

2013 IX INTERNATIONAL CONFERENCE
on
ANTENNA THEORY
AND TECHNIQUES
ICATT'13

Conference program

September 16 – 20, 2013
Odessa, Ukraine

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- IEEE Antennas and Propagation Society (AP-S)
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- “Antenny” (Antennas), Scientific and Technical Journal (Moscow, Russian Federation)
- IEEE Russian Federation (Moscow) Joint Chapter AP
- “Physical Bases of Instrumentation”, International Journal (Moscow, Russian Federation)

WELCOME TO
IX INTERNATIONAL CONFERENCE
ON ANTENNA THEORY AND TECHNIQUES

ICATT '13

September 16 – 20, 2013

Dear colleagues,

We are happy to welcome the participants of IX International Conference on Antenna Theory and Techniques (ICATT'13) being held at the A.S.Popov Odessa National Academy of Telecommunications.

Our conference for the first time is held in the wonderful Black sea city of Odessa whose unique aura is known worldwide. On one side, a choice of Odessa as a place for holding ICATT'13 is the recognition of a traditionally high level of fundamental and applied Odessa science, in particular radio electronics. It is enough to remind that one of the first symposia on diffraction of electromagnetic waves was held namely in Odessa. On the other side, this choice is stipulated by a warm invitation and readiness of the leadership of the Academy of telecommunications and Chair of Technical electrodynamics and systems of radio communication here to be a venue of this conference.

As always, the conference organizers have paid special attention to topics and authors of plenary presentations intended to reflect the state-of-the-art of the antenna science in these or those actual directions. Without doubts, this will favor the high scientific level of the conference and will be of great help to young scientists.

Beside of plenary and sectional presentations, we have also planned holding a circular table on the problem "The Antenna Field in Space Close to it. Focused Antennas" and a number of review lectures for scientific youth.

We would like to express our gratitude to Chairman of the ICATT'13 Organizing Committee Rector of the Academy of Telecommunications Professor Petr P. Vorobienko as well as all the members of the Organizing Committee who did all their best for this conference to be successful.

We would like to thank also all the participants who arrived to Odessa. And we are grateful to all the sponsors of ICATT'13 for their financial and technical support.

We wish all the ICATT'13 participants the fruitful work, the strengthening of scientific friendly links and to have nice days near the Black sea these charming September days.

Honorary Chairman

Yakov S. Shifrin

Chairman

Mikhail B. Protsenko

TIMETABLE

	Time	Auditorium A	Auditorium B	Auditorium C	Auditorium D
Sunday, September 15	12.00-18.00	Registration (Hall of ONAT)			
Monday, September 16	10.00-10.30	Opening Ceremony			
	10.30-12.00	Plenary Session 1.1			
	12.00-12.20	Coffee break (Hall of ONAT)			
	12.20-13.00	Plenary Session 1.2			
	13.00-13.30	General Conference Picture (at the main entrance to the ONAT building)			
	13.30-14.30	Lunch Time			
	14.30-16.30	Session 1.1 General antenna theory and electromagnetic field	Session 2.1 Antenna arrays, adaptive and smart antennas	Session 3.1 Ultra-wideband, broadband and multi-frequency antennas	Session 4.1 Low-gain antennas
	16.30-16.50	Coffee break (Hall of ONAT)			
	16.50-18.50	Session 1.2 General antenna theory and electromagnetic field	Session 2.2 Antenna arrays, adaptive and smart antennas	Session 3.2 Ultra-wideband, broadband and multi-frequency antennas	Session 5.1 Measurements of antenna parameters
	19.00	WELCOME PARTY			

TIMETABLE

Tuesday, September 17	9.00-10.30		Plenary Session 2.1			
	10.30-10.50		Coffee break (Hall of ONAT)			
	10.50-13.30		Plenary Session 2.2			
	13.30-14.30		Lunch Time			
	14.30-16.30		Session 1.3 General antenna theory and electromagnetic field	Session 2.3 Antenna arrays, adaptive and smart antennas	Session 7.1 Reflector an- tennas	Session 8.1 Components and circuits of microwave and optoelectronic communication systems
	16.30-16.50		Coffee break (Hall of ONAT)			
	16.50- 19.50	16.50 - 18.50	Session 1.6 General antenna theory and electromagnetic field	Session 2.5 Antenna ar- rays, adaptive and smart antennas	Session 8.3 Components and circuits of microwave and optoelectronic communication	Session 9.3 Industrial and medical appli- cations of mi- crowave technology
16.50 - 19.50		Round table				
Wednesday, September 18	10.00-19.00		CULTURAL PROGRAM			

TIMETABLE

Thursday, September 19	9.00-10.30	Plenary Session 3.1			
	10.30-10.50	Coffee break (Hall of ONAT)			
	10.50-13.30	Plenary Session 3.2			
	13.30-14.30	Lunch Time			
	14.30-16.50	Session 1.4 General antenna theory and electromagnetic field	Session 6 Analytical and numerical methods	Session 8.2 Components and circuits of microwave and optoelectronic communication	Session 9.1 Industrial and medical appli- cations of mi- crowave technology
	16.50-17.10	Coffee break (Hall of ONAT)			
	17.10-18.50	Session 1.5 General antenna theory and electromagnetic field	Session 2.4 Antenna arrays, adaptive and smart antennas	Session 7.2 Reflector an- tennas	Session 9.2 Industrial and medical appli- cations of mi- crowave technology
	19.30	BANQUET			
Friday, September 20	10.00-11.30	Plenary Session 4.1			
	11.30-12.10	Plenary Session 4.2			
	12.10-12.30	Coffee break (Hall of ONAT)			
	12.30-13.30	Session 1.7 General antenna theory and electromagnetic field	Session 2.6 Antenna arrays, adaptive and smart antennas	Session 4.2 Low-gain an- tennas	Session 5.2 Measurements of antenna pa- rameters
	14.00	Closing Ceremony			

MONDAY, SEPTEMBER 16	
REGISTRATION	8.00-10.00 Hall of ONAT
OPENING CEREMONY	10.00-10.30 Auditorium A
PLENARY SESSION 1 INVITED PAPERS <i>Chairs: Ya.S. Shifrin, N.N. Voitovich</i>	10.30-13.00 Auditorium A
01.	Phase optimization problems in antenna synthesis theory B.Z. Katsenelenbaum, N.N. Voitovich, V.V. Semenov, R.B. Vaganov, P.O. Savenko, M.I. Andriyчук, Yu.N. Kazantsev, Yu.P. Tkachuk, A.N. Sivov, A.D. Shatrov, E.N. Korshunova, O.F. Zamorska, S.A. Yaroshko, V.J. Anokhin, O.M. Gis, Yu.P. Topolyuk, O.O. Bulatsyk, M.D. Tkach <i>10.30-11.10</i>
02.	Rapidly convergent “superresolving” direction finders of noise radiation sources in adaptive arrays D.I. Lekhovyt'skiy, Y.S. Shifrin, D.V. Atamanskiy <i>11.20-12.00</i>
Coffee break	
12.00-12.20	
03.	Radiation and matching characteristics of phase array antennas built of printed quasi-yagi radiating elements <i>12.20-13.00</i> F.F. Dubrovka, O. E. Vydalko, V.I. Gouz, V.P. Lipatov, A.V. Butyrin
GENERAL CONFERENCE PICTURE (at the main entrance to the ONAT building)	
13.00-13.30	
Lunch time	
13.30-14.30	
SESSION 1.1 GENERAL ANTENNA THEORY AND ELECTROMAGNETIC FIELD <i>Chairs: B. M. Levin, D. Y. Penkin</i>	
14.30-16.30 Auditorium A	
01.	Methods of irradiation compensation in wide frequency band <i>invited paper</i> B.M. Levin <i>14.30-14.50</i>
02.	Transition from the parabolic problem to the flat one and phantom <i>invited paper</i> B.M. Levin <i>14.50-15.10</i>
03.	Theoretical research of resonant characteristics of metal-dielectric diffraction gratings E. A. Tsvetyansky <i>15.10-15.30</i>

04.	The method of synthesis of antenna with active elements V.P. Bunakov, A.A. Golovin, V.I. Rudakov	15.30-15.50
05.	Microwave radiation of the column of isotropic and magnetized plasma Yu.V. Kirichenko, Yu.F. Lonin, I.N. Onishchenko	15.50-16.10
06.	Radiation fields of radial impedance monopole mounted on a perfectly conducting sphere D.Yu. Penkin, V.A. Katrich, V.M. Dakhov, M.V. Nesterenko, S.L. Berdnik	16.10-16.30
SESSION 2.1 ANTENNA ARRAYS, ADAPTIVE AND SMART ANTENNAS <i>Chairs:</i> G. P. Sinyavsky, S.P. Skobelev		14.30-16.30 Auditorium B
01.	Method of synthesis directional patterns of phased antenna array with arbitrary shape contour aperture G.P. Sinyavsky	14.30-14.50
02.	Enhanced algorithms for communication or navigation adaptive antenna arrays Yu.I. Choni	14.50-15.10
03.	Effectiveness of using non-coupled large-aperture radiators in phased array antennas S. P. Skobelev	15.10-15.30
04.	Linear microstrip array with serial excitation: numerical modeling and experiment Yu.Y. Bobkov, I.F. Shalyapin	15.30-15.50
05.	X-band substrate integrated waveguide antenna arrays Yu.Y. Bobkov	15.50-16.10
06.	Modeling of the characteristics of the waveguide phased array with frequency-selective shield Yu.V. Yukhanov, A.I. Semenikhin, D.V. Semenikhina	16.10-16.30
SESSION 3.1 ULTRA-WIDEBAND, BROADBAND AND MULTI-FREQUENCY ANTENNAS <i>Chair:</i> N. N. Kolchigin		14.30-16.30 Auditorium C
01.	A novel design of ultra-wideband strip-line power divider for 2-18 GHz P.O. Afanasiev, V.A. Sledkov, M. B. Manuilov	14.30-14.50
02.	Plane circular array with steering time delay of pulse excitation N.N. Kolchigin, O.V. Kazansky, He Shi, Zheng Yu, D.D. Ivanchenko	14.50-15.10
03.	Development of UWB planar dipole for near surface applications Ye.S. Maksimovitch, V.A. Badeev, K.P. Gaikovich, Yu.V. Petrukhin	15.10-15.30
04.	The frequency independence of fractal antennas V.M. Onufrienko	15.30-15.50

05.	Flat ring fractal antenna K.V. Kutsuk	15.50-16.10
06.	Wide-band dipole-slot antenna T.A. Tsaliev	16.10-16.30
SESSION 4.1 LOW-GAIN ANTENNAS <i>Chairs:</i> L.Y. Ilnitskiy, V. V. Hoblyk		14.30-16.30 Auditorium B
01.	Mathematical model of slot rhombic antenna V.V. Hoblyk, O.M. Liske	14.30-14.50
02.	Antenna system for radiomonitoring L.Y. Ilnitskiy, O.A. Shcherbyna	14.50-15.10
03.	Frame loop with switchable polarization O. Yurtsev, I. Sadovsky, G. Ptashinsky	15.10-15.30
04.	The scattering characteristics of UHF RFID-tag antenna T.N. Parfenovich, A.A. Popov	15.30-15.50
05.	The electrodinamical characteristics of two-way short-circuit slot in micro-strip disk resonator D.V. Mayboroda , S.A. Pogarsky, I.I. Saprykin, E.V. Seledkov	15.50-16.10
06.	Upgrades to the Kharkiv V. N. Karazin national university MF radar antenna V.L. Dorohov, V.T. Rozumenko, V.G. Somov, O.F. Tyrnov	16.10-16.30
Coffee break		16.30-16.50
SESSION 1.2 GENERAL ANTENNA THEORY AND ELECTROMAGNETIC FIELD <i>Chair:</i> M. I. Andriychuk		16.50-18.50 Auditorium A
07.	Synthesis of plane radiating systems according to the prescribed power radiation pattern <i>invited paper</i> M.I. Andriychuk, V.F. Kravchenko, P.O. Savenko, M.D. Tkach	16.50-17.10
08.	Electrodynamics basic sand duality principle A.M. Ivanitckiy	17.10-17.30
09.	Field symmetry, reflected in the design of antennas L.D. Nechaj	17.30-17.50
10.	Nature of extraordinary transmission through a metal screen slit filled with a metamaterial M.I. Panov, A.A. Shmat'ko	17.50-18.10
11.	Multifrequency diagnostics of inhomogeneous media K.P. Gaikovich, Ye.S. Maksimovitch, V.A. Badeev	18.10-18.30
12.	Computational model of microcoplanar strip antennas N.A. Sivozalizov	18.30-18.50

SESSION 2.2 ANTENNA ARRAYS, ADAPTIVE AND SMART ANTENNAS <i>Chairs: V.I. Turchin, D.I. Lekhovyt'skiy</i>		16.50-18.50 Auditorium C
07.	Electrodynamic analysis of disk nanoarrays E.V. Golovacheva, I.N. Ivanova, I.A. Kazmin	<i>16.50-17.10</i>
08.	Maximum likelihood estimation of broadband noise source location for unknown signal and noise power spectral densities V. I. Turchin	<i>17.10-17.30</i>
09.	Array signal processing based on interference model with incomplete correlation matrix A.A. Rodionov, V.I. Turchin	<i>17.30-17.50</i>
10.	The compact linear antenna array system of the short-wave band consisting of "butterfly" radiators V.P. Kudzin, V.N. Lozovsky, N.I. Shlyk	<i>17.50-18.10</i>
11.	A novel lens-integrated direct detection linear antenna array with narrow-gap hot-carrier bolometers for mm-wave imaging F. F. Dubrovka, D. S. Krasilnikov, F.F. Sizov, V.A. Petriakov	<i>18.10-18.30</i>
12.	Antenna arrays: waveguide layout designing automation R.R. Anamova	<i>18.30-18.50</i>
SESSION 3.2 ULTRA-WIDEBAND, BROADBAND AND MULTI-FREQUENCY ANTENNAS <i>Chair: G. P. Pochanin</i>		16.50-18.30 Auditorium C
07.	UWB antenna with high isolation between transmitting and receiving modules G.P. Pochanin, A.A. Orlenko, P.V. Kholod, S.A. Masalov, I.Ye. Pochanina	<i>16.50-17.10</i>
08.	Frequency dependences of peak amplitude of current pulse in loop covering a magneto dielectric cylinder T.N. Ogurtsova, G.P. Pochanin, Yu.B. Sidorenko, P.V. Kholod	<i>17.10-17.30</i>
09.	Loop antenna for receiving pulsed ultra-wideband electromagnetic signals P.V. Kholod	<i>17.30-17.50</i>
10.	The eight-element Vivaldi antenna array for x-band applications I.A. Fanyaev, V.P. Kudzin	<i>17.50-18.10</i>
11.	Choice of geometry of directional lobes of Vivaldi, depending on the base width of the radiation pattern and a frequency band T.G. Aslanov, A.N. Zhukov	<i>18.10-18.30</i>

SESSION 5.1 MEASUREMENTS OF ANTENNA PARAMETERS <i>Chair: A.V. Kalinin</i>		16.50-18.50 Auditorium D
01.	Double-frequency method for the instantaneous frequency and amplitude measurement O.G. Morozov, M.R. Nurgazizov, A.A. Talipov	<i>16.50-17.10</i>
02.	Double-frequency method for the determination of the central frequency, Q-factor and gain coefficient of SMBS gain spectrum O.G. Morozov, V. G. Kupriyanov, A. A. Talipov	<i>17.10-17.30</i>
03.	Measuring the performance of active phased array antennas on a compact antenna test range of collimator type “AKK1-12” S.V. Simovanian, I.E. Makushkin, A.E. Dorofeev	<i>17.30-17.50</i>
04.	Near-field measurement of levels of spatially uncorrelated sound sources using antenna arrays D.A. Orlov, V.I. Turchin, G.E. Fiks, I.Sh. Fiks	<i>17.50-18.10</i>
05.	Methods and equipment for accurate measurement of reflection coefficient in KA-band A.G. Romanov	<i>18.10-18.30</i>
06.	Device for measuring complex impedance of antennas and standing wave ratio in antenna feed line A.A. Smal	<i>18.30-18.50</i>
WELCOME PARTY		19.00
TUESDAY, SEPTEMBER 17		
PLENARY SESSION 2 INVITED PAPERS <i>Chairs: A.M. Lerer, O.N.Maslov</i>		09.00-13.30 Auditorium A
04.	Electrodynamic analysis of optical nanoplasmonic structures A.M. Lerer	<i>9.00-9.40</i>
05.	Circular polarization splitters for three-band feed of radiotelescope reflector antenna V.N. Skresanov, V.V. Glamazdin, A.A. Kirilenko, D.Yu. Kulik, M. P. Natarov, O.M. Pylypenko, L.A. Rud, A.I. Shubnyj, V.A. Zolotarev	<i>9.50-10.30</i>
Coffee break		10.30-10.50

06.	Synthesis of quasi-stationary inhomogeneous impedance plane Yu.V. Yukhanov, T.Y. Privalova, A.Yu. Yukhanov	10.50-11.30
07.	Statistical simulation of random antennas as a development of the statistical antenna theory O.N. Maslov, A. S. Rakov, A.A. Silkin	11.40-12.20
08.	Sergey Aleksandrovich Schelkunoff and his contribution to applied electrodynamics and the theory of antennas O.N. Maslov, A.V. Ryabushkin	12.30-13.30
Lunch time		13.30-14.30
SESSION 1.3 GENERAL ANTENNA THEORY AND ELECTROMAGNETIC FIELD <i>Chair: L. P. Yatsuk</i>		14.30-16.30 Auditorium A
13.	Secondary emission characteristics of resonant perfectly conducting objects of simple shape G.S. Zalevsky, O.I. Sukharevsky	14.30-14.50
14.	The frequency-energy and spatial characteristics of the coaxial-slot array V.A. Katrich, V.A. Lyashchenko, N.V. Medvedev	14.50-15.10
15.	Method for the approximate simulation of complex large-scale structures Yu. F. Zinkovskiy, Yu. K. Sydoryk, A. O. Turovskiy	15.10-15.30
16.	Radiation patterns of antennas beyond line-of-sight and errors of transmitter position finding in multistatic systems O.L. Shilyaeva, V.A. Petrov, V.N. Tkachenko, V.V. Korotkov, E.K. Pozdnyakov	15.30-15.50
17.	Thin-wire coupling element of adjacent electrodynamic volumes L. P. Yatsuk, A.A. Vusik	15.50-16.10
18.	Optimization of parameters of resonance system based on transverse slots in the rectangular waveguide with slow-wave structure N.K. Blinova, L.P. Yatsuk	16.10-16.30
SESSION 2.3 ANTENNA ARRAYS, ADAPTIVE AND SMART ANTENNAS <i>Chair: A. A. Monakov</i>		14.30-16.30 Auditorium B
13.	Curved antenna array for application to mobile communication systems Protsenko M.B., Rozhnovskiy M.V., Bannykh P., Kobylinskyi O., Iaremenko A.A.	14.30-14.50
14.	The formation of zero levels of radiation pattern liner antennas array with minimum quality of controlling elements V.M. Koshevoy, A.A. Shershnova	14.50-15.10
15.	Signal estimation in the presence of the steering vector uncertainties <i>invited paper</i> A.A. Monakov	15.10-15.30

16.	Mutual coupling between antennas used as array elements for a low frequency radio telescope P.L. Tokarsky, S.N. Yerin	15.30-15.50
17.	Generalized formula for phase synthesis of phased array sector beams A.N. Gribanov, A.N. Titov, G.F. Moseychuk, S.E. Gavrilova	15.50-16.10
18.	The influence of the screen on the characteristics of omnidirectional radiators and rarefied arrays N.N. Gorobets, A.A. Bulgakova	16.10-16.30
SESSION 7.1 REFLECTOR ANTENNAS <i>Chair: V.N. Bykov</i>		14.30-16.30 Auditorium C
01.	Compensation of gravitational deformations of large reflector antennas using radio holography A.V. Kalinin, S.S. Leschev	14.30-14.50
02.	Phase retrieval radio holography for large reflector antennas A.V. Kalinin, S.P. Moiseev	14.50-15.10
03.	Dependence of the lateral and cross-polarized radiation reflector antennas on their size and focal length N.N. Gorobets, V.I. Kiyko, V.N. Gorobets	15.10-15.30
04.	Multibeam antenna for the matrix of radiometric imaging system to imager operating V.N. Bykov, D.D. Ivanchenko, N.N. Kolchigin, T.D. Berezhnaya	15.30-15.50
05.	Design and optimization of tri-band coaxial feed horn for the radio telescope antenna A.O. Perov, V.V. Glamazdin, V.N. Skresanov	15.50-16.10
06.	Excitation of fast pulse guided wave in receiving dielectric rod antenna M.N. Legenkiy, A.Yu. Butrym	16.10-16.30
SESSION 8.1 COMPONENTS AND CIRCUITS OF MICROWAVE AND OPTOELECTRONIC COMMUNICATION SYSTEMS <i>Chair: A.A. Kirilenko</i>		14.30-16.30 Auditorium D
01.	On functional diversity of localised intervalley charge carrier transfer S.A. Kostylev, S.A. Yatsunenko, Z.L. Vintman, A.G. Yatsunenko	14.30-14.50
02.	New manufacturing technology of microwave elements and units for communication and navigation systems S.A. Kostylev, S.A. Yatsunenko, Z.L. Vintman, V.P. Djevinski, A.G. Yatsunenko	14.50-15.10

03.	Aperture oscillations, enhanced transmission and polarization plane rotation in the light of natural oscillations spectrum <i>invited paper</i> 15.10-15.30 A. Perov, A. Kirilenko, N. Kolmakova (Don), S. Prikolotin, S. Senkevich
04.	Stepped approximation technique for designing coaxial waveguide Polarizers 15.30-15.50 A.A. Kirilenko, D.Yu. Kulik, S.A. Prikolotin, L.A. Rud, S.A. Steshenko
05.	A novel wideband coaxial polarizer 15.50-16.10 F.F. Dubrovka, S. I. Piltyay
06.	Compact wide-band coaxial-to-waveguide microwave transitions for X and Ku bands 16.10-16.30 V.A. Rudakov, V.A. Sledkov, A.P. Mayorov, M.B. Manuilov
Coffee break	
16.30-16.50	
SESSION 1.4 GENERAL ANTENNA THEORY AND ELECTROMAGNETIC FIELD <i>Chair: K.A. Lukin</i>	
16.50-18.50 Auditorium A	
19.	Virtual laboratory workshop “microwave antennas and circuits” D.S. Gubsky, V.V. Zemlyakov, I.V. Mamay, G.P. Sinyavsky 16.50-17.10
20.	Application of antenna theory with nonlinear elements for MIMO analysis J.V. Vishniakova, A.I. Luchaninov 17.10-17.30
21.	The influence of antenna characteristics on information redundancy of communication channel V.G. Kozlov, A.A. Kravtchenko, V.I. Rudakov 17.30-17.50
22.	Research results of the impact of spatial and polarization value of the antennas on network capacity of wireless channels standard IEEE 802.11 V.M. Astapenya, V.Yu. Sokolov 17.50-18.10
23.	Model time-frequency resource allocation WIMAX aimed at improving the electromagnetic compatibility 18.10-18.30 A.V. Lemeshko, S.V. Garkusha
24.	Effect of antenna mutual coupling on MIMO channel capacity 18.30-18.50 V.G. Lykhograi, A.A. Shcherbina, V.S. Vovchenko, Nooh Taha Nasif
SESSION 2.4 ANTENNA ARRAYS, ADAPTIVE AND SMART ANTENNAS <i>Chair: V. I. Vasylyshyn</i>	
16.50-18.50 Auditorium B	
19	Beamspace root estimator bank for DOA estimation with an improved threshold performance V.I. Vasylyshyn 16.50-17.10
20	Robust estimation of radiation sources in an array of electric dipoles S.M. Vovk, V.F. Borulko 17.10-17.30

21	Multielement patch antenna array with operated polarization of KU-band V.V. Golovin, Y.N. Tyschuk <i>17.30-17.50</i>
22	The circuit design of excitation of the 144 element patch antenna array with operated polarization V.V. Golovin, Y.N. Tyschuk <i>17.50-18.10</i>
23	Linear antenna array of dipole series-fed antennas, with sector and isotropic radiated pattern in the magnetic plane G. Ptashinsky <i>18.10-18.30</i>
24	Linear array loop antenna with series excitation, with sector-shaped and isotropic directional pattern in electric plane G. Ptashinsky <i>18.30-18.50</i>
SESSION 8.2 COMPONENTS AND CIRCUITS OF MICROWAVE AND OPTOELECTRONIC COMMUNICATION SYSTEMS <i>Chair: O.V. Bondarenko</i>	
16.50-18.50 Auditorium B	
7	Compact bandpass waveguide filters based on modified split-ring resonators D.Yu. Kulik, S.A. Prikolotin, L.P. Mospan, S.L. Senkevich <i>16.50-17.10</i>
8	Spectral properties of a broken-symmetry two-ridged rectangular waveguide section L.P. Mospan <i>17.10-17.30</i>
9	Reflection, absorption and dielectric properties of foam specimens in rang of 2 – 4 GHz L.A. Filins'kyy <i>17.30-17.50</i>
10	Analysis of the technical state of cable lines of local connection O.V. Bondarenko, A.I. Riabushei <i>17.50-18.05</i>
11	Performance indicators of work quality of transport telecommunication primary network in Donetsk, Lviv and Odessa regions of Ukraine O.V. Bondarenko, B.Y. Kostik, D.M. Stepanov, E.V. Levenberg <i>18.05-18.20</i>
12	Polarization mode dispersion compensator based on anizotropic properties of spiral-bended single-mode fibers O.V. Bondarenko, D.G. Bagachuk <i>18.20-18.35</i>
13	Directional optical coupler based on electromagnetic connection between isotropic and anisotropic optical fibers O.M. Staschuk <i>18.35-18.50</i>
SESSION 9.1 INDUSTRIAL AND MEDICAL APPLICATIONS OF MICROWAVE TECHNOLOGY <i>Chairs: V.I. Rudakov, G. A. Morozov</i>	
16.50-18.50 Auditorium C	
1	Using quantum information theory in remote sensing systems A.V. Kuznetsova <i>16.50-17.10</i>

2	Some simplification of the acoustic antennas theory, caused by the features of environment's reaction N.N. Sulima	17.10-17.30
3	Polarization sensitive multipath propagation modeling M. B. Protsenko, S.V. Siden, A.V. Kuznetsova, A. Sokurashvili	17.30-17.50
ROUND TABLE <i>Chairs:</i> O. A. Yurtsev, Yu.E. Sedelnikov		16.50-19.15 Auditorium A
01.	Antennas, focused in the near radiated field zone. Features and technical application D.A. Vedenkin, O.V. Potapova, Yu.E. Sedelnikov	16.50-17.30
02.	Field research in near zone of antennas, carried out at Belarusian state university of informatics and radioelectronics O.A. Yurtsev, N.M. Naumovich	17.30-18.10
03.	Works department of applied electrodynamics V.N. Karazin Kharkov national university in the field theory of near area antennas N.N. Gorobets	18.10-18.30
04.	Wave processes in near zone of Hertz dipole with plane screen N.N. Gorobets, N.P. Yeliseyeva	18.30-18.45
05.	Calculation and analysis of near field of dipole with corner reflector N.P. Yeliseyeva	18.45-19.00
06.	Fresnel region asymptotics of near-field to far-field transformation: the cylindrical case Yu.V. Krivosheev, A.V. Shishlov	19.00-19.15
THURSDAY, SEPTEMBER 19		
PLENARY SESSION 3 INVITED PAPERS <i>Chairs:</i> A.A. Potapov, Y.I. Choni		09.00-13.30 Auditorium A
09.	The base of fractal antenna theory and applications: utilizing in electronic devices A.A. Potapov	9.00-9.40
10	Satellite passive microwave radiometry from beginning to the contemporary investigations V.V. Melentyev	9.50-10.30
Coffee break		10.30-10.50
11.	Development of the theory, methods and algorithms for optimal wide- and ultra wideband spatiotemporal signal processing of radio-thermal radiation V.K. Volosyuk, V.F. Kravchenko, V.V. Pavlikov	10.50-11.30

12.	Stimulating and inactivating effects of microwave processing on plant seeds and associated with them microflora and microorganisms G.A. Morozov, N.Ye. Stakhova, Ya.N. Shangaraeva	11.40-12.20
13.	Adjoint operator method and its aspects in regard to antenna synthesis Yu.I. Choni	12.30-13.30
Lunch time		13.30-14.30
SESSION 1.5 GENERAL ANTENNA THEORY AND ELECTROMAGNETIC FIELD <i>Chair: K.A. Lukin</i>		14.30-16.50 Auditorium A
25	Experimental and theoretical studies of optic – near-ir antennas based on ZNO-nanorod arrays with ag-film covering E.M. Kaidashev, N.V. Lyanguzov, A.M. Lerer, E.A. Raspopova	14.30-14.50
26	Theoretical investigation of plasmonic nanowaveguide structures and photonic crystals A.M. Lerer, I.V. Donets, G.A. Kalinchenko, P.V. Mahno	14.50-15.10
27	Effect of time intervals random errors on time-modulated antenna parameters O. Yurtsev, N. Naumovich, A. Yubko	15.10-15.30
28	Radar tomography using noise waveform, antenna with beam synthesis and MIMO principle K.A. Lukin, P.L. Vyplavin, V.V. Kudriashov, V.P. Palamarchuk, P.G. Sushenko, N.K. Zaets	15.30-15.50
29	Microwave slot antenna based on asymmetrical ridged waveguide V.V. Zemlyakov, G.F. Zargano, A.A. Gadzieva, S.V. Krutiev	15.50-16.10
30	Calculating antenna characteristics within the framework of waveguide representation of HF electromagnetic field V.V. Khakhinov	16.10-16.30
31	Electromagnetic lattice “invisibility” of the resonance cubic crystal made of magnetodielectric spheres A.I. Kozar	16.30-16.50
SESSION 6 ANALYTICAL AND NUMERICAL METHODS <i>Chair: O.M. Dumin</i>		14.30-16.50 Auditorium B
01.	Wavelet analysis of signals in problem of short range radiolocation L.A. Varyanitzza-Roshchupkina, G.P. Pochanin	14.30-14.50
02.	Numerical analyses of planar waveguide PAA with external dielectrical sheets by penetrating area method S.V. Marchenko, V.M. Morozov, A.M. Syanov	14.50-15.10
03.	Analytical methods of electromagnetic field theory in student study I.Yu. Dmitrieva	15.10-15.30

04.	Horizontal electrical dipole radiation out of a dielectric ball shielded by a spherical segment V.A. Rezunenko, S.V. Roschupkin	15.30-15.50
05.	Method of hypersingular integral equations in diffraction problem by strip grating of rectangular split-ring resonators M.E. Kaliberda, S.A. Pogarsky	15.50-16.10
06.	The approaches for increasing accuracy of N-fold differentiation of signals presented as Kotelnikov finite series P.I. Nicholas	16.10-16.30
07.	Numerical methods of structure-statistical object classification for remote sensing O.M. Dumin, V.A. Katrich, Y.A. Koltunov, I.V. Neroda	16.30-16.50
SESSION 8.3 COMPONENTS AND CIRCUITS OF MICROWAVE AND OPTOELECTRONIC COMMUNICATION SYSTEMS <i>Chair: O.V. Bondarenko</i>		14.30-16.50 Auditorium C
14	L-band airborne linear AESA design features P.A. Ageev, A.I. Sinani, G.F. Moseitchouk	14.30-14.50
15	Nanocomposites for antenna-feeder systems S.B. Bibikov, Ed.I. Kulikovskij, R.S. Sharafiev, A.V. Bychkova, A.A. Ol'khov	14.50-15.10
16	Research of electro-optical modulators usage for microwave photonic filters O.G. Morozov, T.S. Sadeev, A.A. Talipov	15.10-15.30
17	Multi-channel transmit/receive modules for X-band AESA N.V. Zhuchkova	15.30-15.50
18	Carbon nanotubes interference A.I. Luchaninov, E.A. Medvedev, S.R. Owaid	15.50-16.10
19	Waveguide and stripline devices for dividing & summing of high power. Advantages, disadvantages, design features, field of application M.G. Vitkov, I.A. Yuskevich	16.10-16.30
20	Millimeter wave BWO-oscillator with multistage grating S.S. Ponomarenko, S.A. Kishko, E.M. Khutoryan, A.N. Kuleshov, B.P. Yefimov	16.30-16.50
SESSION 9.2 INDUSTRIAL AND MEDICAL APPLICATIONS OF MICROWAVE TECHNOLOGY <i>Chairs: V.I. Rudakov, G. A. Morozov</i>		14.30-16.50 Auditorium D
4	Microwave heating. The design, modeling and monitoring of thermal processes and complexes G.A. Morozov, Ya.N. Shangaraeva	14.30-14.50

5	Noninvasive technique of investigating biological tissues based on a method of a resonant near-field microwave tomography A.I. Smirnov, D.V. Yanin, A.G. Galka, A.V. Kostrov, A.V. Strikovskiy	14.50-15.10
6	Motion sensors based on dual-frequency integrated antennas-oscillators I.N. Prudyus, V.G. Storozh	15.10-15.30
7	Microwaves can reduce the effects of ionizing radiation on biological objects B.G. Yemets, E.B. Almazova, N.L. Yemets	15.30-15.50
8	Estimation of broadband signal radiated by a single source in the presence of multiple acoustic interference sources via microphone array A.S. Ivanenkov, A.A. Rodionov	15.50-16.10
9	Experience of using antenna systems in earth-moon-earth communications V.A. Loshakov	16.10-16.30
10	Managing of microwave antennas of digital combined radio relay-troposcatter station V. Pochernyaev, V. Povhlib	16.30-16.50
Coffee break		16.50-17.10
SESSION 1.6 GENERAL ANTENNA THEORY AND ELECTROMAGNETIC FIELD <i>Chair: V.V. Ovryanikov, V.I. Djigan</i>		17.10-18.50 Auditorium A
32	Scattering of MIG-29 antenna with dielectric radome O.I. Sukharevsky, V.A. Vasilets	17.10-17.30
33	Representation of fragment of antenna radiation field by local spectrum of plane waves using parametric spectral analysis M.V. Andreev, V.F. Borulko	17.30-17.50
34	On plasma antennas (state-of-the-art, actual problems, some results) <i>invited paper</i> V.V. Ovryanikov, S.V. Buharov	17.50-18.10
35	Plasma antennas based on UHF discharge <i>invited paper</i> O.B. Dement'eva	18.10-18.30
36	Adaptive filtering algorithms with quatratized cost function for linearly constrained arrays <i>invited paper</i> V.I. Djigan	18.30-18.50
SESSION 2.5 ANTENNA ARRAYS, ADAPTIVE AND SMART ANTENNAS <i>Chair: D. I. Lekhovitskiy</i>		17.10-18.50 Auditorium B
25	Optimal restoration of radiometric images in ultra wideband radiometric systems with multi-antenna array V.V. Pavlikov	17.10-17.30

26	Statistical synthesis of chopper scanning radiometers V.K. Volosyuk, V.V. Pavlikov, S.S. Zhyla	17.30-17.50
27	Convergence rate of a number of signal processing algorithms in adaptive arrays V.P. Ryabukha, A.I. Dokhov, V.I. Zarytskiy, D.S. Rachkov, A.V. Semeniaka, Ie. A. Katiushin, V.V. Zarytskaia	17.50-18.10
28	Parametric acoustic antenna for noise-proof pulse sodar Y.N. Ulianov, V.S. Skvortsov, V.I. Vetrov, V.L. Misailov, N.G. Maksimova	18.10-18.30
29	Method of calculation cylindrical array at forming of ultrashort spatio-temporal signal A.V. Irkha, A.V. Bezverkhy, G.V. Yermakov	18.30-18.50
SESSION 7.2 REFLECTOR ANTENNAS <i>Chair: T.A. Tsaliev</i>		17.10-18.50 Auditorium A
07.	Dual-band dual-polarized log-periodic feed for reflector antenna A.N. Plastikov, V.A. Vasiliev, S. E. Chadov	17.10-17.30
08.	Initial guess selection for optimization of the given field distribution on the aperture of a leaky wave antenna S.O. Steshenko, Yu.B. Sidorenko, A.A. Kirilenko	17.30-17.50
09.	Microwave H-sectorial horn radiator with the return radiation reduced level Ya.I. Lepikh, A.A. Karpenko, N.P. Zatovskaya	17.50-18.10
10.	Precipitations influence on reflector antenna radiation characteristics O.I. Sukharevsky, S.V. Nechitaylo, G.I. Khlopov, O.A. Voitovich	18.10-18.30
11.	Features of a choice of a spherical reflector geometrical parameters Yu.N. Tyschuk	18.30-18.50
SESSION 9.3 INDUSTRIAL AND MEDICAL APPLICATIONS OF MICROWAVE TECHNOLOGY <i>Chairs: V.I. Rudakov, G. A. Morozov</i>		17.10-18.50 Auditorium C
11	RFID indoor positioning system based on read rate measurement information Yu.B. Gimpilevich, D.A. Savochkin	17.10-17.30
12	Fusion of synthetic aperture radiometer and noise waveform SAR images K.A. Lukin, V.V. Kudriashov	17.30-17.50
13	Researches of receiving-rectifying element of the rectennas for wireless power transmission systems to remote objects D.V. Gretskih, A.V. Gomozov, Sh.F.A. Al-Sammarraie, A.A. Storojev	17.50-18.10
14	Efficiency enhancement of uplink channel by means of optimizing the orientation of the base station antenna E.A. Sukachev, A.A. Pospelova	18.10-18.30

15	Influence of antenna electromagnetic parameters on radio link transmission coefficient I.Yu. Rozhnovskaya, D.Yu. Bukhan, M. Kopach, V. Pylypenko	18.30-18.50
BANQUET		19.30
FRIDAY, SEPTEMBER 20		
PLENARY SESSION 4 INVITED PAPERS <i>Chairs:</i> A. I. Malekhanov, V. V. Hoblyk		10.00-12.00 Auditorium A
14.	Development of the theory of nanoantennas based on modulated plasmon-polariton structures V.V. Hoblyk	10.00-10.40
15.	Signal coherence and coherence-induced effects on array output in multimode transmission channels A.I. Malekhanov, A.V. Smirnov	10.50-11.20
16.	Recent advances in terahertz science at Queen Mary University of London R. F. Dubrovka, O. Y. Sushko, T. M. Loftus, B. Yang, K. Shala, R. S. Donnan	11.20-12.00
Coffee break		12.10-12.30
SESSION 1.7 GENERAL ANTENNA THEORY AND ELECTROMAGNETIC FIELD <i>Chair:</i> V.V. Ovsyanikov		12.30-13.30 Auditorium A
37.	Advantages of multi-look SAR processing D. M. Vavriv, O.O. Bezvesilniy	12.30-12.50
38.	Development of the planar low-voltage cyclotron resonance maser with a sheet helical electron beam S.A. Kishko, S.S. Ponomarenko, A.N. Kuleshov, B.P. Yefimov	12.50-13.10
39.	Transition radiation of a relativistic point charge on the transverse orientation linear antenna S.D. Prijmenko	13.10-13.30
SESSION 2.6 ANTENNA ARRAYS, ADAPTIVE AND SMART ANTENNAS <i>Chair:</i> A.A. Monakov		12.30-13.30 Auditorium B
30.	The printed leaky-wave array D.N. Borisov, A.I. Klimov, Yu.B. Nechaev	12.30-12.50

31.	On the maximum directivity of surface wave along the impedance flange of finite array of plane waveguides V.V. Scherbinin, K.S. Bakhtinova	<i>12.50-13.10</i>
32.	Estimation of continuous energy spectra of random echoes in coherent pulse radar D.S. Rachkov, A.V. Semeniaka, D.I. Lekhovyt'skiy, D.V. Atamanskiy	<i>13.10-13.30</i>
SESSION 4.2 LOW-GAIN ANTENNAS <i>Chair: L.Y. Ilnitskiy</i>		12.30-13.30 Auditorium C
07.	Small VHF band antenna L.M. Lobkova, S.E. Marchenko	<i>12.30-12.50</i>
08.	Optimization of geometric parameters of antenna with a logarithmic frequency L.M. Lobkova, V.V. Golovin, L.A. Lashkova	<i>12.50-13.10</i>
09.	Parametric effects in not directed antennas, installed on the helicopter fuselage V.A. Ivanov, A.S. Zadorozhniy	<i>13.10-13.30</i>
SESSION 5.2 MEASUREMENTS OF ANTENNA PARAMETERS <i>Chair: Prof. A.V. Kalinin</i>		12.30-13.30 Auditorium D
07.	Properties of E-cross for six-port measurements V.A. Karlov, V.F. Borulko, M.V. Andreev	<i>12.30-12.50</i>
08.	The antenna for standards of IEEE 802.11 A/B/G/N A.A. Savochkin, A.A. Nudga	<i>12.50-13.10</i>
09.	Phased array antenna calibration problems, including in-service and multi-element PAA calibration Y.V. Korotetskiy, A.M. Shitikov, V.V. Denisenko	<i>13.10-13.30</i>
CLOSING CEREMONY		14.00 Auditorium A

