

X ANNIVERSARY INTERNATIONAL CONFERENCE
on
ANTENNA THEORY
AND TECHNIQUES
ICATT'2015

Dedicated to 95 year jubilee of Prof. Yakov S. Shifrin

Conference program

April 21 – 24, 2015
Kharkiv, Ukraine

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- IEEE Ukraine (Moscow) Joint Chapter AP
- “Physical Bases of Instrumentation”, International Journal (Moscow, Russian Federation)

WELCOME TO
X ANNIVERSARY INTERNATIONAL CONFERENCE
ON ANTENNA THEORY AND TECHNIQUES

ICATT '2015

April 21 – 24, 2015

Dear colleagues, dear friends,

We are glad to greet all the participants of X International conference on antenna theory and techniques (ICATT'2015).

Ukraine goes through the difficult time now. The long term acts of war in the South-East of Ukraine have already brought huge destructions, caused the million flows of refugees, and sharply complicated the economical situation in Ukraine. Especially bitter is death of many military and civil people.

Nevertheless, science lives and develops. New scientific journals have been published; theses have been protected for candidate and doctoral degrees. A lot of new interesting results have been obtained for the last two years in the field of antennas and microwave engineering, which are to be discussed at ICATT'2015.

We are holding this anniversary conference in Kharkiv being the center of radio electronics in Ukraine. Here are located six big high schools, whereat future radio specialists are trained; here are lumped a number of research and scientific institutes of radioelectronic profile, particularly, a few academic institutes, such as the O.Ya. Usikov Institute of Radio physics and Electronics, Institute of Radio Astronomy, Institute of Ionosphere. Majority of the city industry is related to radio electronics. Located in Kharkiv are also the Academy of Sciences of Applied Radio Electronics and the Ukrainian National Antenna Association, which are the main organizers of ICATT'2015.

The Program Committee of ICATT'2015 has totally accepted 127 papers for presentation at plenary and routine sessions.

As usually, special attention is paid to selection of plenary and invited papers. Here, we would like to mention the presentation submitted by a big group of scientists (83 authors) from 8 countries. This paper is devoted to the urgent problem of creation of giant phased antenna arrays for modern radio telescopes. It causes interest because it shows the accepted by European Union system of scientific research organization, when scientific establishments of different countries are involved in the work on solving large-scale scientific problems.

In conclusion, we would like to thank all the sponsors for financial and technical support of ICATT'2015, particularly the European Microwave Association that granted both 1.000,00 Euro for awarding young scientists in the best presentation competition and 1.000,00 for ICATT'2015 holding and its Proceedings publishing, and also IEEE for the financial support and permission to publish ICATT'2015 Proceedings at the IEEE Xplore[®] Database.

We are grateful to the Organizing Committee and Working Group, especially Dr. Nina Maksimova for preparation of our conference.

And finally we thank all the ICATT'2015 participants and particularly those who arrive to Kharkiv notwithstanding all the complicacies of today situation in Ukraine.

We wish the ICATT'2015 attendees to have a fruitful work and to strengthen friendly links.

We are sure that ICATT'2015 will essentially favor the further development of microwave science.

Honorary Chairman
Chairman

Yakov S. Shifrin
Peter L. Tokarsky

TIMETABLE

	Time	Auditorium A	Auditorium B	Auditorium C	Auditorium D
Tuesday, April 21	8.30-10.00	Registration (Hall of KhNURE, the 3 rd floor)			
	10.00-10.30	Opening Ceremony			
	10.30-11.50	Plenary Session 1.1			
	11.50-12.20	Coffee break (Cafeteria, the 3 rd floor)			
	12.20-13.00	Plenary Session 1.2			
	13.00-13.30	General Conference Picture (by the entrance to the main KhNURE building)			
	13.30-14.30	Lunch Time			
	14.30-16.30		Session 1.1 General antenna theory, numerical and analytical methods	Session 2.1 Antenna arrays, adaptive and smart antennas	Session 3.1 Reflector anten- nas and other types of radar antennas
	16.30-16.50	Coffee break (Cafeteria, the 3 rd floor)			
	16.50-19.30	Session 1.2 General an- tenna theory and electromagnetic field	Session 1.2 s General an- tenna theory, numerical and analytical meth- ods	Session 2.2 Antenna arrays, adaptive and smart antennas	Session 3.2 Reflector anten- nas and other types of radar antennas

TIMETABLE

Wednesday, April 22	9.00-11.00	Plenary Session 2.1			
	11.00-11.30	Coffee break (Cafeteria at the third floor)			
	11.30-13.30	Plenary Session 2.2			
	13.30-14.30	Lunch Time			
	14.30-16.30	Session 1.3 General antenna theory and electromagnetic field	Session 1.3 General antenna theory, numerical and analytical methods s	Session 2.3 Antenna arrays, adaptive and smart antennas Ant	Session 4.1 Low-gain and communication antennas, printed antennas -
	16.30-16.50	Coffee break (Cafeteria, the 3 rd floor)			
	16.50-18.50	Session 1.4 General antenna theory and electromagnetic field	Session 1.4 General antenna theory, numerical and analytical methods	Session 5.1 Feeder circuits and their elements, microwave components and materials, antenna radomes and absorbers, antenna measurements	Session 6.1 Industrial and medical applications of microwave technologies

TIMETABLE

Thursday, April 23	9.00-13.30		Session 4.2 Low-gain and communication antennas, printed antennas	Session 5.2 Feeder circuits and their elements, microwave components and materials, antenna radomes and absorbers, antenna measurements	Session 6.2 Industrial and medical applications of microwave technologies
	11.00-11.20	Coffee break (Cafeteria, the 3 rd floor)			
	11.20-13.30		Session 4.3 Low-gain and communication antennas, printed antennas	Session 5.3 Feeder circuits and their elements, microwave components and materials, antenna radomes and absorbers, antenna measurements	Session 6.3 Industrial and medical ap- plications of microwave technologies
	13.30-15.00	Lunch Time			
	15.00-17.30	Session dedicated to Prof. Yakov S.Shifrin's jubilee			
	17.30	Banquet			
Friday, April 24	10.00-11.20	Plenary Session 4.1			
	11.20-11.40	Coffee break (Cafeteria, the 3 rd floor)			
	11.40-13.00	Plenary Session 4.2			
	13.00-14.00	Closing Cere- mony & Awarding			

TUESDAY, APRIL 21		
REGISTRATION	8.00-10.00 Hall of KhNURE (the 3rd floor)	
OPENING CEREMONY	10.00-10.30 Auditorium A	
PLENARY SESSION 1 INVITED PAPERS <i>Chairs: P.L.Tokarsky, D. M. Vavriv</i>	10.30-13.00 Auditorium A	
1	STATE-OF-THE-ART OF THE LOW FREQUENCY RADIO ASTRONOMY, RELEVANT ANTENNA SYSTEMS AND INTERNATIONAL COOPERATION IN UKRAINE A. Konovalenko, P. Zarka, L. Sodin, V. Zakharenko, O. Ulyanov, M. Sidorchuk, S. Stepkin, P. Tokarsky, A. Stanislavsky, N. Kalinichenko, V. Koliadin, V. Melnik, V. Dorovskyy, V. Shepelev, A. Koval, I. Bubnov, S. Yerin, I. Vasylieva, A. Gridin, V. Kulishenko, A. Reznik, A. Reznichenko, G. Kvasov, D. Muka, A. Khristenko, G. Litvinenko, H.O. Rucker, M. Panchenko, G. Fischer, A. Lecacheux, L. Denis, A. Coffre, J.-M. Griebmeier, M. Tagger, J. Girard, D. Charrier, V. Ryabov, G. Mann, A. Brazhenko, V. Koshovyy	10.30-11.10
2	NENUFAR : INSTRUMENT DESCRIPTION AND SCIENCE CASE P. Zarka, M. Tagger, L. Denis, J. N. Girard, A. Konovalenko, M. Atemkeng, M. Arnaud, S. Azarian, M. Barsuglia, A. Bonafede, F. Boone, A. Bosma, R. Boyer, M. Branchesi, C. Briand, B. Cecconi, S. Célestin, D. Charrier, E. Chassande-Mottin, A. Coffre, I. Cognard, F. Combes, S. Corbel, C. Courte, A. Dabbech, S. Daiboo, R. Dallier, C. Dumez-Viou, M.N. El Korso, E. Falgarone, I. Falkovych, A. Ferrari, C. Ferrari, K. Ferrière, C. Fevotte, A. Fialkov, M. Fullekrug, E. Gérard, J.-M. Griebmeier, B. Guiderdoni, L. Guillemot, J. Hessels, L. Koopmans, V. Kondratiev, L. Lamy, T. Lanz, P. Larzabal, M. Lehnert, F. Levrier, A. Loh, G. Macario, J.-J. Maintoux, L. Martin, D. Mary, S. Masson, M.-A. Miville-Deschenes, D. Oberoi, M. Panchenko, M. Pandey-Pommier, A. Petiteau, J.-L. Pinçon, B. Revenu, F. Rible, C. Richard, H. O. Rucker, P. Salomé, B. Semelin, M. Serylak, M. Sidorchuk, O. Smirnov, B. Stappers, C. Taffoureau, C. Tasse, G. Theureau, P. Tokarsky, S. Torchinsky, O. Ulyanov, W. van Driel, I. Vasylieva, J. Vaubaillon, F. Vazza, S. Vergani, M. Was, R. Weber, V. Zakharenko	11:10-11:50
Coffee break		11:50-12:10
3	RECENT ADVANCES IN RADAR SYSTEMS D. M. Vavriv, V. A. Volkov	12:10-12.50
GENERAL CONFERENCE PICTURE (by the main entrance to the KhNURE building)		13:00-13:30
Lunch time		13.30-14.30

SESSION 1.1 - GENERAL ANTENNA THEORY, NUMERICAL AND ANALYTICAL METHODS <i>Chairs: A. V. Polyarus, A. Butrym</i>		14:30-16:30 Auditorium B
1	TIME DOMAIN ANALYSIS OF TRANSIENT RADIATION OF A DIPOLE IN A DIELECTRIC SPHERE A. Butrym, M. Legenkiy	14:30-14:50
2	BUILDING GREEN'S AFFINORS OF LAYERED AREAS V. Morozov, V. Magro	14:50-15:10
3	METHODS OF STUDYING THE ANTENNAS SYNTHESIS PROBLEM IN PRACTICAL LESSONS A. V. Polyarus, A. V. Lebedynskiy	15:10-15:30
4	NEAR FIELD OF HERTZIAN DIPOLE EXCITED BY IMPULSE CURRENT O. M. Dumin, V. A. Plakhtii, I. S. Volvach, S.V. Pshenichnaya, O.O. Dumina	15:30-15:50
5	TRANSIENT ELECTROMAGNETIC FIELD PROPAGATION THROUGH NONLINEAR MEDIUM IN TIME DOMAIN O. M. Dumin, O. A. Tretyakov, R. D Akhmedov., O. A. Dumina	15:50-16:10
6	SYNTHESIS OF IMPEDANCE STRIP FOR DECOUPLING THE RECEIVING AND TRANSMITTING ANTENNAS V.I. Gladkikh	16:10-16:30
SESSION 2.1 - ANTENNA ARRAYS, ADAPTIVE AND SMART ANTENNAS <i>Chairs: A. V. Kobzev, V.P. Riabukha</i>		14.30-16.30 Auditorium C
1	ACCURACY OF THE TARGET DIRECTION FINDING UNDER EXTERNAL NOISE IN BIDIMENSIONAL ADAPTIVE ANTENNA ARRAYS V.P. Riabukha, D.S. Rachkov, A.V. Semenyaka, E.A. Katyushin	14.30-14.50
2	ELECTROMAGNETIC INTERACTION IN METALLIC AND PLASMA ANTENNA ARRAYS V.V. Ovsyanikov, S.N. Moroz	14.50-15.10
3	APPLICATION OF RING ANTENNA ARRAYS FOR THE PHASE DIRECTION FINDING OF RADIO SIGNAL SOURCES WITH UNKNOWN MODULATION A. V. Kobzev, M. V. Murzin	15.10-15.30
4	COMPARATIVE ANALYSIS OF TWO VARIANTS OF SMART ANTENNAS FOR BASE STATION OF MOBILE RADIO COMMUNICATION A. V. Kobzev, V. V. Romanenko, M. V. Murzin	15.30-15.50
5	METHOD OF DIRECTIVITY CALCULATIONS FOR RECTANGULAR ARRAYS P.Fedorov	15.50-16.10
6	METHOD FOR FORMING SPACE-TIME WAVEFORMS WITH RECTANGULAR ENVELOPE USING MULTIFREQUENCY ARRAY A. Shevchenko, V. Tyutyunnik, I. Trofimov, M. Ivanec, A. Filippenkov	16.10-16.30
SESSION 3.1 - REFLECTOR ANTENNAS AND OTHER TYPES OF RADAR ANTENNAS <i>Chairs: O. I. Sukharevsky, S. A. Provalov</i>		14.30-16.30 Auditorium D
1	ENERGY CHARACTERISTICS OF THE SLOT SYSTEM IN THE SCREEN OF COAXIAL LINE WITH CONTROLLED TERMINATION V. A. Katrich, V. A. Lyashchenko, N. V. Medvedev	14.30-14.50

2	THE INFLUENCE OF ASYMMETRIC WATER LAYER ON RADIATION CHARACTERISTICS OF REFLECTOR ANTENNA O. I. Sukharevsky, S. V. Nechitaylo, O. A. Voitovych, G. I. Khlopov	14.50-15.10
3	SCATTERING CHARACTERISTICS COMPUTATION METHOD FOR CORNER REFLECTORS IN ARBITRARY ILLUMINATION CONDITIONS O. I. Sukharevsky, V. A. Vasilets and S. V. Nechitaylo	15.10-15.30
4	INTEGRAL-DIFFERENTIAL MODELS OF CHARACTERISTIC FUNCTIONS OF 3D TERAHERTZ FMCW RADAR M.A.Kosovets, O.I.Pavlov, L.N.Tovstenko	15.30-15.50
5	ULTRAWIDEBAND LINEARLY POLARIZED ANTENNAS OF VIVALDI TYPE FOR GROUND PENETRATING RADAR G. P. Pochanin, N. M.Kaluzhny, S. A. Masalov, . Y.E.Pochanina	15.50-16.10
6	COMBINED RADAR-ACOUSTIC ANTENNA FOR APPLICATION IN WIND-POWER ENGINEERING Ulianov Yu.N., Misaylov V.L	16.10-16.30
Coffee break		16.30-16.50
SESSION 1.2 - GENERAL ANTENNA THEORY, NUMERICAL AND ANALYTICAL METHODS <i>Chairs:</i> N. N. Gorobets, O.I. Sukharevskiy		16.50-19.30 Auditorium B
7	UNIFIED FAST NUMERICAL ALGORITHM FOR CALCULATION OF EM FIELD OF DIPOLE LOCATED AT ARBITRARY DISTANCE FROM THE BOUNDARY OF DIELECTRIC MEDIA O.I. Sukharevsky, G.S. Zalevsky	16.50-17.10
8	CALCULATION OF NEAR FIELD OF DIPOLE PLACED ABOVE RECTANGULAR SCREEN N. P. Yeliseyeva, N. N. Gorobets. A. N. Gorobets	17.10-17.30
9	DISTORTIONS OF RECEIVING ANTENNA RADIATION PATTERNS ON TROPOSPHERIC PATHS O. L. Shilyaeva and V. A. Petrov	17.30-17.50
10	METHOD OF ACCOUNTING FOR ANTENNA RADIATION PATTERN WHEN ESTIMATING ELECTROMAGNETIC ACCESSIBILITY AND COMPATIBILITY OF WIDE-BAND RADIO MONITORING STATIONS Kalyuzhniy N.M., Kolesnik V.I., Chernov A.B., Nikolaev I.M.	17.50-18.10
11	WAYS OF CALCULATING THE ELECTROMAGNETIC FIELD INTENSITY FOR ASSESSMENT OF ELECTROMAGNETIC COMPATIBILITY OF RADIO-MONITORING STATIONS Kalyuzhniy N. M., Kovshar V. A., Semenov G. N., Chernov A. B., Galkin S. A.	18.10-18.30
12	MATHEMATICAL MODEL OF THE MICROSTRIP RADIATOR BASED ON THIN-WIRE APPROXIMATION OF METAL PATCH V.V. Kizimenko, A.V. Ulanouski	18.30-18.50
13	HODOGRAPH OF ANTENNA'S LOCAL PHASE CENTER: COMPUTATION AND ANALYSIS Tchoni, Yu. I.	18.50-19.10
14	ENGINEERING STYLE OF THINKING AS OBJECTIVE OF TECHNICAL EDUCATION Tchoni, Yu. I.	19.10 -19.30

SESSION 2.2 - ANTENNA ARRAYS, ADAPTIVE AND SMART ANTENNAS <i>Chairs: V. V. Pavlikov, V.I. Vasylyshyn</i>		16.50-19.00 Auditorium C
7	SENSOR ARRAY SIGNAL PROCESSING WITH PSEUDO-NOISE RE-SAMPLING V.I. Vasylyshyn	16.50-17.10
8	OPTIMAL SIGNAL PROCESSING FOR RADIOMETRIC IMAGING WITH MULTI-ANTENNA & MULTI-BAND PASSIVE RADARS V. V. Pavlikov, S. S. Zhyla, Nguen Van Kiem, And O. V. Odokienko	17.10-17.30
9	OPTIMAL ALGORITHM FOR 3D IMAGING OF SPATIALLY EXTENDED OBJECTS V. K. Volosyuk, V. V. Pavlikov, Vu Ta Cuong, , O. M. Tymoshchuk	17.30-17.50
10	THEORY QUESTIONS OF WAVEGUIDE-SLOT STRUCTURES WITH DIELECTRIC INSERTIONS L. P. Yatsuk, N. K. Blinova, A. F. Lyakhovsky, A. A. Lyakhovsky, A. V. Selutin	17.50-18.10
11	THE INFLUENCE OF AIR GAPS AT SLOWDOWN OF MAIN LM-MODE IN A WAVEGUIDE WITH MULTILAYER DIELECTRIC FILLING A. A. Lyakhovsky, A. F. Lyakhovsky	18.10-18.30
SESSION 3.2 - REFLECTOR ANTENNAS AND OTHER TYPES OF RADAR ANTENNAS <i>Chairs: V.N. Bykov, S.A. Provalov</i>		16.50-19.30 Auditorium D
7	MULTIBEAM ANTENNA FOR THE MATRIX RADIOMETRIC IMAGING SYSTEMS V.N. Bykov, D.D. Ivanchenko, N.N. Kolchigin, V.N. Radzikhovsky, T.D. Berezhnaya	16.50-17.10
8	WAVEGUIDE ANTENNA WITH A HYBRID DIELECTRIC INSERTION V. Plakhtiy, I. Ivanchenko, M. Khruslov, N. Popenko	17.10-17.30
9	THE ANTENNA SYSTEM OF THE COMPACT NONLINEAR LOCATOR FOR THE WIDE APPLICATION M. Khruslov, N. Popenko, V. Pulavskii, L. Shcherbakova	17.30-17.50
10	PLANAR DIFFRACTION RADIATION ANTENNA WITH COMBINED GRATING S. A. Provalov and A. V. Hnatovskyi	17.50-18.10
11	ELECTRODYNAMIC CHARACTERISTICS OF THE DISCRETELY--CURVILINEAR FRACTAL MONOPOLE K. Kutsuk	18.10-18.30
12	ANTENNA DEVICE FOR RADIO ACOUSTIC SENSING WITH PASSIVE RADIOLOCATION S. I. Babkin, Y. G. Tolstykh	18.30-18.50
13	BLIND ESTIMATION OF SPECKLE VARIANCE IN SYNTHETIC AP-ERTURE RADAR IMAGES V. Abramova, R. Kozhemiakin, S. Abramov, V. Lukin, A. Zelensky, K. Egiazarian	18.50 -19.10
14	FIRST ANTENNAS FOR RELAY STATIONS V. I. Slyusar	19.10-19.30

WEDNESDAY, APRIL 22		
PLENARY SESSION 2 INVITED PAPERS <i>Chairs: B.M.Levin, M.B. Protsenko</i>		09.00-13.30 Auditorium A
4	ANALYTICAL SOLUTION OF PROBLEMS OF MODULATED IMPEDANCE AND DIELECTRIC STRUCTURES EXCITATION V. V. Hoblyk, V. A. Pavlysh, N.M. Hoblyk, I.V. Nychai	9.00-9.40
5	ANTENNAS WITH ROTATIONAL SYMMETRY B.M.Levin	9.40-10.20
6	COMBINING TARGET DETECTION AGAINST THE BACKGROUND JAMMING SIGNALS AND JAMMING SIGNALS DOA ESTIMATION D.I. Lekhovytsky, D.V. Atamanskiy, V.P. Riabukha, D.S. Rachkov, A.V. Semeniaka	10.20-11.00
Coffee break		11.00-11.30
7	SUMMARY OF RESULTS IN THE FIELD OF SMALL ELEMENT ANTENNA ARRAYS FOR MOBILE COMMUNICATION SYSTEMS M.B. Protsenko, C.V. Nesteruk, I.Yu. Rozhnovskaya, A.A. Iaremenko	11.30-12.10
8	REVIEW OF MODERN ALGORITHMS FOR HIGH RESOLUTION IMAGING WITH PASSIVE RADAR V. K. Volosyuk, V. F. Kravchenko, B. G. Kutuza, V. V. Pavlikov	12. 10-12.50
9	DEVELOPMENT OF MICROWAVE PROCESSES AND COMPLEXES AT THE PRESENT STAGE, G. A. Morozov , O. G. Morozov	12.50-13.30
Lunch time		13.30-14.30
SESSION 1.3 - GENERAL ANTENNA THEORY, NUMERICAL AND ANALYTICAL METHODS <i>Chairs: L. G. Kornienko, A.G. Nerukh</i>		14.30-16.30 Auditorium B
15	POLARIZATION FIELD STRUCTURE OF RETRODIRECTIVE ANTENNA ARRAYS WITH PHASE FLUCTUATIONS OF THE ORTHOGONAL FIELD COMPONENTS L. G. Kornienko and Y. S. Shifrin	14.30-14.50
16	RADIATION OF ACCELERATING PULSES WITH A SPECIFIED ENVELOPE A.G. Nerukh, D.A. Zolotariov, O.V. Kuryzheva	14.50-15.10
17	ALGORITHM OF THE FINITE ELEMENT METHOD FOR ANALYSIS OF PLANAR INHOMOGENEOUS ABSORBING DIELECTRIC COVER, R. Gabdullina, N. Smolnikova, S. P. Skobelev	15.10-15.30
18	THE FIELD DIFFRACTION OF CURRENT RING ON A SPIRAL CONDUCTIVE SPHERE WITH A HOLE V.A.Rezunenko	15.30-15.50
19	THE NUMERICAL ANALYSIS OF THE MULTIFUNCTIONAL PROCESS OF SCATTERING AND GENERATION OF OSCILLATIONS BY NONLINEAR LAYERED MEDIA L.Angermann, V.V. Yatsyk	15.50-16.10

20	AN APPROXIMATION ALGORITHM TO THE SOURCEWISE GREEN'S FUNCTION IN THE D'ALEMBERT EQUATION FOR THE CIRCULAR WAVEGUIDE S.D. Prijmenko, L.A. Bondarenko	16.10-16.30
SESSION 2.3 - ANTENNA ARRAYS, ADAPTIVE AND SMART ANTENNAS <i>Chair: V.I.Rudakov, D.I.Lekhovitskiy</i>		14.30-16.10 Auditorium C
12	POWER DELIVERY SYSTEM IN A SUBARRAY OF GIANT UKRAINIAN RADIO TELESCOPE S.N. Yerin, I.N. Bubnov, A.A. Konovalenko, A.D. Khristenko, A.A. Gridin	14.30-14.50
13	NEW SOFTWARE AND HARDWARE CONTROLLING COMPLEX OF THE UTR-2 RADIO TELESCOPE V.V.Bortsov, V.M.Lisachenko, A.M.Reznichenko, M.A. Sidorchuk, V.N. Tkachov	14.50-15.10
14	ADAPTIVE CONTROL OF THE SIGNAL AT THE OUTPUT OF ADAPTIVE ANTENNA IN DIGITAL CHANNEL OF TROPOSPHERE COMMUNICATION V.I. Rudakov, A.Y. Gupalo And A.N. Bychkov	15.10-15.30
15	METHOD FOR CALCULATION OF RESULTANT RADIATION PATTERN OF ASYMMETRICAL ANTENNA ARRAY V. P. Bunakov, V. I. Rudakov	15.30-15.50
16	THE RADIO FREQUENCY POWER SUPPLY SYSTEM FOR UNMANNED AERIAL VEHICLES D.V. Gretskih, A.V. Gomozov, N.M. Tsikalovskiy, E.V. Sharapova	15.50-16.10
17	A PHASED ANTENNA ARRAY OF HORIZONTALLY POLARIZED RADIATORS NEAR A CYLINDRICAL SURFACE I.A. Fanyaev, V.P. Kudzin	16.10-16.20
18	INFLUENCE OF AMPLITUDE DISTRIBUTION WITHIN A MODULE AND OVER A SYSTEM OF MODULES ON THE PATTERN OF MULTI-MODULE ANTENNA ARRAY A. P. Joubko, N. M. Naumovich and O. A. Yurtsev	16.20-16.30
19	PLANAR CENTER-FED LEAKY-WAVE ANTENNA ARRAYS FOR MILLIMETER WAVE SYSTEMS Y.B. Nechaev, D.N. Borisov, A.I. Klimov, I.V. Peshkov	16.30-16.40
SESSION 4.1 - LOW-GAIN AND COMMUNICATION ANTENNAS, PRINTED ANTENNAS <i>Chair: K.S. Vasyuta, M. B. Protsenko</i>		14.30-16.30 Auditorium D
1	ANALYSIS OF THE SPACE-POLARIZATION STRUCTURE OF THE FIELD NEAR THE ANTENNA OF MOBILE TERMINAL M. B. Protsenko, S.V. Siden	14.30-14.50
2	INTERACTION OF A HUMAN HEAD MODEL WITH THE ANTENNA OF THE MOBILE TERMINAL M. B. Protsenko, L. I. Stepanova, O. O. Perley, V. G. Ishchenko	14.50-15.10
3	EXPEDIENCE OF APPLICATION OF MIMO SYSTEMS OF DIGITAL COMMUNICATION FOR COMPLEX CHAOTIC SIGNAL TRANSMISSION K.S. Vasyuta, I.V. Zakharchenko, S.V. Ozerov	15.10-15.30
4	MODIFIED ACCELERATING LENS AS A MEANS OF INCREASING THE THROUGHPUT, RANGE AND NOISE IMMUNITY OF IEEE 802.11 SYSTEMS V. M. Astapenya And V. Yu. Sokolov	15.30-15.50

5	EXPERIMENTAL STUDY OF BISPECTRUM-BASED ENCODING IN RADIO COMMUNICATION SYSTEM V.V. Naumenko, V.F. Solodovnik, A.V. Totsky, A.A. Zelensky, J.T. Astola	15.50-16.10
6	MODELLING OF PRINTED ANTENNAS FOR TELECOMMUNICATION SYSTEMS S. V. Bukharov, L. A. Filinskiy	16.10-16.30
Coffee break		16.30-16.50
SESSION 1.4 - GENERAL ANTENNA THEORY, NUMERICAL AND ANALYTICAL METHODS <i>Chairs: S. A. Pogarsky, A. A. Zvyagintsev</i>		16.50-18.50 Auditorium B
21	ELECTROMAGNETIC INTERACTION OF A SINGLE STRIP WITH A PLANE SEMI-INFINITE GRATING M. E. Kaliberda, S. A. Pogarsky	16.50-17.10
22	THE INFLUENCE OF THE SHORTING-VIAS ON THE INTEGRAL CHARACTERISTICS OF A MICROSTRIP RESONATOR D.V. Mayboroda, S.A. Pogarsky	17.10-17.30
23	MODELLING OF A MIMICRY CLOAK FOR THE ELLIPTICAL CYLINDER TO LOOK LIKE CIRCULAR V. I. Vyunnik and A. A. Zvyagintsev	17.30-17.50
24	MODIFIED ALGORITHM FOR ANTENNA DIAGRAMM SIDE LOBES LEVEL SUPPRESSION WITH MINIMUM QUANTITY OF CONTROLLING ELEMENTS V.M. Koshevyy, A.A. Shershnova	17.50-18.10
25	THEORETICAL RESEARCH OF OPTICAL NANOSTRUCTURED FREQUENCY SELECTIVE SURFACES E.V. Golovacheva, I.N. Ivanova, A.M. Lerer, P.V. Makhno, E.A. Tsvetyansky [†]	18.10-18.30
26	USING MIND MAPS AS A NEW METHOD OF TEACHING STUDENTS OF RADIO ENGINEERING SPECIALTIES D. A. Vedenkin, E. A. Borisova, A. R. Nasybullin	18.30-18.50
27	I/Q-DEMODULATION OF THE ODD ORDER V.I. Slyusar	18.50-19.10
SESSION 5.1 - FEEDER CIRCUITS AND THEIR ELEMENTS, MICROWAVE COMPONENTS AND MATERIALS, ANTENNA RADOMES AND ABSORBERS, ANTENNA MEASUREMENTS <i>Chairs: A. A. Kirilenko, V.F. Borulko</i>		16.50-19.50 Auditorium C
1	WAVEGUIDE E-PLANE T-JUNCTION WITH RESONANCE COUPLING BETWEEN SHOULDERS S. L. Berdnik, M. V. Nesterenko and Yu. M. Penkin, V.A.Katrish	16.50-17.10
2	RECTANGULAR WAVEGUIDE SECTION WITH A PAIR OF ANTIPODAL POSTS: SPECTRAL CHARACTERISTICS L. P. Mospan, S. A. Prikolotin, A. A. Kirilenko	17.10-17.30
3	COMPACT POLARIZATION ROTATORS BASED ON THE DIAPHRAGMS WITH SEVERAL RECTANGULAR APERTURES D. Yu. Kulik, A. O. Perov, L. P. Mospan	17.30-17.50
4	ELECTROMAGNETIC MODELS OF E-PLANE JUNCTIONS FOR SIX-PORT MEASUREMENTS V.A. Karlov, M.V. Andreev, V.F. Borulko	17.50-18.10
5	ROBUST ESTIMATION OF FAR-FIELD RADIATION PATTERN FROM NEAR-FIELD MEASUREMENTS BY DUAL METHOD OF MINIMUM SPATIAL EXTENT Vovk S.M., Borulko V.F.	18.10-18.30

6	APPLICATION OF CROSS-SHAPE ANALYZER OF COMPLEX REFLECTION COEFFICIENT FOR MEASURING ANTENNA AND WAVEGUIDE DEVICES V.A. Karlov, V.D. Ryabchiy	18.30-18.50
7	ELECTRODYNAMIC MODEL OF THE THREE-BAND FEED FOR VLBI2010 RADIOTELESCOPE REFLECTOR A. A. Kirilenko, A. O. Perov, S. O. Steshenko, V. N. Skresanov	18.50-19.10
8	PATTERNS OF THE THREE-BAND FEED FOR A SMALL VLBI RADIOTELESCOPE REFLECTOR ANTENNA V. N.Skresanov, V. V.Glamazdin, M.P.Natarov, A. I. Shubhy,	19.10-19.30
SESSION 6.1 - INDUSTRIAL AND MEDICAL APPLICATIONS OF MICROWAVE TECHNOLOGIES <i>Chairs: G. A. Morozov , A.A. Kontar</i>		16.50-19.10 Auditorium D
1	MICROWAVE FIELD ENERGY AS BAKER'S YEAST METABOLISM REGULATOR G. A. Morozov and P. P. Krynitskiy	16.50-17.10
2	USE OF ELECTROMAGNETIC FIELDS OF EXTREMELY HIGH FREQUENCY BAND FOR PRODUCTIVITY IMPROVEMENT OF CEREAL CROPS G.A. Morozov, N.E. Stakhova, I.P. Talanov, P.I. Talanov, A.V. Stepura	17:10-17:30.
3	CALCULATION OF EXPERIMENTAL APPARATUS FOR BIOLOGICAL OBJECT IRRADIATION BY IMPULSE ELECTROMAGNETIC FIELD O. M. Dumin, Y.G. Shckorbatov, A.I. Chernov, V. A. Katrich	17.30-17.50
4	SEED PRE-TREATMENT OF GRAIN AND VEGETABLE CROPS BY MICROWAVE ENERGY A.A. Kontar, G.N.Valevakhin, Yu.I. Buryak, V.V. Bespalko, Yu.Ye. Ogurtsov, O.I.Onischenko	17.50-18.10
5	MULTIFUNCTIONAL CONVECTIONAL MICROWAVE UNIT E. R. Galeev, A. I. Dokhov, G. N. Valevakhin	18.10 -18.30
6	INTENSIFICATION OF THE PROCESS OF DEHYDRATING ALCOHOL BY MICROWAVE ELECTROMAGNETIC ENERGY G.N.Valevakhin, A.A. Kontar, E.R. Galeev. And A.I. Dokhov	18.30-18.50
7	INITIATION OF SULFUR CHEMISORPTION REACTIONS UNDER ACTION OF ELECTROMAGNETIC MICROWAVE ENERGY IN DIESEL FUEL A. A. Kontar, A. I. Dokhov, E. R. Galeev	18.50-19.10
THURSDAY, APRIL 23		
SESSION 4.2 - LOW-GAIN AND COMMUNICATION ANTENNAS, PRINTED ANTENNAS <i>Chairs: F.F. Dubrovka, V.O. Doroshenko</i>		09.00-11.00 Auditorium B
7	MODEL PROGRESS OF SUBCHANNEL DISTRIBUTION IN WIMAX ANTENNAS SYSTEM A.V. Lemeshko, H. D. Al-Janabi, A. M. K. Al-Dulaimi	9.00-9.20
8	MODEL OF RESOURCE ALLOCATION TYPE 1 IN DOWNLINK LTE S. Garkusha, A. M. K. Al-Dulaimi, H. D. Al-Janabi	9.20-9.40

9	RADIATION FIELDS OF THE SPHERICAL SLOT ANTENNA IN A MATERIAL MEDIUM S. L. Berdnik, V.S. Vasytkovskiy, M.V. Nesterenko, Yu.M. Penkin	9.40-10.00
10	DIAMOND DIPOLE ACTIVE ANTENNA I.N. Bubnov, I.S. Falcovich [†] , A.A. Gridin, A.A. Stanislavsky, A.P. Reznik	10.00-10.20
11	ULTRAWIDEBAND END-FIRE RADIATION OF A PLANAR LOW PROFILE DIPOLE-SLOT ANTENNA BACKED BY GROUND PLANE O.V. Tolkachov, F.F. Dubrovka	10.20-10.40
12	EXPERIMENTAL STUDY OF THE PROPERTIES OF WIDEBAND ANTENNAS OF SPECIAL SHAPE V.O. Doroshenko, O.E. Strelnytskyi, O.O. Strelnytskyi	10.40-11.00
SESSION 5.2 - FEEDER CIRCUITS AND THEIR ELEMENTS, MICROWAVE COMPONENTS AND MATERIALS, ANTENNA RADOMES AND ABSORBERS, ANTENNA MEASUREMENTS <i>Chairs:</i> G.P. Pochanin, O. O. Drobakhin		9.00-11.00 Auditorium C
9	A NOVEL APPROACH TO SIX-PORT REFLECTOMETER ANALYSIS O. O. Drobakhin	9.00-9.20
10	EIGEN PARAMETERS OF QUASIPERIODIC BRAGG LAYERED STRUCTURES M. V. Andreev, V. F. Borulko, O. O. Drobakhin, and D. V. Sidorov	9:20-9:40
11	SELECTION OF AN EFFICIENT POWER SUPPLY AND HEAT DISSIPATION OF MULTI-CHANNEL POWER AMPLIFIERS IN APAA V.V. Chukhmanov	9.40-10.00
12	ANTENNA FEEDER DEVICES OF TELEMETRY SYSTEMS "DNEPR" LV V.N. Masley, O.V. Obmok, O.L. Ol'shevskii, K.V. Rodin, Y.D. Romanenko	10.00-10.20
13	MEASUREMENTS OF ANTENNA PROPERTIES IN TIME DOMAIN G.P. Pochanin, V.P. Ruban, O.A. Orlenko, O.O. Shuba, O.G. Pochanin	10.20-10.40
14	SUBSTRATE APPLICATION OF MAGNETIC METAMATERIAL O. Rybin, S. Shulga, M. Jun, S. Wang	10.40-11.00
15	OPTOELECTRONIC SYSTEMS FOR POLYHARMONIC PROBING AND CHARACTERIZATION OF THE BRILLOUIN GAIN CONTOUR IN SINGLE-MODE OPTICAL FIBER P.E. Denisenko, A.A. Talipov, A.A. Vasilets	11.00-11.20
SESSION 6.2 - INDUSTRIAL AND MEDICAL APPLICATIONS OF MICROWAVE TECHNOLOGIES <i>Chairs:</i> G.A. Morozov, P. I. Talanov		9.00-11.00 Auditorium D
8	RESEARCH ON THERMAL DESTRUCTION MECHANISM OF NON-ABSORBING POLYMERS WITH MICROWAVE ENERGY EXPOSURE A. R. Nasybullin, M. P. Danilaev And E. A. Bogoslov	9.00-9.20
9	THE RESEARCH RESULTS OF THE MICROWAVE PROCESSING OF THERMOSETTING COMPOSITE MATERIALS R. R. Samigullin	9.20 -9.40
10	RESEARCH INTO THE EFFECT OF ELECTROMAGNETIC RADIATION OF EXTREMELY HIGH FREQUENCY WAVELENGTH ON POTATO GROWTH RATE A. V. Stepura and P. I. Talanov	9.40 -10.00

11	LABORATORY COMPLEX FOR OILY WASTE TREATMENT USING MICROWAVE TECHNOLOGIES D. A. Vedenkin, R. E. Samoshin And O.Y. Zuev	10.00-10.20
12	LABORATORY COMPLEX FOR OILY WASTE TREATMENT USING MICROWAVE TECHNOLOGIES D. A. Vedenkin, R. E. Samoshin And O.Y. Zuev	10.20-10.40
13	TREATMENT OF OIL SLUDGE USING MICROWAVE ENERGY D. A. Vedenkin, R. E. Samoshin and O.Y. Zuev	10.40-11.00
Coffee break		11.00-11.20
SESSION 4.3 - LOW-GAIN AND COMMUNICATION ANTENNAS, PRINTED ANTENNAS <i>Chairs: F.F. Dubrovka, V.O. Doroshenko</i>		11.20-12.20 Auditorium B
13	EXCITATION OF THE SLOT CONICAL ANTENNA (THEORY AND EXPERIMENT) V.O. Doroshenko, O.E. Strelnytskyi, and O.O. Strelnytskyi	11.00-11.20
14	EFFECTIVE USE OF MULTIBEAM ANTENNA AND METHOD OF SPACE-TIME MULTIPLE ACCESS IN MODERN MOBILE COMMUNICATION SYSTEMS Moskalets N.V.	11.20-11.40
15	METHOD OF SELF-RECOVERY FOR SENSORY COMMUNICATION SYSTEM USING SPATIAL-SELECTIVE ANTENNAS Teplitskaya S.N.	11.40-12.00
16	NUMERICAL AND EXPERIMENTAL RESEARCH OF MICROSTRIP RADIATORS FOR SPARSE ANTENNA ARRAYS V.Shalyapin, Y.Bobkov	12.00-12.20
SESSION 5.3 - FEEDER CIRCUITS AND THEIR ELEMENTS, MICROWAVE COMPONENTS AND MATERIALS, ANTENNA RADOMES AND ABSORBERS, ANTENNA MEASUREMENTS <i>Chairs: G.P. Pochanin, O. O. Drobakhin</i>		11.20-13.40 Auditorium C
16	RESEARCH OF NONLINEAR PROCESSES IN THE HIGHER INSTABILITY ZONES OF DISTRIBUTED PARAMETRICAL ZONAL SYSTEMS D. A. Bezuglov, G. P. Sinyavsky, L.V. Cherckesova, G.N. Shalamov, A.N. Zaichenko	11-20-12.00
17	OPTOELECTRONIC SYSTEMS FOR MICROWAVE INSTANTANEOUS FREQUENCY MEASUREMENT BASED ON AMPLITUDE-PHASE MODULATION OF THE OPTICAL CARRIER P.E. Denisenko, A.A. Vasilets, M.R. Nurgazizov	12.00-12.20
18	SENSOR APPLICATIONS OF BRAGG MICROWAVE STRUCTURES REALIZED IN COAXIAL WAVEGUIDE O. G. Morozov, A. R. Nasybullin, M. P. Danilaev, R. V. Farkhutdinov	12.20-12-40
19	RESONANCE PHENOMENA IN PHOTONIC AND MAGNONIC CRYSTALS OF MULTIFERROICS AS PART OF THIN-FILMS STRUCTURES D.A. Bezuglov, G.P. Sinyavsky, L.V. Cherckesova, G.N. Shalamov And A.N. Zaichenko	12-40-13.00
20	SYNERGETIC CONCEPTION OF ELECTRODYNAMICS OF NONLINEAR PARAMETRICAL ZONAL SYSTEMS IN HIGHER ZONES OF OSCILLATIONS INSTABILITY D.A. Bezuglov, G.P.Sinyavsky, L.V. Cherckesova, O.N. Manaenkova	13-00-13.20
21	APPLICATION OF THE FIBER-OPTIC COMMUNICATION SYSTEM COMPONENTS FOR ULTRAWIDEBAND ANTENNA ARRAY BEAM-FORMING A. P. Lavrov, S. I. Ivanov I. I. Saenko	13.20-13.40

SESSION 6.3 - INDUSTRIAL AND MEDICAL APPLICATIONS OF MICROWAVE TECHNOLOGIES <i>Chairs:</i> G.A. Morozov, P. I. Talanov		11.00-13.00 Auditorium D
14	A PORTABLE DEVICE FOR REGISTRATION AND TRANSFER OF PATIENT'S ELECTROCARDIOGRAM USING MICROWAVE TECHNOLOGIES A. A. Korobkov and A. V. Ulanov	11.20-11.40
15	MICROWAVE SPECTROSCOPY OF THE FIBER BRAGG GRATING O.G. Morozov, P.E. Denisenko and E.P. Denisenko	11.40-12.00
16	THE ANALYSIS OF AN ELECTROCARDIOSIGNAL IN A SYSTEM OF DATA TRANSMISSION IN CONTROL OFFICE T. F. Sherbakova and O. S. Osipova	12.00-12.20
17	DEVELOPMENT OF ALGORITHM OF TRANSMISSION OF ELECTROCARDIOGRAM AND ITS PARAMETERS T. F. Sherbakova, G. I. Sherbakov, A. V. Ulanov	12.20-12.40
18	CARDIAC ARRHYTHMIA ANALYSIS USED IN THE SYSTEM OF ELECTROCARDIOSIGNAL TRANSMISSION TO THE SUPERVISION CENTER T.F. Sherbakova, G.I. Sherbakov, S.S. Sedov	12.40-13.00

Lunch time	13.30-15.00
PLENARY SESSION 3 dedicated to 95-year anniversary of Prof. Yakov S. Shifrin	15.00-17.30 Auditorium E
Banquet	17.30

FRIDAY, APRIL 24

PLENARY SESSION 4 - INVITED PAPERS <i>Chairs:</i> P. L. Tokarsky, F. F. Dubrovka		10.00-12.40 Auditorium A
10	A NOVEL DUAL BAND MICROSTRIP ANTENNA ARRAY FOR RECEIVING OF SATELLITE NAVIGATIONAL SIGNALS GPS/GLONASS/GALILEO S. Y. Martynyuk, D. O. Vasylenko, F. F. Dubrovka, A. G. Laush	10.00-10.40
11	LARGE-ARRAY BEAMFORMING AND GAIN IN RANDOM MULTI-MODE CHANNELS: BASIC PHYSICAL ASPECTS AND PERFORMANCE ESTIMATIONS A.I. Malekhanov and A.V. Smirnov	10.40-11.20
Coffee break		11.20-11.40
12.	NEW TECHNIQUE OF TESTING AND CALIBRATION OF THE UTR-2 RADIO TELESCOPE O. M. Ulyanov, M. A. Sidorchuk, V. V. Zakharenko, S. N. Yerin, I. N. Bubnov, A. A. Skoryk, A. I. Shevtsova, M. S. Plakhov, D. V. Mukha and E. R. Rudavin	11.40-12.20
13	SYNTHESIS OF IMPEDANCE SURFACE EXCITED BY IRRADIATORS SYSTEM Y.V.Yukhanov, T.Y. Privalova	12.20-13.00
CLOSING CEREMONY <i>Chairs:</i> Y,S, Shifrin, P. L. Tokarsky,		13.00-14.00

