Opening	Pushkin Theater

Session 1. *Fiber-optical communication systems and fiber-optical sensors.*

Chairman: Prof. E.M. Dianov, Academician of Russian Academy of Science, Russia

The session will be presented at Pushkin Theater, Conference Hall.

ORAL PRESENTATION

1-O-U-02	VIBRATION SENSING WITH FIBER BRAGG GRATING Nobuaki Takahashi, Kazuto Yoshimura and Sumio Takahashi (National Defense Academy, Yokosuka, Japan)	11:00- 11:15
1-O-U-04	NUMERICAL STUDY OF THE APODIZATION PROFILE FUNCTIONS OF A LINEARLY CHIRPED FIBER BRAGG GRATING Qin Zixiong, Zeng Qingke, Feng Dejun, Liu Heliang, Liu Zhiguo, Yuan Shuzhong, Kai Guiyun, Dong Xiaoyi (Nankai University, Tianjin, P. R. China) Liu Ning, Liao Changjun, Liu Songhao (South China Normal University, Guangzhou, P. R. China)	11:15- 11:30
	<i>Coffee break</i>	11:30- 11:45
1-O-U-05	A NOVEL ACOUSTIC EMISSION FIBER OPTIC SENSOR BASED ON A SINGLE MODE OPTICAL FIBER COUPLER Rongsheng Chen, Gangtie Zheng, Tongyu Liu and Gerard Franklyn Fernando, (Cranfield University, Shrivenham, Swindon UK), Yanbiao Liao (Tsinghua University, Beijing, China)	11:45- 12:00
1-O-U-06	OPTIMIZATION-DESIGN OF MACH-ZEHNDER INTERFEROMETER AND ITS APPLICATION IN A FIBER BRAGG GRATING PHASE SENSOR DEMODULATION Dejun Feng, Zhiguo Liu, Weigang Zhang, Guiyun Kai, Xiaoyi Dong (Institute of Modern Optics, Nankai University, Tianjin, China)	12:00- 12:15
1-O-U-08	PHOTOINDUCED FIBER GRATINGS	12:15-

	S.A.Vasiliev, (General Physics Institute of the Russian Academy of Sciences, Moscow, Russia).	12:30
1-O-U-09	VECTOR FIELDS RECONSTRUCTION BY FEBER-OPTIC MEASURING NETWORK. Yu. N. Kulchin, O. B. Vitrik, O.T. Kamenev, R.V. Romashko (Far Eastern State Technical University, Vladivostok, Russia)	12:30-12:45
1-O-U-11	FIBER- OPTIC INTERFEROMETRIC METHOD FOR INVESTIGATION OF DEFORMATIONS OF BUILDING STRUCTURE. Yu. N. Kulchin, O. B. Vitrik, Ya. I. Vitrik, Yu. S. Petrov (Far Eastern State Technical University, Vladivostok, Russia.)	12:45-13:00
<i>Lunch break</i>		13:00-15:00
1-O-U-10	MODE DISPERSION DECREASE IN MULTIMODE FIBRE Mark R. Prokopovitch (Far East State University of Transportation, Khabarovsk, Russia)	15:00-15:15
1-O-U-12	AMPLITUDE FIBER-OPTIC SENSORS OF SEISMIC Kulchin Yu. N., Vitrik O. B., Petrov Yu. S., Perfilev V. G. (Far Eastern State Technical University, Vladivostok, Russia)	15:15-15:30
1-O-U-13	FIBER-OPTICAL INTELLIGENT SYSTEM FOR PHYSICAL FIELD MONITORING. Yuriy N. Kulchin, Oleg T. Kamenev, Yuriy S. Petrov (Far Eastern State Technical University, Vladivostok, Russia)	15:30-15:45
1-O-U-14	FIBER OPTIC SDH RING OF VLADIVOSTOK TELEPHONE NETWORK Oleg V. Kirichenko, Alexander V. Beleichev (Vladivostok Long Distance and Telephone Company. Vladivostok, Russia)	15:45-16:00
1-O-U-15	FIBER OPTIC TELECOMMUNICATION NETWORK BY OJSC ROSTELECOM ON FAR EAST OF RUSSIA Alexey R. Yashin (RTK-Primorye, Vladivostok, Russia) Alexandr A. Smirnov (OJSC Rostelecom, Khabarovsk, Russia)	16:00-16:15
1-O-U-16	THE FIBER ENDFACE SURFACE OPTICAL TESTING METHODS. Anton A. Dubrovin, Alexander N. Malov (Irkutsk State University, Irkutsk branch of the Laser Physics Institute of Siberian Division of the Russian Academy of Sciences, Irkutsk, Russia, Irkutsk, Russia.)	16:15-16:30
1-O-U-17	THE WATER-BLOCKING BUFFER GEL STRUCTURE VISUALIZATION FOR THE REAL FIBER CABLE AND THE INFLUENCE DISTRIBUTED DEFECTS TO SIGNAL LOSS. Yulia S. Zagaynova, Basil V. Levit, Dmitry B. Lipov, Alexander N. Malov. (Irkutsk State University, Rostelekom Co., Irkutsk branch of the Laser Physics Institute of Siberian Division of the Russian Academy of Sciences, Irkutsk, Russia.)	16:30-16:45
1-O-U-18	DATA FROM A DISTRIBUTED TEMPERATURE SENSOR BASED ON FIBER MEASURING NETWORKS AS THE REFERENCE INFORMATION FOR THE SPACE FOREST-FIRE MONITORING. Alexander V. Katkov, Alexander N. Malov, Nickolay P. Minko. (Solar-Earth Physics Institute of Siberian Division of the Russian Academy of Sciences, Irkutsk branch of the Laser Physics Institute of Siberian Division of the Russian Academy of Sciences, Irkutsk, Russia.)	16:45-17:00

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| 1-O-U-19 | SELFDEVELOPED COLLOIDAL RECORDING MEDIA FOR FIBER INTERCONNECTS AND HOLOGRAPHIC ELEMENTS FABRICATIONS.
Leonid E. Kruchinin, Igor V. Bogdan, Yulia S. Zagaynova, . Yury N. Vigovsky, Alexander N. Malov. (MeDia Ltd. Moscow, Russia, Irkutsk State University, Irkutsk branch of the Laser Physics Institute of Siberian Division of the Russian Academy of Sciences, Irkutsk, Russia.) | 17:15-
17:30 |
| 1-O-U-20 | THE STRESS-DEFORMED STATE OF THE OPTICAL FIBER DUE TO BUFFER GEL FREEZING.
Alexander V. Ovchinkin, Pavel I. Sinitca, Alexander N. Malov. (Irkutskenergo Corp., Irkutsk State University, Irkutsk branch of the Laser Physics Institute of Siberian Division of the Russian Academy of Sciences) | 17:30-
17:45 |

Session 2. *Optical information processing and holography.*

Chairman: Prof. Yu.N.Denisyuk, Academician of Russian Academy of Science, Russia

The session will be presented at main building Far Eastern State Technical University, Room A-302

INVITED LECTURE

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|----------|---|-----------------|
| 2-O-I-02 | 3-D IMAGE FORMATION BY THE SECOND HARMONIC GENERATED HOLOGRAM
Yu.N.Denisyuk (Ioffe Physico-Technical Institute, St.Petersburg, Russia),
A.Andreoni, M.Bondani, and M.A.C.Potenza (Milano-Universita, Milano, Italy) | 11:00-
11:30 |
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Coffee break

11:30-
11:45

ORAL PRESENTATION

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|----------|---|-----------------|
| 2-O-U-13 | OPTICAL INFORMATION PROCESSING USING ARRAYED-WAVEGUIDE GRATINGS AND ITS APPLICATION TO OPTICAL COMMUNICATION SYSTEMS.
Hiroyuki Tsuda (Keio University 3-14-1 Hiyoshi, Yokohama, Japan) | 11:45-
12:00 |
| 2-O-U-01 | INCOHERENT IMAGE CORRELATOR WITH KINOFORM AND ACOUSTO-OPTIC DEFLECTOR AS INPUT DEVICE.
Yury A. Bykovsky, Elbrus N. Eloev, Anatoly A. Markilov, Sergey N. Starikov, Mikhail V. Terekhov, Alexandr P. Chervonkin (Moscow Engineering Physics Institute, Moscow, Russia.) | 12:00-
12:15 |
| 2-O-U-06 | OPTOELECTRONIC PROCESSORS IN FORM OF HYBRID MICROCIRCUITS: ANALYSIS OF ARCHITECTURE VARIANTS.
N.N. Evtikhiev and R.S. Starikov, Moscow Engineering Physics Institute, Moscow, Russian federation) | 12:15-
12:30 |

2-O-U-03	APPLICATION OF INTERFERENTION-POLARIZING METHOD FOR RESEASCH OF OPTICAL CRYSTALS Sui Alexander V. (Far Eastern State Transport University, Khabarovsk, Russia)	12:30- 12:45
2-O-U-04	LASER RADIATION MODULATOR ON THE BASIS OF THE FABRI-PERO INTERFEROMETER WITH LOW MAGOR TENSION Konstantin G. Karas, Dmitrii S. Faleev (Far Eastern State Transport University, Khabarovsk, Russia)	12:45- 13:00
<i>Lunch break</i>		13:00- 15:00
2-O-U-05	POLARIZATION PROPERTIES OF TWO-WAVE INTERACTION ON A PHOTOREFRACTIVE GRATING OF DIFFUSION TYPE IN BTO CRYSTAL S. G. Chistyakov, R. V. Litvinov and S. M. Shandarov (State University of Control Systems and Radioelectronics, Tomsk, Russia)	15:00- 15:15
2-O-U-07	THE EXPERIMENTAL INSTALLATION FOR RESEARCH OF PROCESSES OF A RECORD AND READING OF THE HOLOGRAMS IN PHOTOPOLYMERS. Eugene S. Kovalenko, Sergey N. Sharangovich , Valeri V. Sysuev, Evgeny A. Dovolnov (Tomsk University of Control Systems and Radio Electronics, Tomsk, Russia)	15:15- 15:30
2-O-U-08	EXPERIMENTAL RESEARCH OF PROCESSES OF A RECORD OF THE HOLOGRAMS IN PHOTOPOLYMERS. Eugene S. Kovalenko , Sergey N. Sharangovich , Valeri V. Sysuev, Evgeny A. Dovolnov (Tomsk University of Control Systems and Radio Electronics, Tomsk, Russia)	15:30- 15:45
2-O-U-09	INTERFEROMETER ON PRISMS OF TOTAL REFLECTION Tomara N. Shabalina, Tatyana K. Tolkunova (Far Eastern State Transport University, Khabarovsk, Russia)	15:45- 16:00
<i>Coffee break</i>		16:00- 16:15
2-O-U-10	SIMULATION OF PROCESSES IN BIHARMONICAL LASER: PROGRAM AND PHYSICAL ASPECTS V.O. Ravodin, I.V. Izmajlov (Tomsk State University, Tomsk, Russia)	16:15- 16:30
2-O-U-11	SIMULATION OF SIGNAL ENCIPHERING BY MEANS OF NONLINEAR RING INTERFEROMETER AND DECODING I.V. Izmailov, M.A. Shulepov (Tomsk State University, Tomsk, Russia)	16:30- 16:45
2-O-U-12	MODELING OF PROCESSES OF FORMATION OF THE IMAGES IN OPTICAL-ELECTRONIC SYSTEMS Grudin B.N., Plotnikov V.S., Fischenko V.K.	16:45- 17:00
2-O-U-14	LIGHT POLARIZATION AND A SIGNAL/NOISE ATTITUDE. Igor B. Ivolga, Mark R. Prokopovitch (Far East State Transport University, Khabarovsk, Russia)	17:00- 17:15
2-O-U-15	WEIGHT FUNCTION OF THE VOLUMETRIC DYNAMIC HOLOGRAM IN A REVERSIBLE PHOTOCHROMATIC MEDIUM. Ivakhnik V.V., Nikonov V.I., Shilnikova E.V	17:15- 17:30

Session 3. *Lasers physics and nonlinear optics.*

Chairman: Prof. Sato Heihachi, Japan;

The session will be presented at main building Far Eastern State Technical University, Room A-307

INVITED LECTURES

3-O-I-04 PATTERN TRANSMITTING CO₂ LASER USING ARBITRARILY SHAPED COUPLING-HOLE MIRROR 11:00-11:30
Satoshi Tanaka and Heihachi Sato, (National Defense Academy, Yokosuka, Japan)

3-O-U-07 SILICA GLASS FOR PHOTONICS 11:30-12:00
A. J. Ikushima & K. Saito (Research Center for advanced Photon Technology, Toyota Technological Institute, Nagoya-city, Japan)

Coffee break 12:00-12:15

ORAL PRESENTATION

3-O-U-02 DYE-DOPED ORGANIC POLYMER THIN-FILM WAVEGUIDE LASER 12:15-12:30
Ryo Ohmori, Satoshi Tanaka, Heihachi Sato (National Defense Academy, Yokosuka, Japan),
Akira Watanabe, Seiichiro Hayakawa, (Mitsubishi Chemical Corporation, Japan)

3-O-U-03 EXTINCTION RATIO PERFORMANCE IN XGM WAVELENGTH CONVERSION BASED ON DIFFERENT SCHEMES 12:30-12:45
Huang Dexiu, Zhang Xinliang, Sun Junqiang, Liu Deming (Huazhong University of Science and Technology, Wuhan, Hubei)

3-O-U-05 F-P CAVITY SELF-Q-SWITCHED ERBIUM-DOPED FIBER LASER 12:45-13:00
Ding Lei, Xu Yanjun, Kai Guiyun, Yuan Shuzhong, Dong Xiaoyi (Nankai University, Tianjin, China),
Ge Chunfeng, (College of Precision Instrument & Optoelectronics, Tianjin, China)

Lunch break 13:00-15:00

3-O-U-14 POLARIZATION SELF-MODULATION EFFECT IN PHOTOCONDUCTIVE ELECTROOPTIC CRYSTALS 15:00-15:15
Alexei A. Kamshilin, (University of Joensuu, Joensuu, Finland)

3-O-U-01 THE BISTABILITY OF THE REFLECTION OF THE LIGHT WAVES AT AN INTERFACE BETWEEN LINEAR DIELECTRIC AND PHOTOREFRACTIVE CRYSTAL WITH APPLIED ELECTRIC FIELD. 15:15-15:30

S.M.Shandaroy (Univercity of Control Systems and Radioelectronics, Tomsk, Russia),

M.N. Frolova (Tomsk State Univercity, Tomsk, Russia)

3-O-U-06 STRUCTURE AND CHEMICAL COMPOSITION OF LiB₃O₅ SURFACES 15:30-15:45

V.V. Atuchin, V.G. Kesler, L.D. Pokrovsky (Institute of Semiconductor Physics, Novosibirsk, Russia),

A.M. Yurkin, N.A. Pylneva, I.A. Lisova (Institute of Mineralogy and Petrography, Novosibirsk, Russia)

3-O-U-08 FRACTAL PROCEDURE OF BUILDING PERCOLATING MEDIUM WITH QUASICRYSTAL SYMMETRY 15:45-16:00

U.A. Karugina, V.V. Yudin (Far Eastern State University, Vladivostok, Russia)

Coffee break

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| | | 16:00-16:15 |
| 3-O-U-09 | SPATIAL SUBHARMONICS OF A PHOTOREFRACTIVE GRATING IN $\text{Bi}_{12}\text{SiO}_{20}:\text{Cd}$
V.Yu. Krasnoperov, A.N. Dubrovin, S.M. Shandarov, R.V. Litvinov, S.N. Pitchenko (State University of Control Systems and Radioelectronics, Tomsk, Russia),
Yu.F. Kargin (Institute of General and Inorganic Chemistry of Russian Academy of Sciences, Moscow, Russia) | 16:15-16:30 |
| 3-O-U-10 | THREE-WAVE FORWARD MIXING IN A CUBIC PHOTOREFRACTIVE CRYSTAL WITH APPLIED AC EXTERNAL ELECTRIC FIELD
R.V. Litvinov, A.N. Werenickin (Tomsk State University of Control Systems and Radioelectronics, Tomsk, Russia) | 16:30-16:45 |
| 3-O-U-11 | NONLINEAR COMBINATIONS OF GRATINGS IN PHOTOREFRACTIVE CRYSTALS WITH A SQUARE-WAVE APPLIED FIELD
A.E. Mandel, S.M. Shandarov, V.Yu. Krasnoperov, N.V. Volkova (State University of Control System and Radioelectronics, Tomsk, Russia) | 16:45-17:00 |
| 3-O-U-12 | PROPAGATION OF GAUSSIAN BEAMS IN PHOTOREFRACTIVE CRYSTALS
M. V. Borodin, S. M. Shandarov, R. V. Litvinov (State University of Control Systems and Radioelectronics, Tomsk, Russia),
N. I. Nazhestkina, (University of Joensuu, Joensuu, Finland) | 17:00-17:15 |
| 3-O-U-13 | TWO-BEAM COUPLING ON REFLECTION VOLUME GRATINGS IN $\text{Bi}_{12}\text{TiO}_{20}$
E.Yu. Ageyev, S.M. Shandarov, S.Yu. Veretennikov, A.A. Mart'yanov, and V.A. Kartashov (State University of Control Systems and Radioelectronics, Tomsk, Russia),
A.A. Kamshilin and V.V. Prokofiev (University of Joensuu, Joensuu, Finland) | 17:15-17:30 |

Session 4. Low dimensional materials semiconductor microelectronics.

Chairman: Prof. S.V.Gaponov, Ass. Member RAS, Russia

The session will be presented at Institute for Automation and Control Processes, Conference hall

ORAL PRESENTATION.

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| 4-O-U-01 | STM-AES-RHEED STUDY OF Sb ADSORPTION ON $\text{Si}(111)-\text{In}(4\times 1)$ RECONSTRUCTION
D. Gruznev (Faculty of Engineering, Toyama, Japan and Institute for Automation and Control Processes, Vladivostok, Russia)
B.V. Rao, M. Mori, T. Tambo and C. Tatsuyama (Faculty of Engineering, Toyama, Japan) | 14:00-14:15 |
|----------|--|-------------|

4-O-U-02	In AND Cs CODEPOSITION ON Si(111) AT ROOM TEMPERATURE Azatyan S.G. (Institute for Automation and Control Processes, Vladivostok, Russia)	14:15-14:30
4-O-U-03	GROWTH OF Cr AND CrSi ₂ SUPERTHIN FILMS FROM THE STRIP SOURCE ON THE PURE Si(111) AND ON MODIFIED BY AN INTERFACTANT SUBSTRATES. <u>A.P. Milenin</u> , P.A. Man'kov, and N.I. Plusnin (Institute for Automation and Control Processes, Vladivostok, Russia)	14:30-14:45
4-O-U-04	THE INFLUENCE OF SURFACE PHASES ON ELECTROPHYSICAL PROPERTIES OF SILICON SURFACE <u>Dmitry A. Tsoukanov</u> , Serguei V. Ryjkov, Victor G. Lifshits (Institute for Automation and Control Processes, Vladivostok, Russia)	14:45-15:00
4-O-U-05	ELECTROMIGRATION OF IN ATOMS ON THE Si(111) SURFACE Andrey Tupkalo, Tatyana Kas'yanova (Institute for Automation and Control Processes, Vladivostok, Russia)	15:00-15:15
4-O-U-06	INVESTIGATION OF SILICON EPITAXIAL GROWTH ON Si(111)7x7 AND Si(111) $\sqrt{3}\times\sqrt{3}$ R30°-B SURFACES BY RHEED Vyacheslav V. Balashev, Vladimir V. Korobtsov, Andrey P. Shaporenko (Institute for Automation and Control Processes, Vladivostok, Russia)	15:15-15:30
4-O-U-07	EELS SPECTRA OF In/Si(111) SURFACE PHASES <u>Yu. V. Luniakov</u> , S. G. Azatyan and V. G. Lifshits (Institute for Automation and Control Processes, Vladivostok, Russia)	15:30-15:45
<i>Coffee break</i>		15:45-16:00
4-O-U-08	MAGNETIC PROPERTIES OF Fe ₇₀ Cr ₁₅ B ₁₅ SPINNING TAPES A.M.Frolov, A.G.Ageenko, G.S.Kraynova, V.V.Yudin (Far Eastern State University, Vladivostok, Russia)	16:00-16:15
4-O-U-09	SELF-ORGANIZATION OF REMAGNETIZATION PROCESSES IN WEAK FERROMAGNETS A.P.Kuz'menko, N.Yu.Sorokin, V.D.Tereshenko (Khabarovsk State University of Technology, Khabarovsk, Russian Federation)	16:15-16:30
4-O-U-10	IN SITU HALL MEASUREMENTS OF Cr AND Mg DISORDERED COVERINGS ON Si(111)7x7 Nickolai G. Galkin (Institute for Automation and Control Processes, Vladivostok, Russia and Far Eastern State Technical University, Vladivostok, Russia), Dmitrii L. Goroshko (Institute for Automation and Control Processes, Vladivostok, Russia), Sergei Ts. Krivoshchapov and Evgeniya S. Zakharova (Far Eastern State University, Vladivostok, Russia)	16:30-16:45
4-O-U-11	ELECTRONIC STRUCTURE, OPTICAL AND ELECTRICAL PROPERTIES OF Cr _x Fe _{1-x} Si ₂ THIN FILMS ON Si(111) Nickolai G. Galkin (Institute for Automation and Control Processes, Vladivostok, Russia and Far Eastern State Technical University, Vladivostok, Russia), Svetlana V. Vavanova, Aleksandr V. Konchenko and Andrei M. Maslov (Institute for Automation and Control Processes, Vladivostok, Russia)	16:45-17:00
4-O-U-12	OPTICAL FUNCTIONS OF Si(111)/CrSi ₂ /Si SYSTEM WITH QUANTUM DOTS Nickolai G. Galkin ^{1,2} (Institute for Automation and Control Processes,	17:00-17:15

Vladivostok, Russia and Far Eastern State Technical University,
Vladivostok, Russia)
Andrei M. Maslov (Institute for Automation and Control Processes,
Vladivostok, Russia)

- 4-O-U-13 MODELING OF THE DIELECTRIC FUNCTION OF THIN β -FeSi₂ 1715-
EPITAXIAL FILMS ON Si(111) 17:30
Andrei M. Maslov (Institute for Automation and Control Processes,
Vladivostok, Russia and Far Eastern State Technical University,
Vladivostok, Russia)
Nickolai G. Galkin (Institute for Automation and Control Processes,
Vladivostok, Russia and Far Eastern State Technical University,
Vladivostok, Russia)

13 September 2000 (Wednesday)

Session 2. *Optical information processing and holography.*

Chairman: Prof. Yu.N.Denisyuk, Academician of Russian Academy of Science, Russia

The session will be presented at main building Far Eastern State Technical University, Room A-302

- 2-O-U-16 DYNAMIC LIQUID CRYSTAL GRATING 9:00-
Mark R. Prokopovitch, Mary M. Ryabukhina (Far East State Transport 9:15
University, Khabarovsk, Russia)
- 2-O-U-17 THE ELECTROOPTICAL MODULATOR ON N-P-N TRANSITION 9:15-
Galina V. Kolodeznay, Eugene Z. Savin (Far East State University of 9:30
Transportation, Khabarovsk, Russia)
- 2-O-U-18 MUTUAL INFLUENCE OF NON-COHERENT OPTICAL FIELDS 9:30-
INSIDE OF PHOTOREFRACTIVE CRYSTAL 9:45
Yu.N.Kulchin, R.V.Romashko, O.T.Kamenev (Far Eastern State
Technical University, Vladivostok, Russia)
A.A.Kamshilin (University of Joensuu, Joensuu, Finland)
- 2-O-U-19 MODELING OF THE FEED-FORWARD NEURAL NETWORK 9:45-
SOLVING TOMOGRAPHIC PROBLEM 10:00
A. V. Panov (Institute for Automation and Control Processes, Russian
Academy of Sciences Far-Eastern Branch, Vladivostok, Russia)
- 2-O-U-20 OPTOMICROWAVE TECHNIQUES FOR RESPECTIVE 10:00-
VIDEOPULSE RADAR WITH SCANNING SPATIAL DIAGRAM 10:15
L.D. Bakhrak (NPO "Vega", Moscow, Russia)
- 2-O-U-21 Adaptive optics modal LC devices. 10:15-
S.P. Kotova^a, I.R. Guralnik^{a,b}, M.Yu. Loktev^{a,c}, A.F. Naumov^{a,d} 10:30
^a P.N. Lebedev Physical Institute of Russian Academy of Science,
Samara Branch, Samara, Russia
^b Samara State University, Russia,
^c Electronic Instrumentation, TU Delft, Netherlands;
^d University of Durham, Dept. of Physics & School of Engineering,
South Road Durham, DH1 3LE, UK
- 2-O-U-22 SPECTRAL DEPENDENCE ANTISIMETRICAL PHOTORECPONSE 10:30-

	SENDWICHLIKES STRUCTURE METAL-FERROELECTRIC ON BASIS LiNbO_3	10:45
	G.G. Zdorovtsev, V.I. Ivanov, S.V. Klimentyev. (Far Eastern State Transport University, Russia, Khabarovsk)	
2-O-U-23	OPTOELECTRONIC NEURAL-LIKE SYSTEM ON THE BASIS OF A MATRIX OF PHOTOELECTRIC CELLS	10:45-11:00
	Kulchin Yu. N., Denisov I. V., Obuh V. F., Kamenev O. T. (Far Eastern State Technical University, Vladivostok, Russia.)	
	<i>Coffee break</i>	11:00-11:15
2-O-U-24	As_2S_3 - As_2Se_3 FILMS TECHNOLOGY FOR HOLOGRAPHY AND OPTOELECTRONICS.	11:15-11:30
	Ivan I. Burdian, Igor S. Feshchenko, Yury N. Vigovsky, Valery S. Feshchenko (Dnestr State University, Tiraspol, Moldova, MeDia Ltd. Moscow, Russia).	
2-O-U-25	OPTICAL IMAGE PROCESSING BY MEANS OF NONPARAXIAL TALBOT EFFECT.	11:30-11:45
	Valeriy S. Feshchenko, Alexander N. Malov, Olesya A. Rogodjnikova, Yury N. Vigovsky, (Dnestr State University Tiraspol, Moldova, MeDia Ltd. Moscow, Russia, Irkutsk branch of the Laser Physics Institute of Siberian Division of the Russian Academy of Sciences, Irkutsk, Russia)	
2-O-U-26	SPATIAL FILTER FOR SOLAR MAGNITOGRAH.	11:45-12:00
	Anton S. Petrov, Artur N. Borodin. (Solar-Earth Physics Institute of Siberian Division of the Russian Academy of Sciences, Irkutsk, Russia).	
2-O-U-27	SCALED SPECKLOGRAMS APPLICATIONS FOR IMAGE PROCESSING.	12:00-12:15
	Sergey N. Malov, (Irkutsk branch of the Laser Physics Institute of Siberian Division of the Russian Academy of Sciences, Irkutsk, Russia).	

Session 3. *Lasers physics and nonlinear optics.*

Chairman: Prof. Sato Heihachi, Japan;

The session will be presented at main building Far Eastern State Technical University, Room A-307

3-O-U-15	PARAMETRICAL THERMAL IMAGE UPCONVERTER WITH AN UNMONOCHROMATIC PUMPING	9:00-9:15
	Vladimir I. Troilin (Far Eastern State Transport University, Khabarovsk, Russia)	
3-O-U-16	GAS DISCHARGE LASER CAPILLARIES OPTODYNAMICS: RADIATION STABILIZATION	9:15-9:30
	S.I. Shishov (Khabarovsk State Technical University, Khabarovsk, Russia)	
3-O-U-17	PROCESSES OF PHOTOREFRACTION IN NONLINEAR CRYSTALS	9:30-9:45
	Yurii H. Karpets (Far Eastern State Transport University, Khabarovsk,	

Russia)

- 3-O-U-18 ABSORPTION SPECTRUMS OF POLY(VINYL) ALCOHOL FILMS 9:45-
IN THE FIELD OF VACUUM ULTRAVIOLET 10:00
Liana A. Trophimova, Peter A. Babin, Emma I. Katkova, Alla P.
Fedorova (Khabarovsk State Pedagogical University, Khabarovsk,
Russia.)
- 3-O-U-19 PHOTOREFRACTION PROCESSES IN NONLINEAR CRYSTALS 10:00-
Ju. M. Karpets, N. V. Marchencov (Far Eastern State Transport 10:15
University, Khabarovsk, Russia)
- 3-O-U-20 COORDINATE DEPENDENCE OF PHOTO-E.M.F. IN ALLOYED 10:15-
CRYSTAL LiNbO_3 WITH ELECTRODES OF DIFFERENT METALS 10:30
V.I. Ivanov, U.M. Karpets, S.V. Klimentyev (Far Eastern State
Transport University, Khabarovsk, Russia)
- 3-O-U-21 FOUR – RAY REFLECTION EFFECT 10:30-
L. V. Alekseeva, L.V. Povkh, A.V. Korostelev, P.G. Pasko 10:45
(Far Eastern State Transport University, Khabarovsk, Russia)
- 3-O-U-22 FULL REFLECTION OF RAYS IN POSITIVE CRYSTAL 10:45-
Moury, V. I. Stroganov (Far Eastern State Transport University, 11:00
Khabarovsk, Russia)
- Coffee break* 11:00-
11:15
- 3-O-U-23 GENERATION OF SECONDARY HARMONIC IN GLASS AND 11:15-
WAVE GUIDES 11:30
V. A. Maximenko (Far Eastern State Transport University, Khabarovsk,
Russia)
- 3-O-U-24 INTERRELATION OF NONLINEAR OPTICAL AND 11:30-
ELECTROOPTICAL EFFECTS 11:45
I. V. Rapoport (Far Eastern State Transport University, Khabarovsk,
Russia)
- 3-O-U-25 NEW OPTICAL CRYSTALS FOR OPTICAL ELECTRONICS 11:45-
I. Kidyarov, P. G. Pasko, K. Rudoy (Far Eastern State Transport 12:00
University, Khabarovsk, Russia)
- 3-O-U-26 GEOMETRICAL OPTICS OF ANISOTROHIC MEDIUMS 12:00-
V. I. Stroganov (Far Eastern State Transport University, Khabarovsk, 12:15
Russia)
- 3-O-U-27 TRANSFORMATION OF THERMAL IMAGES OF OBJECTS IN 12:15-
NONLINEAR CRYSTALS INTO VISIBLE SPECTRUM 12:30
V. I. Stroganov (Far Eastern State Transport University, Khabarovsk,
Russia)

Session 4. Low dimensional materials semiconductor microelectronics.

Chairman: Prof. S.V.Gaponov, Ass. member RAS, Russia
**INSTITUTE FOR AUTOMATION AND CONTROL PROCESSES,
CONFERENCE HALL**

- 4-O-U-14 OPTICAL AND PHOTOELECTRIC PROPERTIES OF THIN Mg_2Si 9:00-

- FILMS ON Si(111) 9:15
 Nikolai G. Galkin (Institute for Automation and Control Processes, Vladivostok, Russia and Far Eastern State Technical University, Vladivostok, Russia),
 Svetlana V. Vavanova, Aleksandr V. Konchenko, Andrei M. Maslov (Institute for Automation and Control Processes, Vladivostok, Russia)
 Vyacheslav O. Polyarnyi (Far Eastern State University, Vladivostok, Russia)
- 4-O-U-15 IN SITU DIFFERENTIAL REFLECTANCE SPECTROSCOPY OF IN SURFACE PHASES ON Si(111) 9:15-9:30
 Sergei A. Dotsenko (Institute for Automation and Control Processes, Vladivostok, Russia and Far Eastern State University, Vladivostok, Russia),
 Nikolai G. Galkin (Institute for Automation and Control Processes, Vladivostok, Russia and Far Eastern State Technical University, Vladivostok, Russia),
 and Victor G. Lifshits (Institute for Automation and Control Processes, Vladivostok, Russia and Far Eastern State University, Vladivostok, Russia)
- 4-O-U-16 PHOTOELECTRIC PROPERTIES OF Si(111)/ β -FeSi₂ HETEROSTRUCTURES ON n- AND p-TYPE SILICON SUBSTRATES 9:30-9:45
 Nikolai G. Galkin (Institute for Automation and Control Processes, Vladivostok, Russia and Far Eastern State Technical University, Vladivostok, Russia),
 Vyacheslav O. Polyarnyi (Far Eastern State University, Vladivostok, Russia),
 and Aleksandr V. Konchenko (Institute for Automation and Control Processes, Vladivostok, Russia),
- 4-O-U-17 ULTRAHIGH VACUUM SYSTEM FOR IN SITU HALL HIGH TEMPERATURE MEASUREMENTS 9:45-10:00
 Nikolai G. Galkin (Institute for Automation and Control Processes, Vladivostok, Russia and Far Eastern State Technical University, Vladivostok, Russia),
 Dmitrii L. Goroshko, Andrei E. Menshikh, , Aleksandr V. Konchenko¹, Andrei M. Maslov¹, Aleksandr S. Gournik¹ and Svetlana V. Vavanova¹ (Institute for Automation and Control Processes, Vladivostok, Russia)
 Vitalii A. Ivanov (and Far Eastern State Technical University, Vladivostok, Russia)
- 4-O-U-18 POLARITONS IN SEMICONDUCTOR THIN FILMS ON METAL SUBSTRATE. 10:00-10:15
 Vinogradov E.A. (Institute of Spectroscopy Rus.Ac.Sci, Troitsk, Moscow Region, Russia)
- 6-O-U-01 INFORMODYNAMIC ANALYSIS OF PERCOLATION ON HIGH QUASICRYSTAL SYMMETRIES 10:15-10:30
 Yudin V.V., Lyubchenko E.A., Chudnova O.A. (Far Eastern State University, Vladivostok, Russia)
- 6-O-U-02 SUPERPERCOLATION FRACTAL STRUCTURES OF AMORPHOUS PLANAR ENVIRONMENTS 10:30-10:45
 T.A.Pisarenko, V.V.Yudin (Far Eastern State University, Vladivostok, Russia)
- 6-O-U-03 MESOSTRUCTURE ADAPTATION METALLIC 10:45-

Session 1. *Fiber-optical communication systems and fiber-optical sensors.*

Chairman: Prof. E.M. Dianov, Academician of Russian Academy of Science, Russia

The session will be presented at main building Far Eastern State Technical University, Room A-307

POSTER PRESENTATION (15:00-15:45)

- 1-P-U-01 A NOVEL BENDING SENSOR BASED ON CHIRPED FIBER BRAGG GRATING
Xin-Yong Dong, Gui-Yun Kai, Zhi-Guo Liu, Xiao-Yi Dong (Nankai University, Tianjin, P.R.China)
- 1-P-U-03 THE CORRELATIVE ANALYSES OF TEMPERATURE AND STAIN OF THE FIBER GRATING SENSORS
Weigang Zhang, Qida Zhao, Dejun Feng, Zhiguo Liu, Guiyun Kai, Xiaoyi Dong (Nankai University, Tianjin, China)
- 1-P-U-07 Selective excitation of guided modes of a planar waveguide in endface coupling configuration
P.Kuznetsov, A.Pfarger, V.Shandarov (State University of Control Systems and Radioelectronics, Tomsk, Russia)

EVENING EVENTS

16:00- 17:30 CONCERT FOR PARTICIPANT (PUSHKIN THEATER)

18:00-20:00 BANQUET

14 September 2000 (Thursday)

10:00 – 11:00 FINAL CEREMONY OF THE CONFERENCE

Dije
HOLDING

ХОЛДИНГОВАЯ КОМПАНИЯ "ДИЖЕ"

г. Владивосток, ул. Нерчинская, 10 оф. 516 E-mail: dije_holding@usa.net
пейджер: 51-52-53 для аб. №101398

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