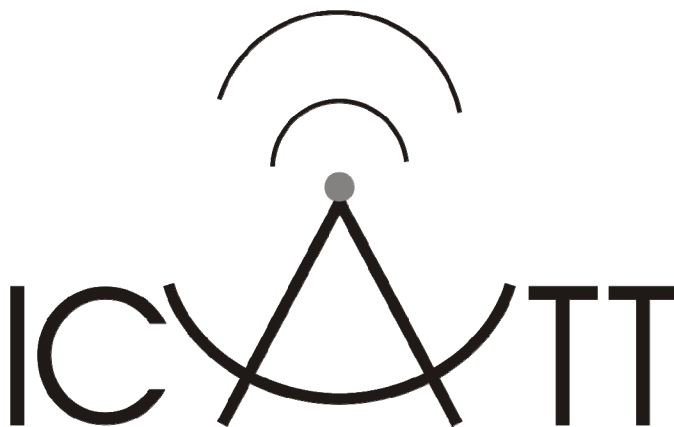


2007 6th International Conference on

**ANTENNA THEORY
AND
TECHNIQUE**



PROGRAM

*September 17 – 21, 2007
Sevastopol, Ukraine*

TIME TABLE

| Time | Auditorium 420 | Auditorium 418 | Library Auditorium 310 | Library Auditorium 304 | Auditorium FESTO | Library Auditorium 206 |
|--------------------------------|--|--|--|---|----------------------------------|-------------------------------------|
| Sunday, September 16 | | | | | | |
| 8:00 – 16:00 | Participant arrival (Hall SNTU, Б 407 – Organizing Committee Room) | | | | | |
| Monday, September 17 | | | | | | |
| 8:00 – 16:00 | Registration | | | | | |
| 9:00 – 9:30 | Opening Ceremony | | | | | |
| 9:30 – 11:15 | Plenary Session | | | | | |
| 11:15 – 11:45 | <i>Coffee break</i> | | | | | |
| 11:45 – 14:00 | Plenary Session | | | | | |
| 14:00 – 15:30 | <i>Lunch time</i> | | | | | |
| 15:00 – 17:30 | | | General Antenna Theory | Microwave Components and Circuits, Fiber-Optics Links | Antenna Measurement | Reflector, Lens and Hybrid Antennas |
| 18:00 – 21:00 | <i>Welcome Party</i> | | | | | |
| Tuesday, September 18 | | | | | | |
| 9:00 – 11:00 | | Plenary Session | | | | |
| 11:15 – 11:45 | <i>Coffee break</i> | | | | | |
| 11:45 – 14:00 | | Plenary Session | | | | |
| 14:00 – 15:00 | <i>Lunch time</i> | | | | | |
| 15:00 – 16:40 | | | General Antenna Theory | Microwave Components and Circuits, Fiber-Optics Links | Antenna Measurement | Reflector, Lens and Hybrid Antennas |
| 16:40 – 16:50 | <i>Short break</i> | | | | | |
| 16:50 – 18:00 | | | Antennas for Mobile Communications | Industrial and Medical Applications of Microwave Technologies | Analytical and Numerical Methods | Antenna Array |
| Wednesday, September 19 | | | | | | |
| 10:00 – 18:00 | Free day for Sevastopol and Crimea view | | | | | |
| Thursday, September 20 | | | | | | |
| 9:00 – 11:00 | | | Broadband and Multi-frequency Antennas | Industrial and Medical Applications of Microwave Technologies | Analytical and Numerical Methods | Antenna Array |
| 11:15 – 11:45 | <i>Coffee break</i> | | | | | |
| 11:45 – 14:00 | | | Broadband and Multi-frequency Antennas | Antenna for remote sensing | Analytical and Numerical Methods | Antenna Array |
| 14:00 – 15:30 | <i>Lunch time</i> | | | | | |
| 15:30 – 16:30 | Poster Section | | | | | |
| 18.00 | <i>Banquet</i> | | | | | |
| Friday, September 21 | | | | | | |
| 11:45 – 12:45 | | Plenary Session & School for Young Scientist | | | | |
| 12:45 – 13:45 | | Closing Ceremony | | | | |

| | |
|--|-----------------------------------|
| OPENING CEREMONY | 9:00 – 9:30 Auditorium 420 |
| PLENARY SESSION <i>Invited Papers</i> | 9:30 – 11:00 Auditorium 420 |
| Chairs: Ya.S. Shifrin , <i>Kharkov, Ukraine</i> , F.F. Dubrovka , <i>Kiev, Ukraine</i> | |
| 01. An array processing approach to MIMO communications A. Gershman, <i>Darmstadt, Germany</i> | |
| 02. Microwave spherical focusing systems S.S. Vinogradov, <i>Epping, Australia</i> | |
| 03. The family of atomic functions and digital signal processing in synthetic aperture radar V.F. Kravchenko, <i>Moscow, Russia</i> , V.K. Volosyuk and V.V. Pavlikov, <i>Kharkov, Ukraine</i> | |
| Coffee Break | 11:15 – 11:45 |
| PLENARY SESSION <i>Invited Papers</i> | 11:45 – 14:00 Auditorium 420 |
| Chairs: V.F. Kravchenko , <i>Moscow, Russia</i> , F.J. Yanovsky , <i>Kiev, Ukraine</i> | |
| 04. Microwave scattering on atmospheric particles Felix J. Yanovsky, <i>Kiev, Ukraine</i> , Leo P. Ligthart, <i>Delft, The Netherlands</i> | |
| 05. Adaptive techniques of the wavefield formation in random-inhomogeneous multimode propagation channels by the use of large arrays E.Yu. Gorodetskaya, A.I. Malekhanov, A.G. Sazontov, N.K. Vdovicheva, <i>Nizhny Novgorod, Russia</i> | |
| 06. Beauty of fractals, design of fractal antennas G. G. Chavka, <i>Bialystok, Poland</i> | |
| 07. Recent progress in development of multiband feed horns (review) F.F. Dubrovka, <i>Kiev, Ukraine</i> , R.F. Dubrovka, <i>London, UK</i> , Yu. A. Ovsianyk, Ya.O. Rospopa, <i>Kiev, Ukraine</i> | |
| Lunch Time | 14:00 – 15:30 |
| GENERAL ANTENNA THEORY | 15:30 – 17:30 Library aud. 310 |
| Chairs: Yu.K. Sirenko , <i>Kharkov, Ukraine</i> , A.M. Lerer , <i>Rostov-on-don, Russia</i> | |
| 01. 60 years of electrically small antennas theory V.I. Slyusar, <i>Kiev, Ukraine</i> | |
| 02. Scattering of an e-polarized plane wave by elongated cylinder of arbitrary cross-section S. Vinogradov and C. Wilson, <i>Epping, Australia</i> | |
| 03. Electric characteristics of a skin layer of a plasma jet generated as a result of the blank cartridge explosion in a free space O.O. Puzanov, <i>Kharkov, Ukraine</i> | |
| 04. A discussion on the properties of electrically small fractal antennas V.M. Onufriyenko, <i>Zaporizhzhia, Ukraine</i> | |
| 05. Resonance degenerate plane lattice of magnetodielectric spheres with a hole A.I. Kozar, <i>Kharkov, Ukraine</i> | |
| 06. Electromagnetic field of dipole antenna in multilayered medium with losses A.B. Kleshchenkov, A.M. Lerer and O. S. Labunko, <i>Rostov-on-don, Russia</i> | |

MONDAY, SEPTEMBER 17

07. Radiation of electromagnetic field pulses by planar dipole antennas at different modes of excitation

A.A. Orlenko, P.V. Kholod, V.P. Ruban, *Kharkov, Ukraine*

08. Forming and radiation of high-power short radio pulses

Yu.K. Sirenko, V. L. Pazyinin and O. S. Shafalyuk, *Kharkov, Ukraine*

MICROWAVE COMPONENTS AND CIRCUITS, FIBER-OPTICS LINKS

15:30 – 17:30

Library aud. 304

Chairs: **M.I. Boyko, A.G. Rutkas**, *Kharkov, Ukraine*,

01. Helix antennas for generators of short high-voltage pulses

M.I. Boyko, *Kharkov, Ukraine*

02. Complex frequencies of the rectangular resonator with the arbitrary number of the dielectric heterogeneities

S.S. Samoylyk, V.P. Bondaryev, *Zaporizhzhya, Ukraine*

03. On the development of efficient computational algorithm for transmission lines

V.V. Khoroshun, N.A. Syvozalizov, *Kharkov, Ukraine*

04. The evolution of nonmonochromatic mode fields in a waveguide with space dispersive medium

A.G. Rutkas and L.A. Vlasenko, *Kharkov, Ukraine*

05. Design of SPMT switches matched by means of transforming four-poles

V.I. Oborzhytskyy, *Lviv, Ukraine*

ANTENNA MEASUREMENTS

15:30 – 17:30

Auditorium FESTO

Chairs: **V.A. Usin, Kharkov Ukraine, Yu.B. Gimpilevich**, *Sevastopol, Ukraine*

01. Antenna measurements in Ukraine

V.A. Usin, *Kharkov Ukraine*, V.I. Markov, V.S. Muravejnik, A.B. Filonenko, *Kiev, Ukraine*

02. Statistical approach in the testing of phased array antennas

V.A. Usin, *Kharkov Ukraine*, V.I. Markov, A.B. Filonenko, *Kiev, Ukraine*

03. Microwave parametric reflectometer

Yu.B. Gimpilevich, Yu.Y. Smailov, I.L. Denisov, V.V. Plotnikov, *Sevastopol, Ukraine*

04. Localization of the reflecting centers using multifrequency and multiposition antenna scanning

M. V. Andreev, V. F. Borulko, *Dniepropetrovsk, Ukraine*

05. Extension minimum method for determination of antenna pattern from near-field measurements

O.S. Antropov, V.F. Borulko, S.M. Vovk, *Dniepropetrovsk, Ukraine*

REFLECTOR, LENS AND HYBRID ANTENNAS

15:30 – 17:30

Library aud. 206

Chairs: **N.N. Gorobets, Kharkov, Ukraine, L.M. Lobkova**, *Sevastopol, Ukraine*

01. Influence of diffraction effects on radiation of the electric dipoles located inside P-figuration corner reflector

N.P. Yeliseyeva, N.N. Gorobets, *Kharkov, Ukraine*

02. The experimental investigation of focusing systems based on microstrip reflectarrays

A. O. Kasyanov, *Taganrog, Russia*

03. Wide angle scanning spherical reflector antenna

L.M. Lobkova, M.I. Redin, *Sevastopol, Ukraine*

04. **Compact reflector antenna with the monopole sub-reflector**

S. A. Radionov, *Kharkov, Ukraine*

05. **Integrated immersion lens antennas for millimeter and submillimeter wave array detectors**

A.V. Uvarov, S.V. Shitov, S.E. Bankov, V.F. Zabolotny, O.V. Koryukin And A.N. Vystavkin, *Moscow, Russia*

06. **The amplitude and power criterion in the synthesis problems for waveguide antennas**

M.I. Andriyчук, O. F. Zamorska, *Lviv, Ukraine*

WELCOME PARTY

18:00 – 21:00

SEVASTOPOL HISTORICAL PLACES AND MUSEUMS

NATIONAL PRESERVE OF “Tauric CHERSONESOS”,

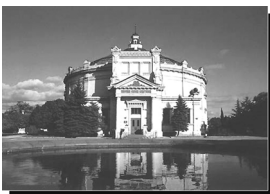
1, Drevnyaya str.

Tauric Chersonesos is the name of the city founded by Greek colonists in southwestern Crimea more than 2500 years ago. Its archaeological ruins are presently one of the attractions of the city of Sevastopol.

In ancient Greek the word *chersonesos* means "peninsula." The city was indeed located on a small peninsula between two bays. "Tauric" Chersonesos further denotes the location of the colony, that is, "in the lands of the Taurians." This a warring tribe that inhabited the neighboring mountains. The city was destined to exist for nearly two thousand years, and its history is intertwined with that of ancient Greece, Rome, and Byzantium.



PANORAMA “THE DEFENCE OF SEVASTOPOL 1854 – 1855”, *Istoricheskij bulvar*



The main avenue of Historical parkway leads to a world known monument. It is a panorama showing one of the episodes of 349-day's heroic defence of Sevastopol – the repulsing of the storm of June 6, 1855 by the city defenders. The author of the panorama is the founder of Russian panoramic art France Alekseevich Rubo (1856–1928), professor of a class battle painting of applied arts St. Petersburg Academy, and then valid member of this academy.

Panorama "Defense of Sevastopol 1854 — 1855" was opened on May 14, 1905, in commemoration 50 years famous epopee. The original round building with a dome, crown with rotunda, is erected under the project of the military engineer O. I. Enberg and architect V. A. Feldman.

The **MONUMENT TO THE SCUTTLED SHIPS** of the Black Sea Fleet is located in the Sevastopol Bay, 10 meters away from the seafront of the Seaside Boulevard. It was built in 1905 on the fiftieth anniversary of the first heroic defense of Sevastopol after the design by sculptor A.G. Adamson, architect V.A. Feldman with participation of military engineer colonel O.I. Enberg.



TUESDAY, SEPTEMBER 18

PLENARY SESSION 9:00 – 11:00
Invited Papers Auditorium 418

Chairs: A.A.Konovalenko, *Kharkov, Ukraine*, B. Jecko, *Limoges, France*

08. Minimization of phase noise in scaled device coupled mode oscillators

U.L. Rohde, *Cottbus, Germany*, A.K. Poddar, *New Jersey, USA*

09. The reflectivity investigation of satellite and ground based antennas at 100 – 380 GHz and 80K

V. V. Parshin, *Nizhny Novgorod, Russia*

10. EBG resonator antennas: state of the art and prospects

C. Menudier, M. Thevenot, T. Monediere, B. Jecko, *Limoges, France*

11. Microwave measurement of directories and fovee electronics & their applications

C.D. Gupta, *Kanpur, India*

Coffee Break 11:15 – 11:45

PLENARY SESSION 11:45 – 14:00
Invited Papers Auditorium 418

Chairs: K. van't Klooster, *Noordwijk, The Netherlands*, A.P. Yevdokymov, *Kharkov, Ukraine*

12. Effects of the element separation on the noise performance of receiving antenna arrays

M.V. Ivashina, E.E.M. Woestenburg, *Dwingeloo, The Netherlands*, E.A. Redkina, *Sevastopol, Ukraine*

13. Asymptotic wave-like modeling of dielectric lenses

V.B. Yurchenko, *Maynooth, Ireland*, and A. Altintas, *Ankara, Turkey*

14. Diffraction radiation antennas for SHF and EHF radiosystems

A.P. Yevdokymov and V. V. Kryzhanovskiy, *Kharkov, Ukraine*

15. Final destillated landing trajectory of Huygens on Titan

K. van't Klooster, *Noordwijk, The Netherlands*

Lunch Time 14:00 – 15:00

GENERAL ANTENNA THEORY 15:00 – 16:40
Library aud. 310

Chairs: V.A. Rezenenko, *Kharkov, Ukraine*, L.M. Lobkova, *Sevastopol, Ukraine*

09. Diffraction field of the vertical dipole from sphere with aperture, screening by the dielectrical layer

V.A. Rezenenko, S.V. Roshchupkin, E. I. Radchenko, *Kharkov, Ukraine*

10. Mathematical model of the disk modulated impedance antenna

V.V. Hoblyk and N. N. Hoblyk, *Lviv, Ukraine*

11. Wire curvilinear antennas with impedance elements

O.L. Makarov, V.V.Ovsyanikov, O.L. Ol'shevskiy, V.M. Popel', Y.D. Romanenko, *Dnepropetrovsk, Ukraine*

12. Research of radiation characteristics of Z antenna

L.M.Lobkova, A.V.Lukjanchikov, E.V.Kadatsky, *Sevastopol, Ukraine*

13. The influence of fluctuations of electromagnetic wave angles of arrival on the maximum radiation direction of aperture antennas

L.M. Lobkova, V.V. Golovin, A.V. Troitskiy, *Sevastopol, Ukraine*

14. Interaction of director antennas in the near-field region

S.A. Chekan, N.M. Naumovich, *Minsk, Belarus*

MICROWAVE COMPONENTS AND CIRCUITS, FIBER-OPTICS LINKS

15:00 – 16:40

Library aud. 304

Chairs: **A.K. Poddar**, *New Jersey, USA*, **V.O. Katrich**, *Kharkov, Ukraine***07. Low cost signal source for multi-band multi-mode wireless systems**U.L. Rohde, *Cottbus, Germany*, **A.K. Poddar**, *New Jersey, USA***08. The short pulse insensitization in thin film**A.L. Gutman, *Fremont, USA***09. H10 wave diffraction in a rectangular waveguide by a narrow walls impedance jump**L.M. Logacheva, S. V. Kutsak, and V. P. Bondaryev, *Zaporizhzhya, Ukraine***10. Transient radiation from the open end of circular waveguide**O. M. Dumin, O. O. Dumina, Yu Zheng, A.V. Shishkova, V.O. Katrich, *Kharkov, Ukraine***ANTENNA MEASUREMENTS**

15:00 – 16:40

Auditorium FESTO

Chairs: **V. Markov**, *Kiev, Ukraine*, **D.D. Ivanchenko**, *Kharkov, Ukraine***06. Built-in performance monitoring system for active phased-array antennas**V. Markov, *Kiev, Ukraine***07. Solid state nonstationary spectrometers subTHz and THz frequency ranges for analytical applications**V.L. Vaks, S.I. Pripolzin, A.N. Panin, S.D. Nikiforov, A.A. Vinogradov, *Nizhny Novgorod, Russia***08. Scanning radiometry measuring complex with programmed numerical control**V.I. Antyufeev, V.N. Bykov, A.M. Grichaniuk, D.D. Ivanchenko, V.A. Krayuschkin, *Kharkov, Ukraine***09. Electrophysical properties of nematic liquid crystals under stationary and microwave electric and magnetic fields**M.P. Kukhtin, A.I. Kocherzhin, L.N. Lisetski, A.G. Nerukh, A.P. Fedoryako, N.N. Kukhtina, *Kharkov, Ukraine***REFLECTOR, LENS AND HYBRID ANTENNAS**

15:00 – 16:40

Library aud. 206

Chairs: **I.O. Sukharevsky**, *I.I. Magda*, *Kharkov, Ukraine*,**07. High-potential impulse reflector antenna**S.A. Berdin, N.P. Gadetski, E.I. Kravtsova, I.I. Magda, V.S. Mukhin, *Kharkov, Ukraine***08. Mathematical simulation of near radiation fields for reflector-type antenna with sharp nose radome (two-dimensional problem)**S.V. Kukobko, A.Z. Sazonov and I.O. Sukharevsky, *Kharkov, Ukraine***09. An antenna ship rls with a reflector element as a cutting-out from the parabolic cylinder**A.N. Nechiporenko, L.D. Fesenko, G.M. Krivosheeva, *Kharkov, Ukraine***10. A dualband coaxial dielectric-loaded feed horn**F. F. Dubrovka, *Kiev, Ukraine*, R. F. Dubrovka, *London, UK* and Yu.A. Ovsianyk, *Kiev, Ukraine***11. Wave radiation of electrically long axial slot cut into the circular waveguide**E.Y. Belogurov, V.A. Katrich, V.A. Lyaschenko, *Kharkov, Ukraine***Short Break**

16:40 – 16:50

TUESDAY, SEPTEMBER 18

ANTENNAS FOR MOBILE COMMUNICATION

16:50 – 18:00

Library aud. 310

Chairs: **V.I. Rudakov**, *Kiev, Ukraine*, **I.B. Shirokov**, *Sevastopol, Ukraine*

01. **Antenna matching for bandwidth enhancement**
R. Kravchenko, M. Stadler and F. Rak, *Deutschlandsberg, Austria*
 02. **Broadband antenna array for mobile radiocommunication**
M. Sadowski and N. Litwinczuk, *Bialystok, Poland*
 03. **Adaptive array of base station of mobile communication**
I.B. Shirokov, M.A. Durmanov and V.E. Chertkov, *Sevastopol, Ukraine*
 04. **A novel coaxial CTS antenna design**
Jinghui Qiu Xiaohang Xing and Lingling Zhon, *Harbin, China*
 05. **The adaptive automat of compencation losses amplification of antennas on the sample troposphere radiocommunication**
V.I. Rudakov, *Kiev, Ukraine*
 06. **Ultra wideband antenna for multiband communication system and cell phone communication**
A.N. Shamanov, V.F. Los', *Moscow, Russia*
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INDUSTRIAL AND MEDICAL APPLICATIONS OF MICROWAVE TECHNOLOGIES

16:50 – 18:00

Library aud. 304

Chairs: **Y. Shckorbatov**, *Kharkov, Ukraine*, **S. B. Bibikov**, *Moscow, Russia*

01. **Drosophila melanogaster viability and mutability under the influence of low energy microwave monochromatic and ultra wideband impulse field**
Y. Shckorbatov, V. Pasiuga, L. Shakina, V. Grabina, N. Kolchigin, D. Ivanchenko, O. Kazansky, V. Bykov, *Kharkov, Ukraine*
 02. **A study on methods of microwave wood drying**
S.V. Volkov, A.I. Domakov, V.G. Prahov, V.A. Yatskevich, *Vologda, Russia*
 03. **New absorbing materials for applications in decimeter and millimeter wavelengths ranges**
S. B. Bibikov, Ed. I. Kulikovskiy, R.S. Sharafiev, *Moscow, Russia*, P. A. Kuznetsov, *St.-Petersburg, Russia*
 04. **Electromagnetic modeling, optimization and on-site verification of electromagnetic fields exposure from high power RF sources**
A.R. Rosa, *Ardea, Italy*
 05. **A potential of the bistatic SAR for aviation and space deployment**
R.P. Voloschuk and E.A. Bogoroditskiy, *Kharkov, Ukraine*
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ANALYTICAL AND NUMERICAL METHODS

16:50 – 18:00

Auditorium FESTO

Chairs: **A.A. Kirilenko**, *A. Nerukh, Kharkov, Ukraine*,

01. **Resolvent operator of Maxwell equations for 6-dimensional field vector**
A.Vozianova and A. Nerukh, *Kharkov, Ukraine*
02. **Application of wavelet transform to the solution of scattering problems**
S. N. Romanenko, L. M. Karpukov and R. D. Pulov, *Zaporizhzhya, Ukraine*
03. **To numerical solution of problem on mean-square approximation of real nonnegative finite function with respect to two variables by module of double Fourier transformation**
P. O. Savenko, M. D. Tkach, *Lviv, Ukraine*

04. **The simulation of effective parameters of composite media with embedded metal-dielectric thin fibers**
 V. I. Demidchik, N. Yu. Sitsko, *Minsk, Belarus*
05. **Analytical and numerical method for solving model problems of slotted cone antenna impulse excitation**
 V.A. Doroshenko, *Kharkov, Ukraine*
06. **Frequency selective surfaces with L-shaped apertures**
 O.A. Blinnikova, N.G. Don, and A.A. Kirilenko, *Kharkov, Ukraine*

ANTENNA ARRAY

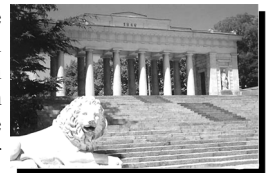
16:50 – 18:00
 Library aud. 206

Chairs: S.A. Pogarsky, *Kharkov, Ukraine*, C.D Gupta, *Kanpur, India*

01. **The bounded periodical microstrip-slot structure as a radiating model**
 V.A. Katrich, D.V. Mayboroda, S.A. Pogarsky, S.V. Pshenichnay, I.I. Saprykin, *Kharkov, Ukraine*
02. **Numerical study of 32 element phased array antenna**
 C.D Gupta, *Kanpur, India*
03. **Non-uniform amplitude excitation of elements in an antenna array**
 S.V. Nesteruk, *Sevastopol, Ukraine* and M. B. Protsenko, *Odessa, Ukraine*
04. **Research of inphase arrays from rectangular microstrip antennas of microwave frequency**
 A.A. Kalinin, A.V. Ulanovskij, V.N. Sharypin, V.V. Gladeychuk, *Minsk, Belarus*
05. **Numerical modeling of wire multi-element antenna array**
 Y.Y. Bobkov, O.A. Yurtsev, D.V. Lihachevsky, *Minsk, Belarus*

SEVASTOPOL HISTORICAL PLACES AND MUSEUMS

THE EARLING QUAY is situated in the center of the city, on the southern part of the Sevastopol Bay. In June 1783, it was created from masonry stones under the license of D. Seniavin. In 1787 with the Ekaterina II arrival, the quay was equipped with modern amenities and was officially named Ekateriniskaia. Later the name was changed to Earling after the Earl M.I. Voinovich, a commander of the Sevastopol squadron who would dock his ship at the quay.



The **MUSEUM OF BLACK SEA FLEET** can be found in the central part of city in Ekaterinenskaya street (11, Lenina str.). The initiative of creation of the museum belonged to the participants of the heroic defense of Sevastopol 1854 — 1855.



For the museum the subjects were handed: personal things, photos, documents, manuscript of memoirs participators of the defense of Sevastopol, collection of cold and fire-arms, engravings, picture by artists I. K. Ayvazovskiy, F. A. Rubo, V. E. Makovskiy and others.



BROADBAND AND MULTI-FREQUENCY ANTENNAS09:00 – 11:15
Library aud. 310Chairs: **V.V. Ovsyanikov, Dniepropetrovsk, Ukraine, G.P. Pochanin, Kharkov, Ukraine**

01. **Designing of multifrequency wire antennas with shunts**
Ovsyanikov V. V., *Dniepropetrovsk, Ukraine*
 02. **Research and design on ultra-wideband dielectric hemispheric lens loaded quad-ridged horn antenna**
Jinghui Qiu, Ying Suo and Wei Li, *Harbin, China*
 03. **UWB radiating antenna arrays with strong coupling between the elements**
G.P. Pochanin and T.N. Ogurtsova, *Kharkov, Ukraine*
 04. **Ultra-wideband tapered-slot antenna with non-uniform resistive loading**
V.A. Mikhnev, *Minsk, Belarus*, and P. Vainikainen, *Helsinki, Finland*
 05. **Ultra wideband horn antenna excitation by a crack**
V. P. Manoilov, V. V. Pavluk and V. V. Chuhov, *Zhytomir, Ukraine*
 06. **Ultrawideband linear antenna array**
L.D. Bakhrakh, V.F. Los', A.N. Shamanov, *Moscow, Russia*
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INDUSTRIAL AND MEDICAL APPLICATIONS OF MICROWAVE TECHNOLOGIES11:45 – 13:00
Library aud. 304Chairs: **O.O. Drobakhin, Dniepropetrovsk, Ukraine, O.V. Karpenko, Kharkov, Ukraine**

06. **Influence of microwave irradiation on the blood of men**
O.O. Drobakhin, V.I. Magro, V.E. Kudrjavitseva, O.M. Tatarchuk, *Dniepropetrovsk, Ukraine*
 07. **Designing adaptive interferometer for landing traffic control systems in the millimeter-wave band**
O.V. Karpenko, *Kharkov, Ukraine*
 08. **Laser interferometer antenna array records seismo-acoustic earth strains**
M. N. Dubrov and D. V. Aleksandrov, *Moscow, Russia*
 09. **Turnstile antenna for saddle pattern generation in LEO satellite applications**
J.M. Baabuei K. Keyghobad T. Heydari, *South Tehran, Iran*
 10. **Design & fabrication of turnstile antenna with feed network optimization for LEO satellites**
K. Keyghobad, J.M. Baabuei T. Heydari, *South Tehran, Iran*
 11. **Electromagnetic modelling of system of two vibrators on transitive compartment accelerating of block «frigate»**
V.A. Ruchenkov, K.N. Klimov, B.V. Sestroretskii, *Moscow, Russia*
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ANALYTICAL AND NUMERICAL METHODS09:00 – 11:15
Auditorium FESTOChairs: **A.Yu. Butrym, Kharkov, Ukraine, V.I. Magro, Dniepropetrovsk, Ukraine**

07. **Extension of diffraction theory heuristic methods feasibilities by use of the method of generalized eikonal**
M. V. Vesnik, *Moscow, Russia*
08. **On boundary conditions on the curvilinear metallic surface**
S. D. Prijmenko, *Kharkov, Ukraine*
09. **Mode basis method for spherical TEM – transmission lines and antennas**
A. Butrym, B. Kochetov, *Kharkov, Ukraine*
10. **Influence of thickness of perfectly conducting plate on its scattering characteristics**
V.P. Soldatenkov, *Minsk, Belarus*
11. **Numerical modeling of multi-beam reflector antennas**
O.A. Yurtsev, N.M. Naumovich, E.A. Pikhta, *Minsk, Belarus*

12. **The near zone field of crossed impedance vibrators in absorbing medium over the perfect conducting plane**

V.A. Katrich, M.V. Nesterenko and V.M. Dakhov, *Kharkov, Ukraine*

13. **Metod of analysis of antennas and transmission lines**

V.M. Morozov and V.I. Magro, *Dnepropetrovsk, Ukraine*

ANTENNA ARRAY

09:00 – 11:15

Library aud. 206

Chairs: **A.N. Titov, Moscow, Russia, P.L. Tokarsky, Kharkov, Ukraine**

06. **Wi-fi networks user's terminal phased antenna array**

Y.P. Mickhayluck, A.A. Savochkin, A.A. Schekaturin and V.M. Iskiv, *Sevastopol, Ukraine*

07. **Modeling dipole antenna arrays placed, near to interface between two media**

P. L. Tokarsky and Yu. A. Panchenko, *Kharkov, Ukraine*

08. **Sidelobe reduction of two-dimensional waveguide-slot antenna arrays**

S.L. Berdnik and V.A. Katrich, *Kharkov, Ukraine*

09. **Directional characteristics of rarefied antennas array with screen**

N. N. Gorobets and A. A. Bulgakova, *Kharkov, Ukraine*

10. **Modeling of horn array antennas with protruding dielectric elements**

S.P. Skobelev and A.A. Yaparova, *Moscow, Russia*

11. **The method for wire radiators analysis in infinite planar phased array**

V. P. Kudzin, *Gomel, Belarus*

12. **To calculation of the signal/noise ratio on an output of the active phased array antenna**

A. N. Titov, G. W. Petryaev, *Moscow, Russia*

Coffee Break

11:15 – 11:45

BROADBAND AND MULTI-FREQUENCY ANTENNAS

11:45 – 13:00

Library aud. 310

Chairs: **G.G. Chavka, Bialystok, Poland, F.F. Dubrovka, Kiev, Ukraine**

07. **The simulation research of a novel UWB triangle monopole antenna**

Shu Lin, Jinghui Qiu, Xuemai Gu, He Ren, Bo Zhao, Harbin, *China*

08. **A new broadband UHF antenna with controlled current distribution**

G. G. Chavka, *Bialystok, Poland*

09. **Wideband irregular-shaped fractal antennas**

V. V. Kolesov and S. V. Krupenin, *Moscow, Russia*

10. **Circular polarization broadband antenna feed**

L.M. Lobkova, V.V. Golovin, A.V. Lukjanchikov, A.V. Troitskiy, U.N. Tyschuk, *Sevastopol, Ukraine*

11. **Contour optimization of a planar broadband dipole using genetic algorithms**

D.O. Vasilenko, F.F. Dubrovka, *Kiev, Ukraine*, P. Edenhofer, *Bochum, Germany*

ANTENNAS FOR REMOTE SENSING

09:00 – 11:15

Library aud. 304

Chairs: **K.P. Gaikovich, Nizhniy Novgorod, Russia, N.G. Maksimova, Kharkov, Ukraine**

01. **Antennas for near-field microwave passive and active sounding**

K.P. Gaikovich, *Nizhniy Novgorod, Russia*

02. **Intellectual multisurvey processing of radar information**

V.V. Zhirnov and S.V. Solonskaya, *Kharkov, Ukraine*

03. **Combined acousto-electromagnetic antennas for radioacoustic sounding of the atmosphere**

Y.N. Ulyanov, N.G. Maksimova, Y.S. Shifrin, *Kharkov, Ukraine*

04. **Planar antenna-coupled detector for matrix systems of millimeter wave imaging**

Shashkin V. I., Zakamov V. R., Murel A. V., Chechenin Yu. I., *Nizhny Novgorod, Russia*

THURSDAY, SEPTEMBER 20

05. **Enclosed coaxial waveguide antenna array for a ground-penetrating radar**
V.V. Scherbinin *Barnaul, Russia* and D.S. Shatov, *Krasnoyarsk, Russia*
06. **SAR imaging based upon nonswitchable antenna array and noise signals**
A. Mogyla, K. Lukin, and P. Vyplavin, *Kharkov, Ukraine*
07. **UWB antenna array development for GPR applications**
Ye. Maksimovitch, V. Mikhnev, *Minsk, Belarus*, P. Vainikainen, *Helsinki, Finland* and V. Badeev, *Minsk, Belarus*

ANALYTICAL AND NUMERICAL METHODS

11:45 – 13:00
Auditorium FESTO

Chairs: V.I. Magro, *Dnepropetrovsk, Ukraine*, Yu Zheng, *Kharkov, Ukraine*

14. **Some potentialities and prospects of the partial scattering operators method**
I. L. Verbitskii, *Kharkov, Ukraine*
15. **Transient spherical wave front steadying in the near zone of an antenna**
A. Butrym, Yu Zheng, *Kharkov, Ukraine*
16. **Comparison of absorbing boundary conditions for numerical analysis of periodic structures**
A. Butrym, M. Legenjkij, *Kharkov, Ukraine*
17. **Design of wire antennas with using of genetic algorithms**
G.G. Chavka and N. Litwinczuk, *Bialystok, Poland*
18. **The analysis and simulation of ellipsoid antenna for millimeter-wave imaging**
Li Hongmei, Wang Nannan, Bai Wenjing and Wang Miao, *Harbin, China*
19. **System spectral analysis of the signals**
L.F. Chernogor and O.V. Lazorenko, *Kharkov, Ukraine*
20. **Method of analysis of antennas and transmission lines**
V.M. Morozov and V.I. Magro, *Dnepropetrovsk, Ukraine*

ANTENNA ARRAY

11:45 – 13:00
Library aud. 206

Chairs: D.M. Vavriv, *Kharkov, Ukraine*, A.M. Lerer, *Rostov-on-Don, Russia*

13. **The electromagnetic pulse diffraction on finite array of 2-D metal cylinders**
O.S. Labunko, A.M. Lerer, V.V. Zemlyakov, G.P. Sinyavskiy, *Rostov-on-Don, Russia*
14. **A dual-polarization channels models of digital antenna arrays**
V. I. Slyusar and S.V. Voloshko, *Kiev, Ukraine*
15. **Antenna array signal processing with high-resolution by modified beamspace music algorithm**
V.I. Vasylyshyn, *Kharkov, Ukraine*
16. **Active noise interference compensation in forward-scattering radar with array**
A.V. Myakinkov, A.G. Ryndyk, *Nizhny Novgorod, Russia*
17. **Ka-band, P-i-N switchable antenna array system**
S.S. Sekretarov, D.M. Vavriv, V.A. Volkov, M.P. Natarov, V.V. Glamazdin, *Kharkov, Ukraine*

Lunch Time

14:00 – 15:30

POSTER SECTION

15:30 – 16:30

Chairs: A.V. Shishkova, N.K. Blinova, *Kharkov, Ukraine*, M. Garbaruk, *Bialystok, Poland*

01. **Radiation of planar stripline ultra-wideband antenna for WPAN systems**
M. Garbaruk, *Bialystok, Poland*
02. **Time and frequency analysis of signals used in pulsed antenna ultrawideband radiocommunication systems**
M. Garbaruk, *Bialystok, Poland*
03. **Near-field radiation from sectoral horns**
A.V. Shishkova, N.N. Gorobets, E.E. Ovsyannikova, *Kharkov, Ukraine*

04. **Electrodynamics characteristics of the transversal slot radiator in a rectangular waveguide with a layered dielectric filling**
N.K. Blinova, A.A. Lyakhovsky and L.P. Yatsuk, *Kharkov, Ukraine*
05. **A study on the modelling of the electromagnetic model base on visual human**
Kai Yang , Xiaoming Zhou and Guang Mei, *Guangzhou, China*
06. **Noise reduction techniques for configurable RF signal source**
U.L. Rohde, *Cottbus, Germany*, and A.K. Poddar, *New Jersey, USA*
07. **Sensitivity characteristics of different configurations of software gradiometers used in magnetocardiography**
A. Butrym, Yu. Durneva, S.N Shulga, *Kharkov, Ukraine*
08. **Electrodynamics of regular composite medium with plate grates of contrast materials**
V.B. Kazanskiy , V.R. Tuz, *Kharkov, Ukraine*
09. **The simulation research of an s-band low-sidelobe antenna**
Caitian Yang, Wenjing Bai, Nannan Wang, Xin Chen, *Harbin, China*
10. **Experimental study on fan-beam cassegrain antenna fed by a 4-element binomial array**
C D Gupta, *Kanpur, India*
11. **Back propagation neural network method of solution of normal fat dipole and truncated conical grounded monopole and optimization by genetic algorithm**
C.D. Gupta, *Kanpur, India*
12. **Multi-element wire antenna array scattering characteristics numerical modeling**
A.V. Bartsevich, Y.Y. Bobkov, A. Al-Rifay, O.A. Yurtsev, *Minsk, Belarus*
13. **Numerical simulation of monopulse double-reflector antennas**
O.A. Yurtsev, N.M. Naumovich, E.A. Pikhta, *Minsk, Belarus*
14. **Digital analysis of the non-linear ultrawideband processes**
L.F. Chernogor, O.V. Lazorenko, S.V. Lazorenko, O.V. Vishnivetsky, *Kharkov, Ukraine*
15. **Features of the aperture antenna radiation field, stipulated by the influence of turbulent inhomogeneities**
L.M. Lobkova, V.V. Golovin, A.V. Troitskiy, *Sevastopol, Ukraine*
16. **Radiation, scattering and receiving of pulse signals for subsurface object identification**
Kazansky O. V., *Kharkov, Ukraine*
17. **Stop bandwidth extremums of a periodic iris-loaded circular waveguide**
S.K. Katenev, Shi He, *Kharkov, Ukraine*
18. **Scattering fields of chiral layers periodical sequence**
V.B. Kazanskiy and V.R. Tuz, *Kharkov, Ukraine*

FRIDAY, SEPTEMBER 21

PLENARY SESSION & SCHOOL FOR YOUNG SCIENTIST

11:15 – 12:45

Invited Papers

Auditorium 418

Chairs: **V.A. Katrich, K.A. Lukin, N.N.Kolchigin, Kharkov, Ukraine**

16. Antenna beam scanning via aperture syntheses

K.A. Lukin, *Kharkov, Ukraine*

17. Matrix theory of dissipative antenna arrays

P.L. Tokarsky, *Kharkov, Ukraine*

18. Design and simulation of novel broadband antenna for mobile telecommunication

Li Wei, Qiu Jinghui, Chen Xin, and Suo Ying, *Harbin, China*

CLOSING CEREMONY

12:45 – 13:45

Auditorium 418

VENUE AND CONTACT INFORMATION



Conference venue is Sevastopol National Technique University, Studgorodok, Streletsкая Buhta, Sevastopol, Ukraine.



There is throughfare from the railway station to the SNTU by minibuses number 10, 14, 107, 109, 110 to station “Studgorodok” (Studencheskiy Gorodok).

ORGANIZING COMMITTEE

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