

DOC - 2010 PROGRAMME

Friday, April 23

Registration

8:15 – 9:00

Opening Session

HALL 1

Chairman: A.Vembris

1	A.Vembris	CHAIRMAN OF THE CONFERENCE	9:00 – 9:10
2	A.Sternberg	SPEECH BY DIRECTOR OF INSTITUTE OF SOLID STATE PHYSICS	9:10 – 9:20

Plenary Session

HALL 1

1	Prof. S. Svanberg	LASERLAB EUROPE CONCEPTS AND WORKING MODES	9:20 – 10:00
2	Prof. S. Svanberg	ENVIRONMENTAL AND MEDICAL APPLICATIONS OF LASER SPECTROSCOPY	10:00 – 11:00

Coffee Break

11:00 – 11:20

Plenary Session

HALL 1

1	Prof. K. Svanberg	PHOTONICS IN MEDICINE - DETECTION AND TREATMENT OF MALIGNANT TUMOURS IN MEN	11:20 – 12:45
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Lunch

12:45 – 14:15

Biophotonics

HALL 1

Chairman: E. Kviesis-Kipge

1	J.Lesins, A.Lihachev, J.Spigulis	SKIN AUTOFLUORESCENCE RECOVERY AFTER PHOTBLEACHING	14:15 – 14:30
2	E.R.Tkaczyk, A.H.Tkaczyk, K.Mauring, G.D.Luker, J.R.Baker, T. B.Norris	NONINVASIVE FLOW CYTOMETRY WITH MULTIPHOTON APPROACHES	14:30 – 14:45

Vision Science 1

HALL 1

Chairman: E. Kviesis-Kipge

1	M.Orlovska, K.Blushs, M.Rascevska	DOES EYE TRACKING SUPPORT THE USE OF FLESCH-KINCAID FORMULA OF READABILITY IN LATVIAN?	14:45 – 15:00
2	A.Skripko	METHOD OF DETECTING A DECREASED DENSITY OF MACULAR PIGMENT IN VIVO	15:00 – 15:15
3	A.Stepanovs, G.Ikaunieks, K.Ozola, M.Ozolins	INFLUENCE OF TINTED SPECTACLE LENSES ON INTRAOCULAR STRAY LIGHT	15:15 – 15:30

Coffee Break

15:30 – 15:45

Atomic and Molecular Spectroscopy

HALL 1

Chairman: L. Kalvans

1	<u>L.Busaite</u>	TRANSIT RELAXATION MECHANISMS IN MODELS OF COHERENT ATOMIC EXCITATION	15:45 – 16:00
2	<u>J.Ulmanis</u> , N.N.Bezuglov, K.Miculis, M.Bruvelis, E.Saks, V.Valle, A.Ekers	LASER DRESSED STATE INTERFERENCE IN ATOMS INTERACTING WITH COHERENT LIGHT	16:00 – 16:15
3	<u>V.Zuters</u> , O.Docenko, M.Tamanis, R.Ferber, A.Kruzins	HIGH RESOLUTION SPECTROSCOPY OF THE ELECTRONIC GROUND STATE OF THE RBCS MOLECULE	16:15 – 16:30

Laser applications

HALL 1

Chairman: L. Kalvans

1	<u>M.Malinauskas</u> , A.Zukauskas, G.Bickauskait, M.Rutkauskas, D.Paipulas, V.Purlys, R.Gadonas	MULTI-PHOTON POLYMERIZATION STRUCTURING RESOLUTION ENHANCEMENT: OPTIMIZING EXCITATION CONDITIONS AND MATERIAL LOCAL RESPONSE	16:30 – 16:45
2	<u>D.Paipulas</u> , V.Kudriasov, K.Kurselis, M.Malinauskas, V.Sirutkaitis	REFRACTIVE INDEX MODIFICATIONS INDUCED IN FUSED SILICA WITH HIGH REPETITION RATE FEMTOSECOND LASER PULSES	16:45 – 17:00
3	<u>V.M.Stadnytskyi</u> , V.V.Garashenko	LASER-INDUCED INCANDESCENCE OF CARBON MICROPARTICLES IN POLYMERIC MATRIXES	17:00 – 17:15
4	<u>J.Alnis</u>	FUTURE OF PRECISION TIME KEEPING: STABLE LASER FREQUENCY DISTRIBUTION THROUGH THE FIBER-OPTICAL NETWORKS	17:15 – 17:30
5	<u>J.Butikova</u> , D.Jakovlevs, I.Tale	SOME ASPECTS OF SEM ANALYSIS OF ABLATED TILES IN ASDEX UPGRADE TOKAMAK	17:30 – 17:45

Welcome Party

18:00 –

Saturday, April 24**Plenary Session**

HALL 1

1	Prof. W. Demtroeder	APPLICATIONS OF LASERS IN SCIENCE AND TECHNOLOGY	10:00 – 11:30
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Coffee Break

11:30 – 11:45

Plenary Session

HALL 1

1	Prof. J. Spigulis	LASER TECHNOLOGIES FOR SKIN ASSESSMENT	11:45 – 12:30
2	D. Chorvat	MULTISPECTRAL IMAGING AND TIME-RESOLVED FLUORESCENCE SPECTROSCOPY: NEW TOOLS FOR STUDY OF ENDOGENOUS FLUORESCENCE IN LIVING CELLS AND TISSUES	12:30 – 13:15

Lunch

13:15 – 14:15

Vision Science 2

HALL 2

Chairman: G.Ikaunieks

1	<u>V.Karitans</u> , <u>M.Ozolins</u>	METHODS OF COMPENSATING EYE MOVEMENTS IN ADAPTIVE OPTICS SYSTEMS	14:15 – 14:30
2	<u>K.Blushs</u> , <u>R.Paeglis</u> , <u>A.Atvars</u> , <u>A.Spunde</u> , <u>A.Rudzitis</u>	EYE TRACKING: DO NOT TRACK THE BALL	14:30 – 14:45
3	<u>S.Fomins</u> , <u>N.Rileyeva-Piskura</u>	CHROMATIC AFTEREFFECT STRENGTH FOR DIFFERENT SHAPES	14:45 – 15:00
4	<u>S.Slica</u> , <u>G.Ikaunieks</u>	EFFECT OF YELLOW FILTERS ON VISION	15:00 – 15:15
5	<u>L.Zarina</u> , <u>S.Fomins</u>	COLLINEAR SUPPRESSION IN TEXTURE SEGMENTATION FOR TEMPORALLY MODULATED STIMULI	15:15 – 15:30
6	<u>I.Timrote</u> , <u>G.Krumina</u>	INTRAOCULAR PRESSURE MEASUREMENTS WITH DIFFERENT TONOMETRY METHODS	15:30 – 15:45

Coffee Break

15:45 – 16:00

Nonlinear Optics

HALL 2

Chairman: J.Ulmanis

1	<u>E.Nitiss</u> , <u>M.Rutkis</u> , <u>O.Viltis</u>	CORONA DISCHARGE OPTIMIZATION FOR NONLINEAR OPTICAL POLYMER POLING	16:00 – 16:15
2	<u>A.Tokmakov</u> , <u>M.Rutkis</u> , <u>A.Ernstsons</u> , <u>V.Kampars</u>	INDANE DERIVATIVES MOLEKULAR HYPERPOLARIZABILITY MEASUREMENT BY HYPER RAYLEIGH SCATTERING WITH P-NITROANILINE AS EXTERNAL STANDART	16:15 – 16:30
3	<u>E.M.Buyanovskaya</u> , <u>S.A.Kozlov</u>	LAWS OF GENERATION OF RADIATION ON COMBINATIONAL FREQUENCIES WITHIN THE INTERACTION OF COUNTER-PROPAGATING FEW-CYCLE PULSES IN NONLINEAR DIELECTRIC MEDIA	16:30 – 16:45
4	<u>K.S.Koreshkov</u> , <u>S.A.Kozlov</u>	INTERACTION OF COUNTER PROPAGATING PARAXIAL FEW CYCLE LIGHT PULSES IN NONLINEAR DIELECTRIC MEDIA	16:45 – 17:00
5	<u>A.Supe</u> , <u>J.Porins</u> , <u>G.Ivanovs</u>	MEASUREMENTS OF NONLINEAR COEFFICIENT IN OPTICAL FIBER	17:00 – 17:15

Communications

HALL 2

Chairman: J.Ulmanis

1	<u>O.Ozolins</u> , <u>G.Ivanovs</u>	ESTIMATION OF OPTICAL FILTER NARROWING IN HIGH SPEED WDM SYSTEMS	17:15 – 17:30
2	<u>A.Udalcovs</u> , <u>V.Bobrovs</u>	ESTIMATION OF COMBINED NRZ-DUOBINARY-NRZ HDWDM SYSTEM PERFORMANCE	17:30 – 17:45

Coffee Break

17:45 – 18:00

Poster Session

18:00 – 20:00

Leadership workshop (SPIE and OSA members and invited guests)

19:00 – 20:00

Sunday, April 25

Optical Materials

HALL 2

Chairman: A.Vembris

1	<u>B.Niparte</u> , E.Laizane, D.Gustina	PHOTOISOMERIZATION PROCESSES OF THIN – LAYER FILMS OF AZOBENZENE COMPOUNDS	9:30 – 9:45
2	<u>M.Indrikova</u> , J.Latvels, K.Pudzš, P.Pastors, V.Kampars	PHOTOELECTRICAL PROPERTIES OF THIN FILMS OF INDANDIONE DERIVATIVES	9:45 – 10:00
3	<u>J.Latvels</u> , M.Indrikova, K.Pudzš, P.J.Pastors, V.Kampars	NEW INDANDIONE TYPE ORGANIC MATERIALS FOR SOLAR CELLS	10:00 – 10:15
4	<u>K.Pudzš</u> , A.Vembris, M.Porozovs, J.V.Grazulevicius	STUDIES OF PHYSICSL PROPERTIES OF CARBAZOLE DERIVATIVE MATRIX FOR ELECTROLUMINISCENCE SYSTEMS	10:15 – 10:30
5	<u>J.Aleksejeva</u> , J.Teteris	VOLUME GRATING RECORDING IN ACRILATE BASED PHOTOPOLYMERS	10:30 – 10:45
6	<u>G.Doke</u> , J.Grube, A.Sarakovskis, M.Springis	UP-CONVERSION LUMINESCENCE OF ERBIUM DOPED SODIUM LANTHANUM FLUORIDE	10:45 – 11:00
	<u>D.Jakimovica</u> , L.Trinkler, B.Berzina	SPECTRAL CHARACTERIZATION OF ALUMINA POWDERS AT LOW TEMPERATURE	11:00 – 11:15
7	<u>L.Shirmane</u> , A.Kotlov, W.Lojkowski, A.I.Popov, V.Pankratov	LUMINESCENCE PROPERTIES OF YAG:CE NANOCRYSTALS IN VUV RANGE	11:15 – 11:30

Coffee Break

11:30 – 11:50

Closing Session

HALL 2

Chairman: A.Vembris

1	A.Atvars	AN OVERVIEW OF A PROBLEM SOLVING METHODOLOGY TRIZ	11:50 – 12:15
2	A.Vembris	CLOSING REMARKS	12:15 – 12:30

Excursion

12:30 –

Poster Session

18:00 – 20:00

<u>A.Alesenkoy</u> , K.Kurselis	MICROMACHINING OF STAINLESS STEEL WITH HIGH REPETITION RATE FEMTOSECOND LASER PULSES	Po-1
<u>K.Balskus</u>	FORMATION OF HOLES IN THIN METAL LAYER BY FEMTOSECOND PULSES	Po-2
<u>Z.Alute</u> , L.Grigorjeva, D.Millers	LUMINESCENCE OF TITANIUM, INDIUM AND ZINC OXIDES DOPED WITH EU^{3+}	Po-3
<u>P.Danilevicius</u> , M.Malinauskas, A.Zukauskas, G.Bickaускаite, V.Purlys, V.Bukelskiene, R.Gadonas	LASER 3D MICRO/NANOFABRICATION OF POLYMERS FOR TISSUE ENGINEERING APPLICATIONS	Po-4
<u>I.Diebele</u> , A.Kempele, J.Spigulis	ESTIMATION OF MELANIN AND HEMOGLOBIN IN PIGMENTED SKIN TISSUE WITH THE HYPERSPETRAL IMAGING METHOD	Po-5

<u>E.Kviesis-Kipge</u> , E.Curkste, J.Spigulis, L.Eihvalde	DEVELOPMENT OF CAPILLARY REFILL DEVICE USING TWO WAVELENGTHS	Po-6
<u>I.Saknite</u> , D.Jakovels, J.Spigulis	DETERMINATION OF BILIRUBIN DISTRIBUTION IN SKIN BY MULTI-SPECTRAL IMAGING	Po-7
<u>J.Zaharans</u> , E.Zaharans, E.Kviesis-Kipge	DEVELOPMENT OF OPTICAL WIRELESS PHOTOPLETHYSMOGRAPHY SENSOR PROBE	Po-8
<u>G.Ikaunieks</u> , L.Ozolina, S.Slica	OPTICAL ILLUSIONS, CONTRAST SENSITIVITY AND LATERAL INHIBITION	Po-9
<u>I.Jonane</u> , A.Podins	PHOTOLUMINESCENCE OF NEUTRON - IRRADIATED LIF SINGLE CRYSTALS	Po-10
<u>V.Purlys</u> , K.Belazaras, A.Zukauskas, M.Rutkauskas, M.Malinauskas, R.Gadonas	THREE-DIMENSIONAL MICROMETER SCALE POLYMERIC DEVICES OF PHOTONICS AND MICROOPTICS	Po-11
<u>K.Stankeviciute</u>	FEMTOSECOND LASER INDUCED PLASMAS SPECTROSCOPIC ANALYSIS	Po-12
V.Kascejevs, A.Ekers, J.Ulmanis, Z.Krumina, <u>V.Valle</u>	ACCURATE REALIZATION OF MACH-ZEHNDER INTERFEROMETER VIA DRESSED STATE INTERFERENCE IN ATOMIC BEAM SPECTROSCOPY	Po-13
<u>E.Laizane</u> , D.Gustina, K.Kundzins, I.Muzikante, J.Teteris	OPTICALLY INDUCED SURFACE RELIEF GRATING OF PMMA FILMS WITH AZOBENZENE MOLECULES	Po-14
<u>S.Puzinas</u> , R.Karpicz, V.Gulbinas	EXCITED STATES AND THEIR RELAXATION IN MULTIFUNCTIONAL COMPOUNDS	Po-16
<u>D.Peckus</u> , A.Devizis, V.Gulbinas	EXCITON-EXCITON ANNIHILATION AND CHARGE CARRIER GENERATION IN FLUORINE BASED CONJUGATED POLYMERS	Po-17
<u>J.Kiskis</u> , V.Gulbinas, D.Kuciauskas, G.A.Caputo	EXCITON ANNIHILATION AND ENERGY TRANSFER DYNAMICS IN SELF-ASSEMBLED PEPTIDE- PORPHYRIN COMPLEXES	Po-18
<u>G.Kunakova</u> , J.Bukins, P.Birjukovs, J.D.Holmes, D.Erts	ELECTRICAL CHARACTERIZATION OF V-VI GROUP SEMICONDUCTOR NANOWIRE ARRAYS FOR OPTICAL APPLICATIONS	Po-19
<u>R.Laasner</u> , N.Fedorov, E.Feldbach, R.Grigonis, S.Guizard, M.Kirm, V.Nagirnyi, V.Sirutkaitis	INTERACTION OF FRENKEL EXCITONS IN $CDWO_4$ UNDER EXCITATION BY FS-LASER PULSES	Po-20