

**XXIXth International Seminar/Workshop on
Direct and Inverse Problems of Electromagnetic and Acoustic Wave Theory
(DIPED-2024)
September 11-13, 2024**

The 2024 IEEE 29th International Seminar/Workshop on Direct and Inverse Problems of Electromagnetic and Acoustic Wave Theory (DIPED) was held in online format on September 11-13, 2024 in Tbilisi, Georgia. The Tbilisi State University provided the facilities for holding this event because of the Russian Federation invasion to Ukraine. The event has been co-organized by the IEEE MTT/ED/AP Georgia Chapter, Tbilisi State University, Ukraine Section (West) MTT/ED/AP/EP/SSC Joint Chapter, and Pidstryhach Institute for Applied Problems of Mechanics and Mathematics, NASU, Lviv, Ukraine with the support of the IEEE Electron Devices, Microwave Theory & Techniques, and Antennas & Propagation Societies as the technical co-sponsors.

This year's technical program consisted of 52 papers submitted by scientists from Georgia, Germany, Israel, Pakistan, Turkey, Vietnam, and Ukraine, and covered the following sections: EM Field Theory; Numerical Techniques; Complex Media and Structures; Antennas, Inverse Problems and Synthesis; Microwave Devices and Signal Processing; EM Wave Radiation and Scattering; Characterization of Complex Structures; Acoustics and Applications.

Traditionally, the DIPED Organizing and Program Committees recognize the reports of the young scientists and students. The awards were announced at the DIPED-2024 Closing Ceremony. The recipients of the Best Young Speaker Award were Giorgi Korkotadze for "Analytical Prediction of Magnetic Field Shielding for Multilayer Thin Sheets Excited by Loop Sources", Ivane Darsavelidze for "Some Expressions for a Circular Cylinder Wave Fields", Tamar Nozadze for "Assessment of the EM Radiation Level in Tbilisi School Locations" – all from Tbilisi State University, Tbilisi Georgia; Andrii Hlova for "On the Modeling of Acoustic Fields in a Half Space with Acoustically Hard Inclusion" (Lviv National University), Maksim Potapov for "On the Problem of Robustness and Resolution of Estimates

for the Fractional-Rational Approximation Method" (Dnipro National University), Dmytro Havrylenko for "Combined Dipole-Slot Radiating Structures with Parasitic Impedance Dipoles as Functional Elements of Antennas and Antenna Arrays", Olexii Horobets for "Comparison of Radiation Characteristics of a Dipole with a Square Screen depending on their Distance", Oleksandra Skvortsova for "Tilted Cone-Enhanced Ultrawideband Monopole-Slot Radiators in Antenna Arrays" (Kharkiv National University), Roman Andriychuk for "Remote Determination of Physical and Mechanical Parameters of Thin Flat Non-Contrast Piezoelectric Inclusions", Borys Yevstyhneiev for "Altering Magnetic Permeability of a Material Supplemented with Chaotically Embedded Particles" (IAPMM of NASU, Lviv), Taras Nazarovets for "Improved Cylindrical Antenna Model for Assessment of Influence of the EM field on a Human Body" (Lviv Polytechnic National University) – all from Ukraine.

Prof. Revaz Zaridze, Organizing Committee Chairman, Dr. Tamar Nozadze, Organizing Committee Secretary, and Dr. Tamar Gogua, responsible person from the Tbilisi State

University, and whole team of our Georgian colleagues did their best to make the DIPED-2024 successful.



Fig. 1. The cover of DIPED-2024 Proceedings