

IEEE AP-S Distinguished Lecture Workshop

Date: February 5, 2026

Venue: Roma Tre University

Department of Industrial, Electronic and Mechanical Engineering

Via Vito Volterra 62, 00146 Rome, Italy

Building B – Sala Multimediale (3rd Floor)

Hybrid event (on-site and online via Microsoft Teams)



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On February 5, 2026, Roma Tre University hosted an IEEE AP-S Distinguished Lecturer Workshop dedicated to recent advances in metamaterials, metasurfaces, and wave engineering. The event was co-organized by the IEEE AP-S Distinguished Lecturer Program and the IEEE AP-S Technical Committee 4 on Metamaterials (TC4) and held at the Department of Industrial, Electronic and Mechanical Engineering of Roma Tre University.

The workshop was widely advertised both within the hosting institution, Roma Tre University, and through the official communication and social media channels of the IEEE Antennas and Propagation Society, ensuring broad visibility within the AP community. To maximize accessibility and outreach, the event was organized in a hybrid format, and the Microsoft Teams connection link was made publicly available, allowing all interested participants to attend remotely.

The workshop was well attended, with more than 30 participants in person and approximately 20 additional attendees joining online, including faculty members, researchers, and graduate students from Roma Tre University as well as other national and international institutions.

Program and technical content

The workshop followed the announced agenda and featured a full-day technical program comprising invited distinguished lectures by internationally recognized experts in electromagnetics, metamaterials, antennas, and wave engineering.

The event opened at 09:20 CET with a welcome and introductory session, outlining the goals of the workshop and highlighting the role of the IEEE AP-S Distinguished Lecturer Program and the IEEE AP-S Technical Committee 4 in promoting high-level scientific exchange and educational activities.

At 09:30, Prof. Filiberto Bilotti (Roma Tre University, Italy) delivered the first lecture, focusing on space-time modulated metasurfaces and their applications in communication and radar systems. The presentation covered both theoretical aspects and practical implementations, emphasizing reconfigurable and time-varying electromagnetic platforms.

This was followed at 10:10 by Prof. Andrea Alù (CUNY Advanced Science Research Center, USA), who presented recent advances on complex-frequency excitations for wave engineering,

providing a unifying framework for non-conventional excitation paradigms in metamaterials and photonic systems.

After the first two technical lectures, a coffee break was held at 10:50, offering an opportunity for informal discussions and networking among participants.

The technical program resumed at 11:20 with a lecture by Prof. Özlem Özgün (Hacettepe University, Turkey), who introduced the audience to the conceptual framework of transformation electromagnetics, discussing invisibility, advanced field manipulation, and computational techniques for complex electromagnetic problems.

At 12:00, Prof. Stefano Maci (University of Siena, Italy) presented a lecture on direct inversion of the Electric Field Integral Equation (EFIE) for metasurface antennas, offering in-depth insight into analytical and numerical approaches for advanced metasurface-based antenna design.

Following the morning session, a lunch break with catering service was organized from 12:40 to 14:00, further fostering interaction and scientific exchange in an informal setting.

The afternoon session began at 14:00 with Prof. Pai-Yen Chen (University of Illinois Chicago, USA), who discussed non-Hermitian electromagnetics and its applications, highlighting new opportunities enabled by gain-loss engineering and parity-time symmetry.

At 14:40, Prof. Okan Yurduseven (Queen's University Belfast, UK) delivered a lecture on metasurfaces in antennas and beyond, covering applications ranging from electromagnetic imaging to information encoding and sensing.

At 15:20, the Distinguished Lecturer lecture by Prof. Levent Sevgi (Istanbul Technical University, Turkey), entitled “From Engineering Electromagnetics to Electromagnetic Engineering: Teaching and Training Next Generations,” began. The lecture offered a broad perspective on the evolution of electromagnetics, with particular emphasis on education, the correct interpretation of electromagnetic models and measurements, and the role of IEEE AP-S in supporting professional development and outreach.

The workshop concluded at 16:30, following an extended and lively discussion involving both on-site and online participants.

Interaction and Participation

All sessions were followed by active discussions involving both on-site and online participants. Questions and comments addressed theoretical modeling, numerical methods, experimental validation, and emerging applications of metamaterials and metasurfaces. The hybrid format significantly enhanced interaction and allowed effective participation from attendees joining remotely.

Conclusions

The IEEE AP-S Distinguished Lecturer Workshop held at Roma Tre University on February 5, 2026, was highly successful and scientifically enriching. The event provided a comprehensive overview of state-of-the-art research in electromagnetics and metamaterials while fostering interaction between students, early-career researchers, and senior scientists.

Feedback collected from Master students, PhD candidates, and post-doctoral researchers was consistently very positive. Participants particularly appreciated the high scientific level of the lectures, the clarity of the presentations, and the opportunity to engage directly with internationally recognized experts. Several students highlighted the value of the workshop in broadening their perspective on current research trends and in strengthening their motivation toward advanced studies and research careers in electromagnetics and related fields.

The effective collaboration between the IEEE AP-S Distinguished Lecturer Program and the IEEE AP-S Technical Committee 4 on Metamaterials, together with the strong local support from Roma Tre University, resulted in a well-organized and well-attended event, fully aligned with the educational and outreach missions of the IEEE Antennas and Propagation Society.

About the Department of Industrial, Electronic and Mechanical Engineering of Roma Tre University:

The Department of Industrial, Electronic and Mechanical Engineering (DIIEM) of Roma Tre University has been recognized among the Italian Departments of Excellence for the 2023–2027 period within the national university system. Although established only recently, the Department has rapidly positioned itself among the leading national reference centers in the fields of industrial and information engineering.

This prestigious recognition reflects the high quality of the Department's scientific and technological research activities, as well as its educational programs, and confirms the outstanding professionalism of its academic, research, technical, and administrative staff.

DIIEM serves as a center of excellence within Roma Tre University in the areas of industrial, electronic, and mechanical engineering, as well as applied sciences. By synergistically integrating human and instrumental resources, the Department actively contributes to the sustainable development of contemporary society. Its mission is pursued through innovative and multidisciplinary educational programs at all academic levels, excellence in scientific research with strong links to industry, and effective technology and knowledge transfer toward manufacturing, services, research institutions, and public bodies.

Within this framework, education and training of young researchers and engineers play a central role. Students are deeply involved—at different stages of their academic path—in teaching laboratories, research laboratories, and numerous research and technology-transfer projects, ensuring a modern, practice-oriented, and research-driven educational environment.

About IEEE AP-S Technical Committee on Metamaterials:

The IEEE AP-S Technical Committee 4 on Metamaterials provides technical leadership and high-level expertise within the IEEE Antennas and Propagation Society in the areas of electromagnetic materials and devices, metamaterials, metasurfaces, and metastructures. The Committee addresses both fundamental and applied aspects of the field, including analytical and numerical modeling, innovative design methodologies, fabrication techniques, and advanced concepts for reconfigurable and time-varying electromagnetic media.

TC4 fosters the development of electromagnetic materials and metastructures that enable innovation in next-generation technologies, such as wireless communications, radar systems, sensing and imaging, adaptive and intelligent platforms, wearable and IoT devices, and biomedical applications. By promoting strong connections between fundamental research and practical challenges, the Committee contributes to technological advancements with significant scientific and industrial impact.

In addition to its technical mission, TC4 actively promotes and coordinates scientific, dissemination, and educational activities, supporting knowledge sharing across the community and encouraging the involvement of students and early-career researchers in this rapidly evolving field.



Picture 1: Group photo from the workshop.

IEEE AP-S Distinguished Lecturer Workshop


Prof. Filiberto Bilotti

Roma Tre University, Italy

Space-time modulated metasurfaces for applications in communication and radar systems

Prof. Andrea Alù

CUNY Advanced Science Research Center, USA

Complex frequency excitations for wave engineering

Prof. Ozlem Ozgun

Hacettepe University, Turkey

Magic World of Transformation Electromagnetics: Invisibility and Beyond

Prof. Stefano Maci

University of Siena, Italy

EFIE direct inversion for metasurface antennas

Prof. Pai-Yen Chen

University of Illinois Chicago, USA

Non-Hermitian Electromagnetics and Its Applications

Prof. Okan Yurduseven

Queen's University Belfast, Ireland

Metasurfaces in Antennas and Beyond: From Imaging to Information Encoding

 Metamaterials
 Technical Committee

Roma Tre

Prof. Levent Sevgi

Istanbul Technical University, Turkey

From Engineering Electromagnetics to Electromagnetic Engineering: Teaching/Training Next Generations

Picture 2: Slide introducing the workshop speakers.



Picture 3: A collection of photos and selfies from the workshop.



Picture 4: Another set of photos from the workshop.