

UkrMW-2026 Program

August 17–20, 2026

Please note that all times in this document are given in Kyiv time (UTC+3)

01. Opening ceremony

17.08.2026 10:00--10:20 • Room #1 (Mon.)

10:00--10:20 Welcome notes to UkrMW 2026 participants

02. Physics and Engineering of Microwaves, Millimeter and Submillimeter Waves (MSMW)

17.08.2026 11:00--18:45 • Room #1 (Mon.)

MSMW-01 CHAIRS: Mykhaylo Balaban, Sergiy Steshenko

11:00--11:15 Spectral Mechanism of Interference Reflection in Multi-Slot Irises of a Circular Waveguide

Steshenko, Sergiy; Kirilenko, Anatoly; Derkach, Vadim; Ostryzhnyi, Yevhenii*

11:15--11:30 Output Characteristics of the 330 GHz Clinotron with Modified Cavity for Practical Applications

Kuleshov, Oleksiy; Vlasenko, Sergey; Kovshov, Yuri; Kishko, Sergey; Kuleshova, Anna; Shumilin, Anton; Khutoryan, Eduard; Kirilenko, Anatoly; Steshenko, Sergiy*

11:30--11:45 Enhancing the Efficiency of Ultralow-Temperature Photon-Magnon Conversion via Photonic-Crystal Waveguides

Odarenko, Eugene; Polevoy, Sergey; Tarapov, Sergiy; Girich, Aleksey; Kalmykova, Tetiana*

11:45--12:00 Using a Pair of Matched Inclined Dielectric Slabs for Mode Filtering in a Fabry-Perot Resonator

Pazynin, Vadym; Veselovska-Maiboroda, Ganna; Sirenko, Kostyantyn; Maiboroda, Maksym; Makhanov, Kanat; Burambayeva, Nursuale; Keusgen, Wilhelm*

12:00--12:15 Approximate Analysis of Scattering by a Finite Nanoscale Silver Tube Under E-Polarization

Svezhentsev, Oleksandr; Senkevych, Olena; Volski, Vladimir; Vanderbosch, Guy*

12:15--12:30 Intermodal Coupling in a Three-Dimensional THz Circuits of a Clinotron and Double Grating BWO

Khutoryan, Eduard; Kuleshov, Oleksiy ; Steshenko, Sergiy*

MSMW-02 CHAIRS: Sergey Polevoy, Yuriy Averkov

13:30--13:45 3D-Printed Dielectric Waveguides: A Study for Millimeter-Wave Applications

Mizrakh, Sergey; Kolenov, Ivan; Nesterov, Igor ; Nesterov, Pavel; Lukash, Alexey; Vertiy, Alexey*

13:45--14:00 Tight focusing of Terahertz Vortex Beams Formed by Radially Polarized Modes

Dubinin, Mykola; Degtyarev, Andrey; Maslov, Vyacheslav; Muntean, Konstantin; Pronin, Yevhen*

14:00--14:15 Grating-Induced Localized Surface Modes in a Grating-Dielectric-YIG Structure Above the Cutoff Frequency

Melezhik, Peter; Poyedinchuk, Anatoliy; Brovenko, Andriy; Khutoryan, Eduard; Senkevych, Olena ; Yahina, Nataliya*

14:15--14:30 Splitting of the Spectrum of Damon-Eshbach Spin Waves in a Structure "Strip Periodic Grating -- Yttrium Iron Garnet Film -- Gadolinium Gallium Garnet Substrate"

Melezhik, Peter; Poyedinchuk, Anatoliy; Brovenko, Andriy; Khutoryan, Eduard; Senkevych, Olena; Yahina, Nataliya*

14:30--14:45 Using Gradient Gratings for Efficiency Enhancement of THz Vortex Laser Beams Forming

Odarenko, Eugene; Maslov, Vyacheslav; Dzyubenko, Mikhail; Radionov, Vladimir*

14:45--15:00 Spin-Torque Microwave Detector Driven by Positive Rectangular Current Pulses

Prokopenko, Volodymyr; Shtanko, Oleh; Sotnyk, Iryna; Prokopenko, Oleksandr*

15:00--15:15 Compact 90-Degree Polarization-Plane Rotators in a Square Waveguide Based on Chiral Irises With Rectangular and L-Shaped Slots

Kulik, Dmitriy; Steshenko, Sergiy; Kirilenko, Anatoly*

15:30--15:45 A Differential SOI-CMOS Stacked-MOSFET RF Switch with Monolithically-Integrated Balun
*Solomko, Valentyn**; Zhang, Yiwen; Hsu, Ting-Li

15:45--16:00 Negative Dispersion and Resonant Mode Hybridization in a Six-Layer Metasurface-Dielectric-Semiconductor Structure
*Averkov, Yuriy**; Averkov, Oleg; Beletskii, Mykola

16:00--16:15 Unsupervised Learning of Artificial "Neurons" Based on Josephson-like Antiferromagnetic Spin Hall Oscillator
*Sotnyk, Iryna**; Prokopenko, Oleksandr

16:15--16:30 A Highly Linear 10 W Shunt Differential SOI-CMOS RF Switch
*Solomko, Valentyn**; Zhang, Yiwen; Hsu, Ting-Li

16:30--16:45 Interaction Between a Tubular Electron Beam and Eigenwaves Fields of a Layered Superconductor of Cylindrical Configuration
Averkov, Yuriy; Averkov, Oleg; Krakhmalova, Olena; Prokopenko, Yuriy*; Williams, Nannette; Yampol'skii, Valery

16:45--17:00 A Long-Range Three-Position Network for Measuring Tweek-Atmospherics
Shvets, Alisa; Shvets, Alexander*; Koloskov, Oleksandr; Bogomaz, Oleksandr

17:15--17:30 Limitation of High-frequency Generation in GaN Diodes under Self-heating and Impact Ionization
*Zozulia, Valerii**; Khodachok, Yevhen; Botsula, Oleg; Tkachuk, Ludmila; Katrich, Volodymyr; Rusina, Oleksandra

17:30--17:45 The Impact of a DC Magnetic Field on the Microwave Properties of a Ferromagnetic Surface Electromagnetic Wave Resonator in the X-Band
*Malyshev, Oleksii**; Prokopenko, Oleksandr; Malyshev, Volodymyr; Melkov, Gennadii

17:45--18:00 Ultrathin Quasi-Two-Dimensional Electronically Tunable Left-Handed Microwave Metamaterials Based on Titanium Dioxide--Ferrite Structures
*Girich, Aleksey**; Polevoy, Sergey; Tarapov, Sergey

18:00--18:15 Optimization of the Deposition Technology of Thin Permalloy Films for Spin-Wave Generation
*Kalmykova, Tetiana**; Krylov, Sergei; Ščepka, Tomáš; Neilinger, Pavol; Derer, Jan; Polevoy, Sergey; Tarapov, Sergiy; Cambel, Vladimir

18:15--18:30 Inverse Anapole Resonator for Hybrid Quantum Systems
*Nedukh, Sergiy**; Girich, Aleksey ; Polevoy, Sergey ; Tarapov, Sergiy

18:30--18:45 Current-Driven Mutual Synchronization of Two Antiferromagnetic Spin Hall Oscillators
*Shtanko, Oleh**; Prokopenko, Oleksandr

03. Microwaves, Radar and Remote Sensing (MRRS)

17.08.2026 11:00--17:45 • Room #2 (Mon.)

11:00--11:15 Characterization of Helicopter Rotor Blade Modulation in UHF and Microwave Bands
*Keusgen, Wilhelm**; Schultze, Alper; Schmieder, Mathis; Peter, Michael; Eichler, Taro

11:15--11:30 A Cost-Effective 3D Radar System with Frequency Beam Scanning for Security Applications
*Volkov, Vadym**; Vavriv, Dmytro; Vinogradov, Volodymyr; Sekretarov, Stanislav; Kravtsov, Andriy

11:30--11:45 Multisensor UAV-Based Technique Development For Landmine Detection
*Mizrakhly, Sergey**; Nesterov, Igor; Lukash, Alexey; Kolenov, Ivan

11:45--12:00 GNSS Reflectometric Ice Thickness Estimation Using Windowed Lomb-Scargle Spectral Analysis
*Trifanov, Vitalii**; Lutsenko, Vladyslav; Soboliak, Oleksandr; Lutsenko, Iryna; Kryvenko, Olena; Popov, Igor

12:00--12:15 Design of a UAV-Deployable GPR Sensor for Landmine Detection
*Mizrakhly, Sergey**; Nesterov, Igor; Lukash, Alexey; Kolenov, Ivan

12:15--12:30 Modelling of Methods for Acoustic Direction Finding of Airborne Objects

*Trifanov, Vitalii**; Soboliak, Oleksandr ; Lutsenko , Vladyslav ; Lutsenko, Iryna ; Luo , Yiyang; Kryvenko, Olena

12:30--12:45 Passive Coastal Sea Wave Monitoring Using Wavelet-Based Decomposition of Diffuse GNSS Reflections

*Trifanov, Vitalii**; Luo , Yiyang; Lutsenko , Vladyslav ; Lutsenko , Iryna ; Soboliak , Oleksandr ; Xuan Anh, Nguyen

MRRS-02 CHAIRS: Wilhelm Keusgen, Felix Yanovsky

14:00--14:15 Data Fusion of Multi-Frequency Radar, Radiometer, and In Situ Sensors for Rain and Cloud Research

*Yanovsky, Felix**; Pitertsev, Aleksander; Unal, Christine M. H.; Russchenberg, Herman W.J.

14:15--14:30 Real-Time Atmospheric Sensing Using the Multiple UAVs

*Averyanova, Yuliya; Sushych, Oleksii; Shostak, Oleksii; Znakovska, Yevhenii**

14:30--14:45 A Low-Cost Portable DoA Estimation Equipment for UAV Detection and Tracking

*Zemlyaniy, Oleg; Tatyanko, Dmytro**; Shostko, Ihor

14:45--15:00 Imitation Jamming to OFDMA Communication Line for Counter Small Remote Sensing UAVs

*Anatoly, Mogyla**; Kantsedal, Valeri; Maltsev, Valentyn

15:00--15:15 Amplitude and Phase Scintillations of L-Band Radio Waves of GNSS

*Tkachenko, Maksym**; Chernogor, Leonid

15:15--15:30 Remote Sensing of Extreme Storm-Time Ionosphere: Global Characteristics and Features

*Bessarabova, Valeriia**; Chernogor, Leonid

15:30--15:45 Basis-Domain Signal Processing for Multi-Sensor UAV Remote Sensing

*Dudnik, Andriy**; Fesenko, Andriy; Meleshko, Mykola; Rakytskyi, Vadym; Toroshanko, Olexandr; Mykolaichuk, Vira

MRRS-03 CHAIRS: Maxim Legenkiy, Igor Prokopenko

16:15--16:30 Remote Sensing of the Ionosphere: The Impact of Geomagnetic Storms on Global Electron Content

*Chernogor, Leonid; Shevelev, Mykyta**; Tsymbal, Anatoliy; Zhdanko, Yevhen

16:30--16:45 Spatial Data Collection Using UAV Sensors and Their Application in Mine Action Operations

*Hutsul, Taras; Khobzei, Mykola**; Tkach, Vladyslav

16:45--17:00 Representation of Complex Large Objects Using Isotropic Scatterers

*Legenkiy, Maxim**; Riasnyi, Yevhenii

17:00--17:15 Radio Facility for Multi-Path Frequency-Angle Remote Sensing of the Ionosphere

*Garmash, Kostyantyn; Chernogor, Leonid; Zhdanko, Yevhen**

17:15--17:30 Remote Sensing of the Disturbed Ionosphere During May 10-11, 2024, Extreme Geospace Storm

*Hrabko, Tymofii**; Chernogor, Leonid; Mylovanov, Yuri

17:30--17:45 Neural Network--Based Inversion of Radar Cross Section for a Three-Point Scatterer System

*Buhai, Maksym**; Legenkiy, Maxim; Khrychov, Vladyslav

04. Antenna Theory and Techniques (ICATT)

18.08.2026 11:00--14:30 • Room #3 (Tue.)

ICATT-01 CHAIRS: Oleksandr Dumin, Oleg Rybin

11:00--11:15 Formation of Radiation Patterns of Small-Element Antenna Arrays for GNSS Interference Suppression

*Konin, Valeriy ; Ishchenko, Oksana**; Kondratiuk, Vasyl ; Kutsenko, Oleksandr

11:15--11:30 Narrow-Beam Antenna for the 8-mm Wavelength Range Based on an Azimuthally Inhomogeneous Dielectric Resonator

*Ostryzhnyi, Yevhenii**

11:30--11:45 Single-Aperture Perforated Screen Providing Three-Passband Pseudo-Elliptic Frequency Response

*Mospan, Lyudmila**; Zelenchuk, Dmitry

11:45--12:00 Suppression of Radio Interference in Satellite Navigation Equipment Using a Dual-Ring Antenna Array

Konin, Valeriy; Ishchenko, Oksana; Kondratiuk, Vasyl; Kutsenko, Oleksandr*

12:00--12:15 Single-Port Quadrifilar Loop Antenna for Counter-UAV EW Applications

Bokhan, Ivan; Lykhograi, Vasyl; Gavva, Dmytro; Gretsikh, Dmytro; Bielousov, Oleksii*

12:15--12:30 Compact Microwave Patch Antenna on Composite Substrate

Rybin, Oleg; Shulga, Sergey; Khardikov, Vyacheslav; Vinnichenko, Sergey; Raza, Muhammad; Shevchenko, Anatolii*

12:30--12:45 A Survey on Fractal Geometric Antennas for Multiband and Ultra-Wideband (UWB) Applications

Mule, Dhanashri; Tambekar, Kshitija*

ICATT-02 CHAIRS: Mariya Antyufeyeva, Gennadiy Pochanin

13:00--13:15 3D Printed Patch-Driven End-Fire Antenna

Pochanin, Gennadiy; Pochanina, Iryna; Ruban, Vadym; Korzh, Vadym; Ogurtsova, Tetiana*

13:15--13:30 Investigation of a Linear Antenna Array With Coaxial Sector Apertures

Shtoda, Dmytro; Antonenko, Yevhenii; Berdnyk, Serhii; Gribovsky, Alexandr; Antonenko, Yuliia; Katrich, Victor*

13:30--13:45 Band Properties of Circular Polarized Corner Antenna under Maximum Directivity

Yeliseyeva, Nadezhda; Berdnyk, Serhii; Cherniavskiy, Vladyslav*

13:45--14:00 Dual-Frequency Antenna Array with Combined Slot-Dipole Elements

Berdnyk, Serhii; Katrich, Victor; Havrylenko, Dmytro; Pshenichnaya, Svetlana; Antonenko, Yevhenii; Garmash, Kostiantyn*

14:00--14:15 Radiation Patterns of Circular Polarized Multi-Band Corner Reflector Antenna

Yeliseyeva, Nadezhda; Cherniavskiy, Vladyslav; Berdnyk, Serhii*

14:15--14:30 Investigation of a Microwave Rectifier for Pulsed LFM Signals

Potapov, Maksym; Drobakhin, Oleg*

05. Ultra-wideband and Ultra-short Impulse Signals (UWBUSIS)

18.08.2026 15:30--16:45 • Room #3 (Tue.)

UWBUSIS-01 CHAIRS: Mariya Antyufeyeva, Oleg Drobakhin

15:30--15:45 Ground Penetrating Radar with a Chirp Signal Using a Vector Network Analyzer NanoVNA

Pochanin, Gennadiy; Ruban, Vadym; Pochanina, Iryna; Ogurtsova, Tetiana; Orlenko, Oleksandr; Kholod, Pavlo*

15:45--16:00 Broadband Permittivity Estimation from Reflection Coefficients Using a Hybrid CNN-SVD Framework

Prokhorov, Mykyta; Drobakhin, Oleg*

16:00--16:15 Fractal Synchronization of Chaotic Modes

Kurskyi, Yurii; Koluzanov, Oleksandr; Oseredchuk, Taras*

16:15--16:30 Fractal and Multi-Fractal Analysis of the Infrasonic Ultra-Wideband Processes Propagating in the Atmosphere

Lazorenko, Oleg; Chernogor, Leonid; Onishchenko, Andriy*

16:30--16:45 Millimeter Waves Reflection in the Range from 38 till 52 GHz from a Water-Based Foam Layer of Various Thicknesses on a Metal Substrate

*Filinsky, Leonid**

06. Mathematical Methods in Electromagnetic Theory (MMET)

19.08.2026 11:00--15:15 • Room #5 (Wed.)

MMET-01 CHAIRS: Nataliya Sakhnenko, Sergii Dukhopelnykov

11:00--11:15 Potential Threats to GNSS Equipment from Signals of Low-Earth-Orbit Satellite Communication System

Konin, Valeriy ; Ishchenko, Oksana; Kondratiuk, Vasyl*

11:15--11:30 Double-Band THz Inverse Polarizer Built on Graphene-Strip-on-Substrate Grating

*Yevtushenko, Fedir**

11:30--11:45 Comparative Analysis of the Accuracy of Estimating the Zeros of Frequency Characteristics Using Fractional-Rational Approximation Methods

*Andreev, Mykhail; Drobakhin, Oleg**

11:45--12:00 Radiation Efficiency of THz Antenna Made of Graphene Covered Nanowire Grating Fed by Modulated Electron Beam

*Herasymova, Dariia**

12:00--12:15 Directivity of Multilayered Microlasers Featuring Silver Film and Distributed Bragg Reflectors

Herasymov, Serhii; Dukhopelnykov, Sergii ; Herasymova, Dariia*

12:15--12:30 Selective Focusing of Light by Gridded Cylindrical Reflectors Made of Thin Silver and Gold Nanowires

Natarov, Denys; Natarova, Anastasiia*

12:30--12:45 Mathematical Models of the Plane E-Polarized Wave Scattering from Impedance Strip Systems Based on Terrible DS-Functions

Vanin, Viktor; Koshovy, George*

MMET-02 CHAIRS: Mstyslav Kaliberda, Dozyslav Kurilyak

13:30--13:45 Backscattering Behavior of a Plane Wave Incident on a Partially Graphene-Coated Lüneburg Lens

Mikhailikova, Iryna; Dukhopelnykov, Sergii; Lucido, Mario*

13:45--14:00 A Mathematical Model of Seismic Wave Scattering on Underground Objects with a Non-homogeneous Boundary Condition

Stiepanova, Kateryna; Dukhopelnykov, Sergii; Styahar, Andriy ; Rubino, Bruno; Pera, Donato; Di Michele, Federica*

14:00--14:15 Physics-Informed Neural Networks for Temporal Electromagnetic Problems in Time-Varying Media

*Sakhnenko, Nataliya**

14:15--14:30 Electron-Beam Diffraction Radiation in Graphene Sheet-Dielectric Waveguide with Finite Graphene Strip Grating

Kaliberda, Mstyslav; Pogarsky, Sergey; Biloshenko, Oleksandr*

14:30--14:45 Integral Scattering Characteristics of Multilevel Impedance Strip Systems, Illuminated by the Plane E-Polarized Wave

Vanin, Viktor; Koshovy, George*

14:45--15:00 E-Polarized Plane-Wave Scattering by a Finite Sinusoidal PEC Gratings via the Nystrom Method

Petryshyn, Andrii; Dukhopelnykov, Sergii; Zinenko, Tatiana*

15:00--15:15 Multi-band Multi-post Resonant Waveguide Section with Independent Tuning of Passbands

Mospan, Lyudmila; Zelenchuk, Dmitry*

07. Direct and Inverse Problems of Electromagnetic and Acoustic Wave Theory (DIPED)

20.08.2026 11:00--16:15 • Room #6 (Thu.)

DIPED-01 CHAIRS: Mykhaylo Andriyevhuk, Oleg Drobakhin

11:00--11:15 Electromagnetic Scattering of a Rounded-Corner Dielectric Cube Sandwiched Between Impedance Surfaces: Method of Auxiliary Sources Formulation

*Iscan, Emre; Usman, Mustefa Badri ; Karacuha, Kamil; Tabatadze, Vasil**

11:15--11:30 Assessment of the Potential Thermal Effects of Urban EM Fields on a Human Model Using FDTD-Based Simulations

*Nozadze, Tamar**

11:30--11:45 Domain Wall Dynamics in Cobalt Micropowders and Nanowires by NMR Inverse-echo in a Rotating Coordinate system

Mamniashvili, Grigor; Gavasheli, Tsisana; Gegechkori, Tatiana; Ghvedashvili, Giorgi*

11:45--12:00 Assessment of Cumulative Electromagnetic Field Exposure at Urban Bus Stops

Nozadze, Tamar; Tchabashvili, Daviti*

12:00--12:15 On the Synthesis of a Compact Multipole Source for a Two-Dimensional Scalar Field with a Rotating Wavefront

Darsavelidze, Ivane; Zaridze, Revaz; Kakulia, David*

12:15--12:30 Tunable Transmission Line Resonators with Stubs

Avdeyenko, Gleb; Zakharov, Alexander; Litvintsev, Sergii*

12:30--12:45 On New Structures of Multipole Sources of Monochromatic Scalar Fields Described by Spherical Wave Functions

Darsavelidze, Ivane; Zaridze, Revaz; Kakulia, David*

12:45--13:00 Frequency Stabilization of Transmission Line Resonators With Capacitive Load

Avdeyenko, Gleb; Zakharov, Alexander; Litvintsev, Sergii*

13:00--13:15 On the Synthesis of a Compact Multipole Source for a Three-Dimensional Scalar Field with a Rotating Wavefront

Darsavelidze, Ivane; Zaridze, Revaz; Kakulia, David*

DIPED-02 CHAIRS: Vasil Tabatadze, Mykhaylo Andriychuk

14:00--14:15 Optimization of Parameters of Quasioptical Transmission Line

Andriychuk, Mykhaylo; Tkachuk, Viktor*

14:15--14:30 Demasking of the Geomagnetism Influence on Tweek-Atmospheric Observation in Sub-Antarctic: the Seasonal Weather Variability Impact

*Gorishnya, Yulia**

14:30--14:45 A Thin Metagrating for Terahertz Wave Attenuation with Tunable/Switchable Absorption Bands

*Perov, Andrey**

14:45--15:00 Robust Real-Time Estimation of Dielectric Permittivity from Ultra-Wideband Reflection Coefficients Using Deep Learning

Prokhorov, Mykyta; Drobakhin, Oleg*

15:00--15:15 Eigenfrequencies of Loaded Ultrasonic Transducers

Borulko, Valentyn; Gritsenko, Viktor*

15:15--15:30 Patch Antenna with Complicated Aperture

Pogarsky, Sergey; Mayboroda, Dmitry; Nesterenko, Mikhail; Kaliberda, Mstyslav; Biloshenko, Oleksandr; Mykhaliuk, Sergey*

15:30--15:45 The Multi-Step Severe Geomagnetic Storm of March 21-26, 2024: A Comparative Analysis, Global Features and Energetics

*Chernogor, Leonid; Zhdanko, Yevhen**

15:45--16:00 Acoustic Effect of a Powerful Submarine Earthquake

Shevelev, Mykyta; Chernogor, Leonid; Liashchuk, Oleksandr; Rudycheva, Olena*

16:00--16:15 Severe Geomagnetic Storm in August 2024

*Chernogor, Leonid; Holub, Mariia; Novytska, Daria**