XI KHARKIV YOUNG SCIENTISTS CONFERENCE ON RADIOPHYSICS, ELECTRONICS, PHOTONICS AND BIOPHYSICS

CONFERENCE PROGRAM

29 November – 1 December 2011
Kharkiv, Ukraine

PLENARY SESSION

1st Conference Hall Tuesday 29.11.2011 9:00 – 12:30

9:00– 9:15 Opening Ceremony
ORGANIZERS WELCOME NOTE: Dr. **Alexey Kuleshov**, *YSC-2011 Programm committee chairman*.
TOP ADMINISTRATION WELCOME NOTE: Academician of NAS Ukraine **V. M. Yakovenko**, Director of IRE NAS Ukraine.

9:15– 10:00 THE PLASMA ANTENNA - NOW YOU SEE IT, NOW YOU DON'T
Prof. I. Alexeff, *University of Tennessee, Knoxville, USA*

10:00– 10:30 PHOTON MAYHEM: USING LIGHT FOR STRUCTURAL AND FUNCTIONAL ASSESMENT OF BIOLOGICAL TISSUES
Prof. A. Vitkin, *University of Toronto (Medical Biophysics and Radiation Oncology); Ontario Cancer Institute; Princess Margaret Hospital, Toronto, Canada*

11:00– 11:30 CROSS-LAYER DESIGN OF SMART ANTENNA SYSTEMS
Dr. N. Buris, *President NEBENS, Deer Park, IL, USA*

11:30– 12:00 ELECTROMAGNETIC ANALYSIS OF NANOSTRUCTURES IN THE MILLIMETER AND OPTICAL RANGES
Prof. A. Lerer, *School of Physics, Department of Applied Electrodynamics and Computer Modeling, Rostov-on-Don, Russia*

12:00– 12:30 IRE DEVELOPMENT OF RADAR AND REMOTE SENSING SYSTEM IN MILLIMETER RANGE
Prof. V. B. Razskazovskiy, *Institute for Radiophysics and Electronics of NAS of Ukraine, Kharkiv, Ukraine*

SESSION: ELECTROMAGNETICS

1st Conference Hall — Tuesday **29.11.2011** **14:00 – 16:30**

1.	V.S. Bulygin	AXIALLY SYMMETRIC DIFFRACTION BY A DIELECTRIC BODY OF REVOLUTION	*Institute for Radiophysics and Electronics of NAS of Ukraine*
2.	R. Chernobrovkin B. Bekir	EPR SPECTROMETER RESONANCE CELL FOR INVESTIGATION HIGH CONDUCTIVITY SAMPLES	*Institute for Radiophysics and Electronics of NAS of Ukraine*
3.	R.N. Denisyuk B.A. Murmuzhev	WAVE PHENOMENA IN FIVE-LAYER METAL-DIELECTRIC STRUCTURES	*Kotel'nikov Institute of Radio Engineering and Electronics RAS*
4.	R. Golovashchenko O.V. Goroshko	STUDY OF CHARACTERISTICS OF COUPLED SEMICIRCULAR-SHAPED RESONATORS	*Institute for Radiophysics and Electronics of NAS of Ukraine*
5.	M.S. Kharchenko A.A. Barannik	RADIATION LOSS IN HEMISPHERICAL DIELECTRIC RESONATOR ON IMPEDANCE PLANE	*Institute for Radiophysics and Electronics of NAS of Ukraine*
6.	A.A. Kryvchikova	ELECTRODYNAMIC PROPERTIES OF NONSTATIONARY AND STEADY-STATE FIELDS IN THE FLOQUET CHANNEL OF A THREE-DIMENSIONAL PERIODIC STRUCTURE	*Institute for Radiophysics and Electronics of NAS of Ukraine*
7.	I.I. Mironov A.I. Gubin A.A. Lavrinovich	WAVEGUIDE CORNER BEND SECTION WITH HTS SAMPLE	*Institute for Radiophysics and Electronics of NAS of Ukraine*
8.	E.G. Plakhtiy S.A. Omelchenko O.V. Khmelenko A.A. Gorban M.F. Bulany K.V. Ganyuk	THE INFLUENCE OF THERMAL TREATMENT OF THE HEXAGONAL CRYSTALS ZnS ON THE PHOTOLUMINESCENCE SPECTRUM OF THE CENTRE Mn^{2+}	*Oles Gonchar Dnepropetrovsk National University*
9.	S.N. Moroz[1] V.V. Ovsyanikov[2]	ELECROMAGNETIC CHARACTERISTICS OF RADIATORS INSTALLED ON AEROSPACE OBJECTS OF COMPLEX CONFIGURATION	[1]*State Higher Education Institution "National Mining University"* [2]*Dnipropetrovsk National University*

SESSION: GEOSCIENCE AND REMOTE SENSING

2nd Conference Hall Tuesday **29.11.2011** **14:00 – 16:30**

1.	V.V. Abramova M.L. Uss A.V. Yoltuhovskiy V.V. Lukin	BLIND NOISE VARIANCE ESTIMATION IN IMAGES USING ROBUST SCALE ESTIMATORS	*National airspace university by the name of N.E. Zhukovsky «KhAI»*
2.	I.S. Bondarenko V.G. Sugak	TO A QUESTION ON ADEQUACY OF EXISTING MODELS OF ELECTRIC CHARACTERISTICS OF REAL GROUNDS	*Institute for Radiophysics and Electronics of NAS of Ukraine*
3.	A.A. Koval A.A. Staniskavsky A.A. Konovalenko	SPECTRUM OF QUIET SUN RADIO EMISSION WITHIN 16.5-200 MHZ	*Institute of Radio Astronomy of NAS of Ukraine*
4.	A.L. Kovorotniy	MEASURING GPS RECEIVER FOR RESEARCHING OF THE ATMOSPHERE PARAMETERS	*Institute for Radiophysics and Electronics of NAS of Ukraine*
5.	R.A. Kozhemyakin V.V. Abramova S.K. Abramov	FILTERING OF REMOTE SENSING IMAGES USING THE AUTOMATIC VARIANCE-STABILIZING TRANSFORM	*National airspace university by the name of N.E. Zhukovsky «KhAI»*
6.	V.V. Kudriashov K.A. Lukin V.P. Palamarchuk	RADIOMETRIC COHERENT IMAGE FORMING OF THE NOISE WAVEFORM SOURCE USING 8-MM BAND NOISE WAVEFORM SAR EQUIPMENT OPERATES AS INTERFEROMETRIC RADIOMETER	*Institute for Radiophysics and Electronics of NAS of Ukraine*
7.	D.V. Nacharov Y.P. Mickhayluck	DAYTIME OPTICAL VISIBILITY DISTANCE ESTIMATION USING DIGITAL TELEVISION IMAGE	*Sevastopol National technical university*
8.	V.V. Naumenko	BIT LENGTH OPTIMIZATION IN COMMUNICATION SYSTEM BY USING BISPECTRUM-ORGANIZED FREQUENCY MANIPULATION	*National airspace university by the name of N.E. Zhukovsky «KhAI»*
9.	A.S. Rubel	RESEARCHING OF METHODS FOR DETERMINING THE INTERFRAME DISPLACEMENT IN A VIDEO SEQUENCE FOR OPTICAL SYSTEMS MEASURE MOTION	*National airspace university by the name of N.E. Zhukovsky «KhAI»*
10.	Yu.A. Shkvyrya	ALGORITHM OF AUTOMATIC SEARCH FOR LOCAL OBJECTS WITH GPR USING BISTATIC ANTENNA SYSTEM	*Institute for Radiophysics and Electronics of NAS of Ukraine*

11.	A.M. Vyetoshko I.V. Popov	ALGORITHM FOR EVALUATION OF SIGNAL PHASE IN ACOUSTIC DIRECTION FINDING OF MOVING OBJECTS	*Institute for Radiophysics and Electronics of NAS of Ukraine*
12.	S.I. Skuratovskiy Yu.V. Kornienko	FOURIER-COMPONENTS PHASE ACCUMULATION IN OBSERVATION USING A MULTI-APERTURE TELESCOPE	*Institute for Radiophysics and Electronics of NAS of Ukraine*
13.	M.V. Zinchenko Y.F. Zinkovskiy	DETECTION OF NONLINEAR SCATTERERS AS A CASUAL GENERATORS OF CHAOTIC OSCILLATIONS	*National Technical University of Ukraine "KPI"*
14.	E.V. Semyonov A.G. Loschilov S.A. Artyschev	DETECTION RANGE OF NON-QUALITY ELECTRICAL CONTACTS IN WIRED TRANSMISSION LINES USING A NONLINEAR BASEBAND REFLECTOMETRY	*Tomsk State University of Control Systems and Radioelectronics*

POSTER SESSION:

Tuesday **29.11.2011** **17:00 – 18:00**

1.	O.V. Shapoval	MODELING OF IMPEDANCE STRIP SCATTERING WITH A COMBINATION OF GENERALIZED BOUNDARY CONDITIONS AND NYSTROM-TYPE DISCRETIZATION	*Institute for Radiophysics and Electronics of NAS of Ukraine*
2.	V.A. Franiv V.E. Dzikovsky	X-RAY STRUCTURAL AND MECHANICAL PROPERTIES OF CRYSTALS Tl_4HgI_6 and Tl_4CdI_6	*Ivan Franko National University of L'viv*
3.	A.M. Ivanitckiy M.V. Rozhnovskiy	INCREASE OF MICROSTRIP FILTER SELECTIVITY WITH A HELP OF EXPOFUNCTIONAL EXCITATION	*Odessa National Academy of Telecommunications n. a. O.S. Popov*
4.	I.P. Storozhenko E.N. Zhivotova	RESONANCE FREQUENCY OF GUNN DIODES BASED ON THE A_3B_5 GRADED-GAP SEMICONDUCTORS	*National University of Pharmacy*
5.	E.V. Zhornik[1] L.A. Baranova[1] N.H. Chau[2] N.Q. Buu[2] C.T.N. Zung[2]	INDUCTION OF OXIDATIVE STRESS IN HUMAN LYMPHOCYTES UNDER THE INFLUENCE OF SILVER NANOPARTICLES	[1]*Institute of Biophysics and Cell Engineering of NAS of Belarus* [2]*Institute of Environmental Technology of VAST*
6.	A.S. Buchelnikov V.P. Evstigneev	RELIABILITY OF THE FACTORS R_D AND A_D DETERMINATION IN THREE-COMPONENT DNA-CONTAINING SYSTEMS	*Sevastopol National Technical University*
7.	A.G. Misyura Y.Y. Sdobnikov S.A. Mamilov	OPTOSENSOR INFORMATION GATHERING AND PROCESSING ALGORITHMIZATION IN TASK OF SKIN NEOPLASM DYNAMICS CONTROL	*Institute of applied problems of physics and biophysics of NAS of Ukraine*
8.	A.A. Belyh	COMPARATIVE ESTIMATION OF MEDICAL IMAGE COMPRESSION METHODS	*N.E. Zhukovsky National Aerospace University "National Aviation Institute"*
9.	N.V. Divakova G.N. Semenkova	CINNAMATES EFFECT ON REACTIVE OXYGEN AND CHLORINE SPECIES FORMATION PROCESSES IN NEUTROPHILS	*Belarusian State University*

SESSION: MICROWAVE AND TERAHERTZ ELECTRONICS – 1

1st Conference Hall **Wednesday 30.11.2011 9:00 – 11:00**

1.	A.A. Bozhko S.S. Apostolov[1,2] Z.A. Maizelis[1,2,3] M.A. Sorokina[1,2,4] V.A. Yampol'skii[1,2]	AMPLITUDE-SENSITIVE SURFACE REACTANCE OF LAYERED SUPERCONDUCTOR	[1]*V.N. Karazin Kharkov National University* [2]*A.Ya.Usikov Institute for Radiophysics and Electronics of NAS of Ukraine* [3]*Michigan State University* [4]*Aston University*
2.	A.V. Dus' I.N. Tsyrelchuk	SIDE FLUCTUATIONS IN ELECTRONIC MICROWAVE DEVICES	*Belarusian State University of Informatics and Radioelectronics*
3.	A.V. Fateev A.V. Varavin G.P. Ermak A.S. Vasilyev	DEVELOPMENT OF THE ALGORITHM PROCESSING THE SPECTRUM AUTODYNE SIGNAL TO IMPROVE RANGE RESOLUTION	*Institute for Radiophysics and Electronics of NAS of Ukraine*
4.	E.V. Golovacheva A.M. Lerer	ELECTROMAGNETIC IMPULSE DIFFRACTION ON METALDIELECTRIC NANODIPOLE	*Southern Federal University*
5.	S.A. Kishko S.S. Ponomarenko A.N. Kuleshov B.P. Yefimov	RIBBON ELECTRON BEAM FOR PLANAR GYROTRON WITH TRANSVERSE DIFFRACTIONAL ENERGY EXTRACTION	*Institute for Radiophysics and Electronics of NAS of Ukraine*
6.	E.O. Melezhik J.V. Gumenjuk-Sichevska	MOBILITIES AND RELAXATION TIMES OF ELECTRONS IN THE QUANTUM WELL $CdTe/Hg_{1-x}Cd_xTe/CdTe$ WITH INVERTED BAND SCHEME	*V. E. Lashkaryov institute of semiconductor physics of NAS of Ukraine*
7.	O.S. Mokhovykov O.O. Trubin	OPTIMIZATION OF PARAMETERS OF NOTCH FILTERS BASED ON DIELECTRIC RESONATORS USING GENETIC ALGORITHMS	*National technical university of Ukraine "KPI"* *Institute of telecommunications*

SESSION: MICROWAVE AND TERAHERTZ ELECTRONICS – 2

1st Conference Hall **Wednesday 30.11.2011 11:30 – 13:30**

8.	S.S. Ponomarenko S.A. Kishko A.N. Kuleshov B.P. Yefimov	MW MODULATOR WITH COUPLED GRATING ON PLANAR COMBS FOR TRANSITION RADIATION EXPERIMENTS	*Institute for Radiophysics and Electronics of NAS of Ukraine*
9.	V.I. Shcherbinin[1] G.I. Zaginaylov[1,2]	HYBRID WAVES IN GYROTRON CAVITY WITH BACKGROUND PLASMA	[1]*National Science Center «Kharkov Institute of Physics and Technology» NASU* [2]*V.N. Karazin Kharkov National University*
10.	E.V. Skubenko[2] V.I. Shcherbinin[1] V.I. Tkachenko[1,2]	WAVES IN MAGNETIZED PLASMA FILLED WAVEGUIDE WITH FREQUENCIES EQUAL TO UPPER-HYBRID FREQUENCY	[1]*National Science Center «Kharkov Institute of Physics and Technology» NASU* [2]*V.N. Karazin Kharkov National University*
11.	K. Torokhtii E. Khramota	SUPERCONDUCTING WAVEGUIDE	*National Technical Univercity «Kharkiv Polytechnical Institute»*
12.	S.V. Trofymenko[1] N.F. Shul'ga[1] V.V. Syshchenko[2]	THE PREWAVE ZONE EFFECTS IN TRANSITION RADIATION AND BREMSSTRAHLUNG BY RELATIVISTIC ELECTRON	[1]*Akhiezer Institute for Theoretical Physics of National Science Centre "Kharkov Institute of Physics and Technology"* [2]*Belgorod State University*
13.	V.A. Zolotarev V.N. Skresanov	SELF-OSCILLATION MODE OF THE CHA3093 MILLIMETER-WAVE AMPLIFIER WITH AN OPEN RESONATOR IN THE FEEDBACK LOOP	*Institute for Radiophysics and Electronics of NAS of Ukraine*

SESSION: OPTICS AND PHOTONICS

2nd Conference Hall **Wednesday 30.11.2011 9:00 – 11:00**

1.	A.D. Arhipov O.A. Sydorenko	THE USE OF MULTILAYER ANISOTROPIC STRUCTURE IN THE COUPLER	*Dnepropetrovsk National University after O. Honchar*
2.	A. Kashtalian	ACCURACY INCREASING OF THE PHOTODIODE OPTICAL SENSOR	*Khmelnitsky National University*
3.	L.G. Krylova	Yb-Er LASER MIKROCHIP OPTIMIZATION	*Belarussian State University*
4.	A.A. Kuzmenko[3] A.V. Kats[1] I.S. Spevak[1] N.A. Balakhonova[2]	RESONANCE DIFFRACTION OF ELECTROMAGNETIC WAVES AT GRAZING INCIDENCE ON LONG-PERIOD IMPEDANCE GRATING	[1]*Institute for Radiophysics and Electronics of NAS of Ukraine* [2]*Taras Shevchenko National University of Kyiv* [3]*Karazin Kharkiv National University*
5.	E.G. Plakhtiy S.A. Omelchenko O.V. Khmelenko A.A. Gorban V.V. Kulish	THE INFLUENCE OF CONDITIONS OF EXCITATION ON THE SPECTRUM OF PHOTOLUMINESCENCE OF THE CENTRES Mn^{2+} IN THE CRYSTALS ZnS	*Oles Gonchar Dnepropetrovsk National University*
6.	T.M. Slipchenko[1] V.A. Yampol'skii[1] D.V. Kadygrob[2] D. Bogdanis[3]	JOSEPHSON PLASMA WAVES IN SLAB OF LAYERED SUPERCONDUCTOR	[1]*Institute for Radiophysics and Electronics of NAS of Ukraine* [2]*Chalmers University of Technology* [3]V. N. *Karazin Kharkiv National University*
7.	T.M. Slipchenko I.S. Spevak A.V. Kats	STIMULATED LIGHT SCATTERING AT CAPILLARY-GRAVITY WAVES ACCOMPANIED BY PLASMON-POLARITON T EXCITATION	*Institute for Radiophysics and Electronics of NAS of Ukraine*
8.	V. Tregubov I. Tsyrelchuk	SECURITY SYSTEM BASED ON FIBER-OPTIC SENSORS	*Belarusian State University of Informatics and Radioelectronics*

9.	P. Tsimkalenko V.I. Fesenko	EXPERIMENTAL INVESTIGATION OF SPECTRAL CHARACTERISTICS OF THE MICROCAVITY BASED ON POROUS SILICON	*Kharkov National University of Radio Electronics*
10.	K.S. Zelenska S.E. Zelensky O.V. Kopyshynsky	THERMAL EMISSION OF CARBON SURFACE UNDER NANOSECOND LASER EXCITATION	*National Taras Shevchenko University of Kyiv*

SESSION: SOLID STATE RADIOPHYSICS, NANO AND METAMATERIALS

2nd Conference Hall **Wednesday 30.11.2011 11:30 – 13:30**

1.	D. Abdulkadyrov	THEORETIC RESEARCH OF A MAGNETOIMPEDANCE OF THE NON-STATIONARY NON-SYMMETRIC MAGNETIC TUNNEL JUNCTION	*Institute for Radiophysics and Electronics of NAS of Ukraine*
2.	Ye.S. Tкachenko Z.E. Eremenko V.N. Scresanov	DISTRIBUTION OF THE ELECTROMAGNETIC FIELD IN THE STRUCTURE – DIELECTRIC ROD SURROUNDED BY HIGH LOSS LIQUID	*Institute for Radiophysics and Electronics of NAS of Ukraine*
3.	D.M. Naplekov	DEPENDENCE OF INDICATRIX OF REFLECTION ON BORDER STRUCTURE	*Institute for single crystals of NAS of Ukraine*
4.	T.V. Kalmykova	MAGNETIZATION OF MANGANITE-PEROVSKITE STRUCTURE IN THE VICINITY OF CURIE TEMPERATURE	*Institute for Radiophysics and Electronics of NAS of Ukraine*
5.	A.A. Kharchenko	NATURE RESONANCES IN THE BANDGAP OF THE BOUNDED BIPERIODIC MAGNETOPHOTONIC CRYSTALS	*Institute for Radiophysics and Electronics of NAS of Ukraine*
6.	L.I. Kozhara[1,2] E.M. Ostrizhnoy[1]	POLARIZATION AND FOCUSING PROPERTIES OF WIRE MEDIA LENS IN THE MILLIMETER WAVEBAND	[1]*Kharkov National University of Radio Electronics* [2]*Institute for Radiophysics and Electronics of NAS of Ukraine*
7.	A. Moskaltsova[1] S.V. Nedukh[2]	MICROWAVE PROPERTIES OF POLYCRYSTALLINE FERRITES	[1]*National Technical University KhPI* [2]*Institute for Radiophysics and Electronics of NAS of Ukraine*

8.	M.A. Belov	LOCALIZED WAVEPACKET TRANSPORT THROUGH ONE-DIMENSIONAL STRUCTURES	*Belarusian State University*
9.	M.A. Popov[1,2] I.V. Zavislyak[2] G. Srinivasan[1]	MAGNETODIELECTRIC RESONANCES-BASED TUNABLE 100 GHz DEVICES	[1]*Oakland University* [2]*National Taras Shevchenko University*
10.	A. Bezpal'chenko M.F. Bulaniy A.V. Kovalenko A.R. Omelchuk	PHOTOSENSITIVE PARAMAGNETIC CENTERS IN CRYSTALS OF SOLID SOLUTIONS BASED ON ZnS	*Oles Gonchar National University of Dnepropetrovsk*
11.	N. Boboriko D.I. Mychko	NANOCRYSTALLINE MULTIOXIDE MATERIALS ON THE BASIS OF TITANIUM DIOXIDE AS SENSING LAYERS OF CHEMICAL GAS SENSORS	*Belarusian State University*
12.	O.V. Khmelenko S.E. Ivanova S.A. Omelchenko A.A. Gorban S.A. Lokot`	PHYSICAL PROPERTIES OF NANOSTRUCTURED FILMS Co-Cu/Cu, PRODUCED BY ELECTROCHEMICAL METHODS	*O. Gonchar Dnipropetrovsk National University*

SESSION: BIOPHYSICS - 1

2nd Conference Hall **Thursday 01.12.2011 10:00 – 11:30**

1.	K.A. Arkhypova	SINGLE-FREQUENCY MICROWAVE DIELECTROMETRY OF THE BLOOD	*Institute for Radiophysics and Electronics of NAS of Ukraine*
2.	N.G. Krylova[1] G.N. Semenkova[1] G.V. Krylova[1] T.A. Kulahava[1] V.V. Hrushevsky[1] I.V. Lipnevich[1] T.I. Orekhovskaya[2] B.G. Shulitsky[2]	MONONUCLEAR FUNCTIONAL STATE CHANGING DETECTION BY DIELECTRIC SPECTROSCOPY	[1]*Belarusian State University* [2]*Belarusian State University of Informatics and Radioelectronics*
3.	T.A. Kulahava N.G. Krylova I.I. Zholnerevich G.N. Semenkova	REDOX REGULATION OF GLIOMA CELL PROLIFERATION	*Belarusian State University*
4.	D.M. Glibitskiy	EVALUATION OF CELL FOR MEASURING OF DIELECTRIC PROPERTIES IN A WIDE TEMPERATURE RANGE AS EXEMPLIFIED BY POLYETHYLENEGLYCOL SOLUTION	*Institute for Radiophysics and Electronics of NAS of Ukraine*

5.	Iu.N. Blyzniuk	STUDY OF HETEROASSOCIATION OF BIOLOGICALLY ACTIVE COMPOUNDS BY IR AND RAMAN SPECTROSCOPY	*Institute of Radiophysics and Electronics of NAS of Ukraine*
6.	K.I. Butskiy[1,2] V.S. Marchenko[1]	STRUCTURAL AND FUNCTIONAL CHANGES IN THE HAMSTER'S BRAIN AFTER DIFFERENT HYPOTERMC INFLUENCES	[1]*Institute for Problems of Cryobiology and Cryomedicine of NAS of Ukraine* [2]*Karazin Kharkiv National University*

SESSION: BIOPHYSICS - 2

2nd Conference Hall **Thursday 01.12.2011 12:00 – 13:30**

7.	E.N. Golubeva G.G. Martinovich I.V. Martinovich S.N. Cherenkevich	REGULATION OF THE MITOCHONDRIAL ELECTRON TRANSFER IN CANCER CELLS BY ASCORBIC ACID	*Belarusian State University*
8.	M. Andryieuskaya P.M. Bulai A.O. Ryazhechkin T.N. Pitlik S.N. Cherenkevich	PARAMETERS OF THE VOLTAGE-DEPENDENT CONDUCTIVITY OF POTASSIUM CHANNELS Kv1.1	*Belarussian State University*
9.	D.V. Velygotsky[2] S.O. Mamilov[1] S.S. Yesman[1] N.V. Stelmach[2]	NON-INVASIVE MEASUREMENT OF CARBOXYHEMOGLOBIN IN BLOOD FLOW	[1]*Institute for Applied Problems of Physics and Biophysics of NAS of Ukraine* [2]*Natsionalnyy Technical University of Ukraine "Kyiv Polytechnic Institute"*
10.	I.V. Skresanova E.A. Barannik	THE THEORY OF ULTRASOUND DOPPLER RESPONSE SPECTRAL ANALYSIS UNDER ISOMETRIC MUSCLE CONTRACTION	*Karazin Kharkiv National University*
11.	A.V. Adeljanov O.A. Gorobchenko O.T. Nikolov S.V. Gatash	THE INFLUENCE OF BOVINE SERUM ALBUMINE ON ELECTROCONDUCTIVITY OF ULTRADISPERSE NANODIAMONDS WATER SUSPENSIONS	*V.N. Karazin Kharkov National University*
12.	K.G. Kravchuk A.K. Vidybida	OUTPUT STREAM OF INHIBITORY BINDING NEURON WITH DELAYED FEEDBACK	*Bogolyubov Institute for Theoretical Physics of NAS of Ukraine*

SESSION: BIOPHYSICS - 3

2nd Conference Hall **Thursday 01.12.2011 14:00 – 15:30**

13.	K.G. Kravchuk A.K. Vidybida	OUTPUT STREAM OF EXCITATORY BINDING NEURON WITH DELAYED FEEDBACK IS NON-MARKOVIAN	*Bogolyubov Institute for Theoretical Physics of NAS of Ukraine*
14.	D.M. Glibitskiy	INVESTIGATION OF RELATIONSHIP OF FRACTAL CHARACTERISTICS OF DNA FILMS WITH MUTAGENIC EFFECT OF METAL IONS	*Institute for Radiophysics and Electronics of NAS of Ukraine*
15.	A.P. Kastorna G.P. Gorbenko V.M. Trusova	MECHANISMS OF AGGREGATED PROTEIN TOXICITY: FLUORESCENCE SPECTROSCOPY STUDY	*Karazin Kharkiv National University*
16.	K.O. Vus[1] V.M. Trusova[1] G.P. Gorbenko[1] E. Kirilova[2] I. Kalnina[2]	LYSOZYME FIBRILLIZATION MONITORED WITH AMINOBENZANTHRONE FLUORESCENT DYES	[1]*Karazin Kharkiv National University* [2]*Daugavpils University*
17.	Ye.O. Minakova	SPECTROPHOTOMETRIC INVESTIGATION OF PROFLAVINE AND CAFFEINE COMPETITIVE BINDING TO DNA	*Institute for Radiophysics and Electronics of NAS of Ukraine*
18.	A.S. Sedov M.A. Moisseev N.A. Zavolsky V.E. Zapavalov	REALIZATION OF GYRO-BWO REGIME IN GYROTRON WITH INVERTED ELECTRODYNAMIC SYCTEM	*Institute of applied physics Russian Academy of Scince*

V Young Researcher Career Development Workshop

«bridging a gap between education and career in photonics and electromagnetics»

organized in the frame of YSC-2011, Kharkiv, Ukraine

sponsored by IEEE MTT-S, AP-S, SSC-S, PHO-S IRE Kharkiv Student Branch Chapters, in collaboration with OSA/SPIE Joint Student Chapter of IRE NASU

Wednesday, November 30th, 2011

The programme of the seminar includes:

- Invited speakers' presentations: the lecturers will share their personal experience of how to bridge a gap between scientific research and career in electromagnetics and photonics;
- Applying for a grant, writing scientific papers, giving oral presentations and making posters tutorials;
- OSA/SPIE, IEEE student chapters presentations: information about international organizations in optics and photonics such as OSA, SPIE and IEEE will be presented.

Invited papers: 14:30 – 15:30

- **Prof. Igor Alexeff, USA** "The history of IEEE NPSS".
- **Dr. Alexey Shitvov, U. K.,** "Personal career plan and institutional researcher development framework: how to be a perspective researcher and what are the perspectives of being a researcher".

  Outline:
  - Personal career plan
  - Researcher development framework as an instrumental means of career progression
  - Developmental resources to boost your personal career
  - Dealing with career changes: how to develop transferable research skills and make wisdom out of your momentous technical knowledge
  - How to be make your research the oeuvre: some incantations for creation and imagination through measurements and equations

- **Dr. Oksana Shramkova, U. K.,** "Marie Curie Individual Fellowships".

  Outline:
  1. Types of individual-driven actions
  2. Marie Curie Incoming International Fellowships (IIF)?
  - What is Marie Curie Incoming International Fellowship (IIF)?
  - Who can apply?
  - What does the funding cover?
  - How to apply?
  3. Preparing a proposal
  4. Evaluation of proposals

Ordinary papers: 15:30 – 16:30

- **Dr. Alexey Kuleshov, Ukraine,** "Scholarships, awards and grants for Ukrainian young scientists".

  Outline:
  1. National programs of support for young scientists of the NAS of Ukraine
  2. Joint projects of MES and NAS of Ukraine with international scientific organizations and foundations
  3. Research grants STCU:
  - Regular STCU Projects
  - Partnership STCU Projects
  - Targeted initiatives

- **Dr. Olga Kostylyova, Ukraine,** "How to write a scientific paper".

  Outline:
  - Some information about scientific journals will be given.
  - Common and practical recommendation on writing an article will be provided.
  - Peculiarities of paper sections will be discussed.

- **PhD. Mariia Pashchenko, Ukraine,** "What are OSA and SPIE, and why they are needed for students".

  Outline:
  Optical International societies like OSA and SPIE:
  - What are the benefits of membership in these societies and how to use them?
  - What is the Student Chapter, how you can organize it and how you will be benefit from it.

- **PhD. Maksim Khruslov, Ukraine,** "Understanding the IEEE Brand".

  Outline:
  - Our brand is much more then our logo
  - Our brand is a promise
  - Protecting the brand protects our future
  - We want our brand to be universally recognized
  - IEEE for students

ESF-NEWFOCUS WORKSHOP: NEW FRONTIERS IN TERAHERTZ TECHNIQUES AND WIRELESS COMMUNICATIONS

Organized and Sponsored by ESF RNP "NEWFOCUS"

Thursday, December 1st, 2011

Invited papers: 9:00 – 13:00

- **Prof. Ana Vukovic,** School of Electrical and Electronic Engineering, University Park, Nottingham, U.K.**,** "BODY OF REVOLUTION INTEGRAL EQUATIONS: THEORY AND PRACTICAL IMPLEMENTATION"
- **Prof. Svetlana Vitusevich,** Forschungszentrum Juelich, Peter Gruenberg Institute, Juelich, Germany**,** "ADVANCED TECHNIQUES FOR MILLIMETER AND SUBMILLIMETER-WAVE CHARACTERIZATION OF MATERIAL PROPERTIES"
- **Dr. Oksana Shramkova**, School of Electronics, Electrical Engineering & Computer Science, Queen's University Belfast, Belfast, U.K., "THREE-WAVE NONLINEAR SCATTERING IN FINITE LAYERED STRUCTURES AS A WAY TO TERAHERTZ WAVE GENERATION"
- **Dr. Alexey Shitvov**, The Institute of Electronics, Communications and Information Theory (ECIT) Queen's University of Belfast, Belfast, U.K., "PHENOMENOLOGY AND EXPERIMENTAL CHARACTERISATION OF DISTRIBUTED NONLINEARITIES IN PRINTED CIRCUIT COMPONENTS FOR WIRELESS COMMUNICATIONS"
- **Prof. Mikhail Glyavin,** Institute of Applied Physics of Russian Academy of Sciences, Nizhny Novgorod, Russia**,** "THz GYROTRONS: DEVELOPMENT AND APPLICATIONS"

Ordinary papers: 14:00 – 16:00

1. **A. N. Kuleshov, E. M. Khutoryan, S. S. Ponomarenko, S. A. Kishko and B. P. Yefimov,** Institute of Radiophysics and Electronics of NASU, Kharkiv, Ukraine, "INTERACTION OF NONRELATIVISTIC ELECTRON BEAM WITH SLOW ELECTROMAGNETIC WAVES IN 400 GHZ BWO-CLINOTRON"

2. **D. M. Natarov,** Institute of Radiophysics and Electronics of NASU, Kharkiv, Ukraine, "SCATTERING OF LIGHT BY THE PERIODICALLY STRUCTURED SILVER NANOWIRES"

3. **V. O. Byelobrov,** Institute of Radiophysics and Electronics of NASU, Kharkiv, Ukraine, "MODELING OF LOW-THRESHOLD OPEN RESONATORS BASED ON A PARTIALLY ACTIVE DIELECTRIC SLAB"

4. **A. B. Kleshchenkov**, Southern Federal University, Physics faculty, Rostov-on-Don, Russia, "ELECROMAGNETIC WAVES DIFFRACTION ON METALL NANODIPOLE AT THE INTERFACE OF TWO DIELECTRICS"

5. **A. Vorobyov, A. Boriskin, E. Fourn, R. Sauleau,** IETR Universite de Rennes 1, INSA de Rennes, Rennes, France, "RECONFIGURABLE PHASED ANTENNA ARRAYS FOR AUTOMOTIVE RADAR APPLICATION"

6. **N. P. Stognii, N. K. Sakhnenko,** Kharkov National University of Radio Electronics, Kharkiv, Ukraine, "EIGENVALUE PROBLEM IN A LINEAR CHAIN OF COUPLED INFINITE-LONG PLASMA CYLINDERS"

7. **M. V. Sakhno, D. B. But, O. G. Golenkov,** Institute of Semiconductor Physics of NASU, Kiev, Ukraine, "SI-FETS USED AS DETECTORS FOR THz/SUB-THz SPECTRAL RANGE"

8. **I. V. Fedorin, A. A. Bulgakov,** National Technical University «Kharkov Polytechnical Institute», Kharkiv, Ukraine, "SURFACE ELECTROMAGNETIC WAVES IN FINE-STRATIFIED PERIODIC SEMICONDUCTOR-DIELECTRIC STRUCTURE IN A MAGNETIC FIELD"

9. **A. A. Girich**, Institute of Radiophysics and Electronics of NASU, Kharkiv, Ukraine, "MAGNETOPHOTONIC STRUCTURES WITH LONGITUDINAL MAGNETIZATION. EXPERIMENTAL TECHNIQUE"