

2025 Photonics & Electromagnetics Research Symposium - Fall (PIERS-Fall 2025)

**Chiba, Japan
4-8 November 2025**

Pages 1–612

IEEE Catalog Number: CFP25M48-POD
ISBN: 979-8-3315-9916-4



Copyright © 2025, The Institute of Electronics, Information and Communication Engineers (IEICE)
All Rights Reserved

Copyright and Reprint Permissions:

Abstracting is permitted with credit to the source. For permission to reprint or republish any portion of this publication, please contact the copyright holder.

*** This is a print representation of what appears in an electronic format. Some format issues inherent in the e-media version may also appear in this print version.

IEEE Catalog Number:	CFP25M48-POD
ISBN (Print-On-Demand):	979-8-3315-9916-4
ISBN (Online):	978-4-8855-2363-2

Additional Copies of This Publication Are Available From:

Curran Associates, Inc
57 Morehouse Lane
Red Hook, NY 12571 USA

Phone:	(845) 758-0400
Fax:	(845) 758-2633
E-mail:	curran@proceedings.com
Web:	www.proceedings.com

TABLE OF CONTENTS

Conception of Assessment Checkpoints of Broadband Internet Coverage and Services Availability	1
<i>Elmars Lipenbergs, Inga Vagale, Guntis Ancans, Vjaceslavs Bobrovs</i>	
An Infinite Wave Propagation Speed and Magnetic Sources Leading to a Negative Self-inductance for a Conducting Loop: Part (I)	7
<i>Namik Yener</i>	
An Infinite Wave Propagation Speed and Magnetic Sources Leading to a Negative Self-inductance for a Conducting Loop: Part (II)	16
<i>Namik Yener</i>	
Microstrip Antenna for the 802.11 Standard Placed in the PIR Sensor	25
<i>R. Przesmycki, K. Januszczak, N. Nakonieczna-Kubasiak</i>	
Fractal Microstrip Antenna for the Ieee 802.11 Standard Band	33
<i>R. Przesmycki, M. Bugaj, O. Golewski</i>	
Millimeter-Wave Multiband Microstrip Antenna Operating in the 28 and 38 GHz Bands and Selected Bands in the 105 GHz–185 GHz Range	40
<i>R. Przesmycki, M. Bugaj, K. Januszczak</i>	
Analysis of EM Field Uniformity in an Anechoic Chamber in the Frequency Band Up to 1 GHz for Small-Sized Devices	47
<i>R. Przesmycki, M. Bugaj, I. Papuga</i>	
Analysis of Radioelectric Disturbances Produced by Selected Battery-Powered Garden Equipment	56
<i>R. Przesmycki, M. Bugaj, Ł. Dmitruk</i>	
The Role of Conducted Emission Limit in Determining Insertion Loss for Power Line Filters Protecting Multimedia Devices Against Electromagnetic Eavesdropping	66
<i>Marek Bugaj, Rafał Przesmycki, Bartosz Dudziński</i>	
Design of Reflective Multi-Beam Metagratings Leveraging Angle-Sensitive Properties	74
<i>Jiahui Ji, Cong Liu, Shixiong Wang, Lina Zhu, Zhihao Jiang, Jianjia Yi</i>	
Optical Pitch Transformer Chiplet: Enhancing Packaging Beachfront Density	79
<i>How Yuan Hwang, Xiuyun He, Peter O'Brien</i>	
Deep Learning-Based Interference Mitigation for MRC and EGC Receivers in LIS Systems	85
<i>M. Marques da Silva, G. Pembele, R. Dinis</i>	
A Radio-Frequency CMOS Low-Power LC-VCO Integrated with On-Chip Low Dropout Regulator and Bandgap Reference Without Utilizing External Capacitor	91
<i>Yicong Li, Lin Peng, Yukai Feng, Rui Ma, Xuanbin Jiang, Liang Yuan, Gang Wu, Wenliang Lin</i>	
An On-Chip Millimeter-Wave Power Amplifier Utilizing a Adaptative Current Biasing Loop for Efficiency Improvement During Power Backoff	97
<i>Yukai Feng, Lin Peng, Yicong Li, Rui Ma, Xuanbin Jiang, Liaug Yunn, Gang Wu, Wenliang Lin</i>	
Robust Metastructures Using Huygens Congener Dipole Elements	104
<i>Shicheng Wan, Jinhui Shi, Mikhail V. Rybin, Ekaterina E. Maslova</i>	

Land Cover Classification Using Machine Learning With Image Fusion	108
<i>A. Z. Y. Quah, C. M. Toh, H. T. Ewe</i>	
A CMOS Temperature Sensor with a 3σ Inaccuracy of $\pm 0.3^{\circ}\text{C}$ from -45°C to 125°C	115
<i>Jizhen Chu, Hua Fan, Panfeng Zhao, Wei Zhou</i>	
A CMOS On-Chip Wireless Link Integrating with a Wideband Frequency Synthesizer and a High-Gain Power Amplifier	121
<i>Gang Wu, Lin Peng, Yukai Feng, Wenliang Lin, Xuanbin Jiang, Liaug Yunn, Yicong Li, Rui Ma</i>	
Design and Optimization of a Radio Frequency Low-noise Amplifier with Simultaneously Noise and Impedance Matching for Near-field Communication	127
<i>Lingyi Zeng, Lin Peng, Xuanbin Jiang, Wenliang Lin, Gang Wu, Rui Ma, Liaug Yunn, Yicong Li, Yifan Li</i>	
On-Chip Low Power Near Terahertz Chip-to-Chip Data Interconnect Featuring Silicon-Based Metawaveguide and Plasmonic Oscillator	133
<i>Wenliang Lin, Lin Peng, Xuanbin Jiang, Gang Wu, Rui Ma, Liaug Yunn, Yicong Li, Yifan Li</i>	
Field Transition Properties in Higher-Order Coupled-Modes of Symmetrical Dual-Core Optical Fiber Structures	139
<i>N. Kishi</i>	
Investigating the Spectrum of Coherent Exciton and Charge Oscillations along Epigenetically Modified B-DNA Sequences	146
<i>D. Herb, M. Rossini, J. Ankerhold</i>	
70-GHz Photoreceiver Module Using Uni-Travelling Carrier Photodiode with Integrated Micro-Lens	156
<i>Atsunobu Ohta, Ken Usui, Katsuhiro Shindo</i>	
TiNbCTX/Fe ₃ O ₄ Hybrid with Multiple Loss Mechanisms for Efficient Microwave Absorption	159
<i>Nandong Deng, Jun Li, Zeyang Zhang, Juan Cui, Zhongxiang Zhou</i>	
Photonics-Electronics Integrated Packaging and Module Technologies Contributing to Energy Saving for Future Computing	165
<i>Takahiro Matsubara, Takashi Yamamoto, Misa Takahashi, Megumi Oishi, Ayane Toujo, Keiko Oda Hisaaki Nishimura, Tomoyuki Akahoshi</i>	
Analysis of Fiber Optic Networks' Optimisation Methods Based on Pre-Trained Machine Learning Models	171
<i>A. Olins, N. Muracova, P. Morevs, D. Prigunovs, V. Bobrovs</i>	
Design of Compact Wideband Tunable Differential Phase Shifter with Large Phase Shift Range	180
<i>T. Ma, H. M. Liu, Y. Zhang, Y. Y. Jiang</i>	
Inspection of Partial-Circumferential Pipe Wall Thinning Using TM_{01} Mode Microwaves	187
<i>Weiying Cheng</i>	
Shock and Detonation Velocity Sensing at 100 GHz and 30 THz	197
<i>Y. Barbarin, A. Lefrançois, G. Lefrère, L. Poffo, J.-M. Goujon</i>	
Characterization and Validation of Vortex Scattering Matrix for Typical Target Scattering Properties	205
<i>X. E. Cheng, Y. X. Liu, Z. Zhang</i>	

Time of Flight Detection of Anisotropic Phonon-Polariton Dispersions in Ferroelectric Bismuth Titanate	210
<i>S. Kojima, N. Tsumura, H. Kitahara, M. W. Takeda</i>	
Potential Capabilities of UAV-Borne Ground Penetrating Radar for Remote Sensing of Active-Layer Tundra Soil Thickness and Moisture	218
<i>K. V. Muzalevskiy</i>	
Metamaterial-Inspired Slow Wave Structures for Miniaturized Sub-THz Vacuum Tube Power Amplifiers	224
<i>N. M. Ryskin, A. A. Rostuntsova, R. A. Torgashov, D. A. Nozhkin, D. A. Bessonov, V. V. Emelyanov V. V. Galushka, I. A. Navrotsky</i>	
Novel Downhole Seismic Testing Tomographic Algorithm for Geotechnical Site Characterization	230
<i>Erick Baziw</i>	
A Robust Imaging Method for Sparse Targets with Outliers in Forward-Looking Scanning Radar	240
<i>Jiahao Shen, Deqing Mao, Yin Zhang, Jianyu Yang, Yulin Huang</i>	
Simulation and Measurement of Combined Target Scattering Characteristics of High-Modal Electromagnetic Vortex Waves	246
<i>Y. X. Liu, X. E. Cheng, Z. Zhang</i>	
Dielectric Measurement for Liquids Up to 16 GHz by the Cut-Off Circular Waveguide Reflection Method	253
<i>Kouji Shibata, Masaki Kobayashi, Yuki Kawahara</i>	
Perturbation-Based Nonlinearity Analysis of Spin Waves in Application to Neuromorphic Computing	263
<i>J. Chen, Y. Song, A. Hirose</i>	
Development of Large Active Area Photodetector for Broadband Low-Latency Backbone System in Space Communication	267
<i>T. Umezawa, A. Matsumoto, H. Kotake, Y. Hirota, S. Shinada, K. Akahane</i>	
Design of an Ultra-low Profile Dual-Band Wide-Beam Quadrifilar Helix Antenna for UAV GNSS Applications	271
<i>Y. J. Zeng, H. M. Liu, J. H. Ren, J. T. Sri Sumantyo, Y. Zhang</i>	
Electron Scattering in an 8-nm FinFET Using FDTD	280
<i>Kai Ren</i>	
Conditions of Amplification of Electromagnetic Waves in a Nonlocal Plasma with an Inverse Electron Distribution Function and Recommendations for Practical Implementation	286
<i>Anatoly Kudryavtsev, Eugene Bogdanov, Jingfeng Yao, Chengxun Yuan</i>	
Multipole Coupling in Dielectric Metasurfaces	290
<i>I. Allayarov, A. B. Evlyukhin, A. Calà Lesina</i>	
Equilibrium Propagation Training Neural Network Based on Coherent Ising Machine	297
<i>Chenrui Fan, Bo Lu, Chuan Wang</i>	
Equivalent Circuit-based Design of Flexible Multilayer Metamaterials for Ultra-wideband Microwave Absorption	303
<i>Zhuyu Hua, Jun Li, Xinqi Wang, Xilong Li, Zhongxiang Zhou</i>	

Electromagnetic Fields of Vibrotransport Sources of Radiation at Sublight Speeds of Motion	312
<i>L. Alexeyeva, I. Kanymgazyeva</i>	
Effect Analysis of Thermal Deformation on the Phase Center of Phased Array Antenna	318
<i>X. W. Zhao, J. X. Lu, Y. H. Zhang</i>	
Enhanced Photovoltaic Power Forecasting with a Stacking Ensemble of Hybrid Models	322
<i>Hao Yin, Genghua Zhang, Jiachen Li, Sijie Chen, Xuesong Guo, Jiangtao Huangfu, Peiying Lin</i>	
A Simulation of Pulsed Eddy Current Testing for Detecting Local Thinning in Corrosion-Resistant Coated Steel Plates	332
<i>D. Kitagawa, K. Endo, T. Itaya</i>	
A High-Precision Sagnac Effect Correction in Ultra-Long-Distance Field Fiber Time Transmission	337
<i>B. Liu, X. X. Guo, J. Chen, P. Y. Sun, T. Liu, R. F. Dong, S. G. Zhang</i>	
A Star-Topology Fiber-Optic Time Transfer System for Multi-User with Ps-Scale Stability	344
<i>Xinxing Guo, Jiahao Wen, Bo Liu, Jiang Chen, Xin Wang, Kai Xing, Tao Liu, Ruifang Dong Shougang Zhang</i>	
Research Progress of Planar Distributed Traveling-Wave Tube at W-Band	348
<i>Wenbo Wang, Cunjun Ruan, Zihan Liu, Yitao Hou</i>	
Light-ELF: Harnessing Optical Topological Links and Knots as High-Throughput Information Carriers	355
<i>Zhe Weng, Jianping Ding</i>	
Application of Probing Signals with a Zero Autocorrelation Zone to Enhance the Quality of Space Debris Images in Inverse Synthetic Aperture Radar	359
<i>R. N. Ipanov, A. A. Komarov, A. I. Baskakov, M. S. Mikhailov</i>	
Near Terahertz Closely-Packed Channel Crosstalk Attenuation Enabled by Field Confined Microstrip Line for Silicon-Based Data Link	367
<i>Zeheng Wang, Wen Liang Lin, Lin Peng, Rui Ma, Yicong Li, Guangqiang Liu, Liaug Yunn, Yukai Feng Gang Wu</i>	
Spin-Wave Dynamics and its Physical Picture Effective and Useful in the Forthcoming Physical Artificial Intelligence Era	373
<i>Akira Hirose, Kimihiro Akiyama, Yuta Miyasaka, Ryo Natsuaki</i>	
Joint Design of Multi-Pulse Sequences and Receiving Filters in Forward-Looking Scanning Radar	379
<i>Xian Zhao, Deqing Mao, Yongchao Zhang, Yin Zhang, Yulin Huang, Jianyu Yang</i>	
Real-Time Photonic THz Continuous-Wave Imaging Integrating Super-Resolution and Hyperspectral Analysis	387
<i>Xing Fang, Lu Zhang, Tianyu Li, Oskars Ozolins, Xiaodan Pang, Xianbin Yu</i>	
Experimental Study on Monitoring Typical Defects in Small and Medium-Sized Bridges Based on Ultra-Weak FBG Sensing Array	392
<i>Xinyan Lin, Qiuming Nan, Sheng Li, Zhi Li, Lina Yue, Fang Liu, Yan Yang, Ai Zhou</i>	
A Dual-channel Divide-and-Conquer Approach for Multi-static SAR Fusion Imaging	403
<i>Lu Jiao, Haihui Huang, Yulin Huang, Jiahao Shen, Yin Zhang, Deming Guo, Huaigen Zhang Wenjing Wang</i>	

980-nm Low-Threshold Quantum Dot Laser for In-Vehicle Networks	411
<i>Kazuki Ota, Keisuke Nakamura, Kouichi Akahane, Atsushi Kanno</i>	
Optimizing Optical Ground Station Transmitter Telescope for Free Space Optics Uplink	416
<i>Giulio Cossu, Ernesto Ciaramella</i>	
Runway Exit Prediction for Landing Aircraft Based on Ultra-Weak Fiber Optic Bragg Grating Sensing Array and Deep Learning	421
<i>Shuokai Wan, Sheng Li, Zhi Li, Lina Yue, Yimin Xu, Yan Yang, Fang Liu, Qiuming Nan</i>	
Metal-halide Perovskite Resonant Microcrystals with Improved Photostability and Lasing Properties	427
<i>E. V. Sapozhnikova, D. A. Semyonov, G. A. Verkhogliadov, D. A. Tatarinov, A. P. Pushkarev</i>	
Controlling the Ba / Sr Ratio in U-Type $\text{Ba}_{\text{x}}\text{Sr}_{4-\text{x}}\text{Co}_2\text{Fe}_{36}\text{O}_{60}$ Enables the Stabilization of the Spin Cone Symmetry Achieving the Magnetoelectric Coupling Effects at Room Temperature	431
<i>Shuang Wang, Jun Li, Huantong Wu, Dongpeng Zhao, Zhongxiang Zhou</i>	
Effect of Self-Heating in a 25-Layer Stacked QD-OSA	438
<i>N. Chiyo, A. Matsumoto, S. Nakajima, T. Umezawa, K. Akahane, T. Maeda, H. Sotobayashi</i>	
Analysis of Snow and Water Effect on EBG Waveguides for Microwave Snow Melting to Prevent Electromagnetic Wave Leakage	443
<i>K. Hatazawa, M. Nakatsugawa, T. Maruyama, T. Nakamura, T. Yamamoto, M. Omiya, N. Suematsu</i>	
Current Efficiency Enhancement of Quantum Dot Light-Emitting Diodes Utilizing Nickel Oxide Hole Injection Layers with Different Preparation Methods	448
<i>M.-H. Lu, Z.-W. Lu, C.-E. Chang, H.-C. Yu</i>	
Improvement of Reading Accuracy of IC Tags Attached Near Multiple Conductor Cylindrical Pipes	452
<i>Akari Kominami, Yusuke Fukase, Hiroshi Sakuraba, Toshihiko Shibazaki</i>	
Nonlinear Compensation Based on Optical Phase Conjugation and Dispersion-Flattened Fibers for PAM4 Transmission	461
<i>K. Kurome, K. Osawa, D. Hisano, A. Maruta, K. Mishina</i>	
Plasmon-Exciton Coupling in Coumarin C-151 Sensitized Nanorod Systems: a DFT, TDDFT, and Surface Plasmon Study	466
<i>Alok Singh, Richa Verma, Pratima Rajput</i>	
Wideband Design of a Suspended Planar Dipole Antenna with Double-Tuned Impedance Matching	472
<i>Ji-Haeng Cho, Hae-Won Son</i>	
Implementation of Cognitive Radio on an SDR Platform within a Private 5G Open Radio Access Network	476
<i>Roberts Pildavs, Sergejs Šukšins, Tianhua Chen, Anna Karklina, Nadezda Ungure, Igors Liplanskis Romans Jerjomin, Elans Grabs, Aleksandrs Ipatovs</i>	
Hybrid Convolutional and Recurrent Neural Networks for Nonlinear Distortion Compensation in Fiber-Optic Communication Lines	484
<i>Igors Liplanskis, Natalja Muracova, Vjaceslavs Bobrovs, Lilita Gegere, Elans Grabs, Aleksandrs Ipatovs</i>	
Acoustic Super-Absorber Enhanced by the Physics of Duality Symmetry	493
<i>Sichao Qu, Min Yang, Nicholas Fang</i>	

Optical Dispersion Properties of Cyanobiphenyl Liquid Crystals and Commercial Nematic Mixtures in the Visible and Near-Infrared Spectrum	498
<i>B.-J. Guo, W. Lee</i>	
Dual-Frequency Dielectric Properties in Binary Mixtures of Bent-Core and Calamitic Liquid Crystals	506
<i>P.-C. Wei, W. Lee</i>	
Analysis of Downlink and Uplink Data Rates in 5G Frequency Bands	509
<i>Guntis Ancāns, Arnis Ancāns, Elmārs Lipenbergs, Inga Vagale, Vjačeslavs Bobrovs</i>	
All-Optical Relaying for Broadband and Low-Latency Intersatellite Optical Network	514
<i>S. Shinada, H. Kotake, T. Umezawa, Y. Hirota, H. Furukawa</i>	
Simulation of Electromagnetic Waves Propagation in Staggered Double Grating Slow-Wave Structure in the Presence of Electron Beam and Periodic Permanent Magnetic Fields	521
<i>R. A. Torgashov, O. R. Abramov, N. M. Ryskin</i>	
Development of 75–110GHz Front-End LNA Module for the 19-Pixel Radio-Astronomical Imaging Array	527
<i>Yen-Lin Chen, Jerry Shiao, Tzihong Chiueh</i>	
On Radiometric Resolution Characterization in the Moon-Borne Monostatic/Bistatic SAR Systems: Orbital Perturbation Effects and Performance Implications	531
<i>Zhen Xu, Kun-Shan Chen, Ying Yang, Jiahao Wang, Jiaqi Chen</i>	
Low-Complexity Continuous Learning for Digital Predistortion with Multi-State Activation Functions	542
<i>B. Y. Li, X. Hu, X. W. Meng, L. T. Zhang, S. Y. Zhang, H. P. Lu, W. D. Wang</i>	
Unusual LF Oscillations Associated with a X5.89-Class Solar Flare in May 2024: Possible Link to EUV Emissions	547
<i>A. Kubota, H. Ohya, F. Tsuchiya, H. Nakata</i>	
Finite-Element Electromagnetic Modeling of an Echelette Resonator for a THz-Band Gyrotron	553
<i>A. B. Adilova, A. G. Rozhnev, N. M. Ryskin</i>	
A Low-Frequency Magnetic Metasurface Absorber for Electromagnetic Noise Visualization	557
<i>Akihiro Tatsuta, Shinichi Tanimoto, Makoto Iyoda, Ryota Nagai, Masaki Arimatsu, Satoshi Yagitani</i>	
Cavity Mode Modulation in Micro-Nanolasers via Localized Surface Plasmon Resonance	565
<i>Jiahao Dong, Yu He, Minghang Liang, Yongchen Miao, Ruichen Zhu, Pengyan Wen</i>	
A Consideration for Predicting Measured Values from Numerical Calculations of Electromagnetic Wave Circuit	570
<i>A. Imoto, N. Nakashima</i>	
Compact TE_{01} - TE_{02} Mode Converter Based on Metasurface	575
<i>Di Guo, Quansheng Zhang, Changsheng Shen, Ningfeng Bai</i>	
A Ka-band All-Metal Beam Scanning Reflector Antenna for High Power Microwave Applications	578
<i>Chenkun Xu, Liang Liu, Ling Zhou, Junyi Yang, Qi Chen</i>	
Advanced-Residual Modeling for Power Amplifiers in Millimeter-Wave Systems	584
<i>S. Y. Zhang, X. Hu, B. Y. Li, X. W. Meng, H. P. Lu, L. T. Zhang, W. D. Wang</i>	

Bioluminescent Response in Plant Leaves Generated by Magnetic Fields of Multiple Frequencies	590
<i>M. Masugi</i>	
Fiber Optical Parametric Amplifiers in 40 Gbps WDM Systems: Performance Limits and Optimization	595
<i>Shreyas Srinivas Rangan, Toms Salgals, Jurgis Porins</i>	
Anion Engineering in Sodium-Based Additives Enhances Perovskite Light-Emitting Diode Performance	600
<i>Yucai Yuan, Yuxiang Gao, Shiang Zhang, Zhixiang Ren, Baodan Zhao, Dawei Di</i>	
Visible Light Metalens Using Liquid Crystal	606
<i>Quansheng Zhang, Di Guo, Changsheng Shen, Ningfeng Bai</i>	
Numerical Study of Light Scattering in a Hollow Sphere Using Mie Theory	610
<i>R. Sawada, H. Fujii, K. Kobayashi, M. Watanabe</i>	
Comparative Study of Optical Properties Evaluation Using Machine Learning	613
<i>H. Nozaki, H. Fujii, K. Kobayashi, M. Watanabe</i>	
A Physics-guided Wireless Localization Framework for Communications-Based Train Control	618
<i>Yunxi Mu, Hao Qin, Xinyue Zhang, Xingqi Zhang</i>	
Physics-Informed Deep Reinforcement Learning for Optimal Wireless Access Point Deployment in Railway Environments	624
<i>Hao Qin, Yunxi Mu, Xinyue Zhang, Xingqi Zhang</i>	
Simulation-Based Evaluation of Microwave Leakage Mitigation Mechanisms for Process Openings	630
<i>A. Fujita, T. Kinoshita, K. Kikuchi, K. Murayama, M. Yoshida</i>	
A Two-Level Coarse Model Assisted Space Mapping Optimization Technique for Waveguide Filter Design	635
<i>Mutian Li, Feng Feng, Jinyi Liu, Jiali Zhang, Qi-Jun Zhang</i>	
Azobenzene Derivatives Regulate the Crystallization of Inorganic Perovskite Solar Cells	642
<i>Shiang Zhang, Yuxiang Gao, Yucai Yuan, Baodan Zhao, Dawei Di</i>	
Neuro-TF Approach for Parametric Modeling of Dual-Band Microwave Components: A Microstrip Square Open-Loop Resonator Diplexer Case Study	647
<i>Jingpei Zhang, Feng Feng, Yang Yu, Kaixue Ma, Qi-Jun Zhang</i>	
An EM Parametric Modeling Method Combining Phase De-Embedding and Neuro-Coupling Matrix Technique	652
<i>Shaochang Liu, Feng Feng, Wei Liu, Xiaolong Li, Qi-Jun Zhang</i>	
An Efficient Linear-to-Linear Polarization Conversion Metasurface for THz Applications	658
<i>Muhammad Fayyaz Kashif, Shobit Agarwal, Junaid Yaseen, Zahra Mazaheri, Antonio Iodice Antonello Andreone, Daniele Riccio</i>	
An Analytical Design of the Dual-mode Dual-level J-inverter for Dual-band Filters	663
<i>K. Kikuya, N. Miyata</i>	
An Ultra-Thin Planar Inverted-F Antenna for Metal-Mount UHF RFID Tags	672
<i>T. Kakubari, N. Miyata</i>	

Angularly Stable Wheel Shaped VO ₂ Controlled Cross Polarization Converter for THz Applications	678
<i>Shobit Agarwal, Muhammad Fayyaz Kashif, Junaid Yaseen, Zahra Mazaheri, Daniele Riccio Antonello Andreone, Antonio Iodice</i>	
Sustainable Learning Multi-State Modeling of RF Power Amplifiers in Terahertz Communication Systems: Residual Deep Networks and Dynamic Calibration Optimization	682
<i>X. W. Meng, X. Hu, B. Y. Li, Z. Y. Chang, M. Zhou, W. D. Wang</i>	
Discontinuous Landslide Monitoring in Mountain Passes Using Ground-Based SAR	690
<i>Y. Koyama, Y. Izumi, S. Kawamura, F. Nurzaman, H. Ishii</i>	
A Recurrent Neural Network Approach to Predicting Large Earthquakes	695
<i>Shuya Hara, Masao Masugi</i>	
Using UWB Impulsed Surface and Refracted Waves for Assessing the State of the Active Layer	700
<i>K. V. Muzalevskiy</i>	
Synthesis of Ruthenium Complexes Under Microwave Irradiation and Their Analysis by NMR Spectroscopy	705
<i>M. Yamauchi, T. Matsumura, K. Takahashi, Hirokazu Iida</i>	
Coherence Attenuation of Slightly Back-Scattered Waves in Continuous Random Media	712
<i>Mitsuo Tateiba, Yukihisa Nanbu</i>	
High-Radiance Near-Infrared Perovskite Light-Emitting Diodes with Suppressed Efficiency Roll-Off	718
<i>Yangning Fan, Yongchen Ji, Yinghao Dong, Yichen Yang, Kangshuo Hui, Yu Pan, Wenjing Qi, Zhe Liu Chen Zou, Baodan Zhao, Dawei Di</i>	
Suppressing Auger Recombination in Quasi-2D Lead-Bromide Perovskites for Low-Threshold ASE	723
<i>Yichen Yang, Jiying Xu, Runchen Lai, Chen Zou, Baodan Zhao, Dawei Di</i>	
Temperature and Stress Analysis of Single-Ridge GaN-Based FP Laser Diodes	728
<i>Minghang Liang, Yu He, Jiahao Dong, Pengyan Wen</i>	
Improvement of Microwave Chamber Heating Uniformity Based on Surface Vibration	733
<i>Sijie Chen, Xuesong Guo, Xiangquan Xiang, Chun Huang, Peiying Lin, Jiangtao Huangfu</i>	
Temperature-Compensated Magnetic Field Sensing System Based on Optoelectronic Oscillator	740
<i>M. Deng, T. Q. Wang, S. F. Gu, J. S. Zhang</i>	
Temperature-Induced Optical Degradation in RGB Primary Color Lasers and LEDs	744
<i>Yu He, Junshu Han, Jiahao Dong, Minghang Liang, Pengyan Wen</i>	
EAF and EF-Based Performance Evaluation of in-Vehicle Multimode Optical Fiber Links Under Harsh Vibration Conditions	749
<i>Ryotaro Yamashita, Atsushi Kanno</i>	
Two-Dimensional Radio Frequency Touch Sensing Method	755
<i>Chun Huang, Xuesong Guo, Sijie Chen, Yaqing Huang, Shiyu Wang, Jiangtao Huangfu</i>	
Measurement of a Meander Line Antenna in Skin Phantom for Biomedical Application	762
<i>Ngu War Hlaing, Cheng Wei Ping, Kamilia Kamardin, Yoshihide Yamada, Angela Amphawan</i>	
Antenna Reconstruction Technology Based on Arc Discharge	771
<i>Xuesong Guo, Chun Huang, Xiangquan Xiang, Sijie Chen, Yaqing Huang, Shiyu Wang, Jiangtao Huangfu</i>	

Equatorial Spread F Classified by CNN Model from Campina Grande in Brazil During 2024–2025	778
<i>Z. Wang, C. Qiu, J. K. Shi, W. D. Zhong, Z. K. Liu, G. J. Wang, P. D. Gao, Z. W. Cheng</i>	
Material Optimization in Radio Propagation Based on Differentiable Ray-Tracing	783
<i>Yangxu Li, Yifan Wu, Yuxuan Li, Yuhao Shen, Hai Lin</i>	
A Design of In-Vehicle Electronic Rearview Mirror System Based on High-Speed Serial Bus	788
<i>Qi Lin Yang, Le Le Han, Ling Chen Xu, Guo Chun Wan</i>	
Hilbert-Structured Antenna Design for Microwave Heating in Moving Systems	793
<i>Xiangquan Xiang, Sijie Chen, Xuesong Guo, Yaqing Huang, Shiyu Wang, Jiangtao Huangfu</i>	
A Novel U-Shaped POF Sensor Structure for Intensity Modulation	800
<i>Le Le Han, Qi Lin Yang, Ling Chen Xu, Guo Chun Wan</i>	
Fiber Events Recognition in Integrated Sensing and Communication Systems Based on Signal State of Polarization Analysis	805
<i>J. C. Wang, T. Y. Liu, J. H. Zhou</i>	
A Magnetic Posture Sensing Method for Catheters	811
<i>Shiyu Wang, Xiangquan Xiang, Xuesong Guo, Sijie Chen, Yaqing Huang, Jiangtao Huangfu</i>	
D-Region Ionospheric Disturbances Caused by Fireballs and Satellite Reentries Detected by Octave Vlf/Lf Transmitter Signals	819
<i>H. Ohya, R. Furuya, F. Tsuchiya, M.-Y. Yamamoto, T. Washimi, H. Nakata, T. Watanabe, M. Kobayashi</i>	
An Efficient Detection Method for Meat Freshness Based on Deep Learning	826
<i>Jun Li, Guang Yi Zhou, Jia Le Ding, Guo Chun Wan</i>	
A Finite Element MOR-Based Rational Transfer Function Extraction Technique for Parametric Modeling of a Cavity Waveguide Filter	830
<i>Ke Liu, Feng Feng, Wei Liu, Kaixue Ma, Qi-Jun Zhang</i>	
Decoupling-Free Wearable MIMO-UWB Antenna Design Based on Polarization Diversity	836
<i>Guang Yi Zhou, Jun Li, Jia Le Ding, Guo Chun Wan</i>	
A Low-Profile Cross-Polarization Conversion Metasurface for Sub-THz Applications	842
<i>Shobit Agarwal, Muhammad Fayyaz Kashif</i>	
An Improved LISN with Calibration-Based Modal Separation for SMPS Noise and Impedance Characteristics Measurement	846
<i>Hongji Xu, Mingyang Li, Yuxiang Xiao, Aixin Chen</i>	
NbC/n-Si Based CMOS Compatible Heterojunction Photodetector for Visible to Near-Infrared Sensing Applications	856
<i>D. Somaweera, S. Akter, H. T. Hattori, M. Ghodrat, A. E. Miroshnichenko</i>	
Enhanced UNet with Intermediate Feature Refinement for Improved Remote Sensing Image Segmentation	862
<i>Zesheng Lai, Yanpeng Jia, Lizhen Yang, Chang Xi, Hai Lin</i>	
Wearable Manual Control-Based Mode-Reconfigurable Orbital Angular Momentum Patch Antenna	868
<i>Ling Zhou, Lunyi Liu, Chenkun Xu, Zhengxiang Luo, Qi Chen</i>	

High-Power Array Antenna Based on Gap Waveguide Technology	874
<i>Zhengxiang Luo, Liang Liu, Chenkun Xu, Ling Zhou, Qi Chen</i>	
Design of a Low-Cost Leakage Cable in the UHF Band	882
<i>Chi-Fang Huang, Hao-Wen Pai</i>	
A Significant but Overlooked Aspect of Displacement Current Density	885
<i>Toshio Hyodo</i>	
Investigation of Surface Plasmon-Enhanced Optical Properties of Coumarin Dye in the Vicinity of Graphene-Coated Core-Shell Nanomaterials for Photovoltaic Applications	892
<i>Pratima Rajput, Alok Singh, Richa Verma, Manmohan Singh Shishodia</i>	
Development of the Radiotransparent Radome Using 3D Printing	898
<i>K. S. Kharlamp'ev, K. S. Sychev, V. A. Permyakov, M. S. Mikhailov, A. M. Mikhailov, D. A. Evseev</i>	
The Possibility of Using Additive Technologies for the Manufacture of Dielectric Substrates of Printed Antennas	905
<i>K. S. Kharlamp'ev, K. S. Sychev, V. A. Permyakov, M. S. Mikhailov, A. M. Mikhailov, D. A. Evseev</i>	
3D-Printed Rectangular-to-Circular Waveguide Mode Converters: Design, Fabrication and Experimental Validation at X-Band	911
<i>Nezah Balal, Aviad Michael</i>	
Broadband Low-Profile Antenna with Wide-Angle Scanning Based on CTS Array	916
<i>S. V. Polenga, R. O. Ryazantsev, E. A. Strigova, A. V. Stankovsky, A. D. Poligina</i>	
Silicon Photonic Phase Controlled Opto-Optic Beam Steering	922
<i>Adam Helmy, Hiva Shahoei, Mason Tuller, Mitchell A. Thornton, Duncan L. MacFarlane</i>	
The Fiber Grating Hydrophone	929
<i>Wei-Chen Li, Chang-Chun Kuo, Wen-Fung Liu, I-Nan Chang</i>	
Digital Correlation System for Noise-Parameter Measurements on Low-Noise Amplifier	932
<i>D. Gu, X. Lu, D. G. Kuester</i>	
The Complex Modified Kummer Confluent Hypergeometric Function and Its Application to the Theory of Waveguides	938
<i>Georgi Nikolov Georgiev, Mariana Nikolova Georgieva-Grosse</i>	
Gas-Pressure Sensor Based on a Fiber Bragg Grating	949
<i>Chia-Cheng Cheng, Yi-Jhen Li, Wen-Fung Liu, Kun-Huang Chen</i>	
A D-Band Metamaterial Substrate-Integrated-Waveguide (SIW) Slot Antenna in Glass-Based IPD Technology	953
<i>Shuping Li, Yusi Wang, Cheng-Hua Tsai, Chang-Sheng Chen, Yu-Hsiang Cheng, Pai-Yen Chen Chung-Tse Michael Wu</i>	
High Efficiency Ku-Band GaN Power Amplifier MMIC for MUAV Data Link Systems	962
<i>Youn Sub Noh, Hyung Seok Lee, Sung-Bum Bae</i>	
Exploring Optical Interconnect Architectures for Scalable and High-Performance AI Clusters	965
<i>Takeru Inoue, Nariaki Tateiwa, Yoshiaki Sone, Koichi Takasugi, Masahisa Kawashima</i>	

Optical Carrier Microwave Interference Sensing System Based on Autler-Townes Splitting	972
<i>Tianqi Wang, Ming Deng</i>	
Advanced IoT Home Security System Powered by Deep Learning	977
<i>Pyi Phyo Aung, Yitian Gan, Ngu War Hlaing</i>	
All-Optical Convolutional Neural Network Architecture for Pre-Sensor Computing	986
<i>Caihua Zhang, Ruidong Li, Zheng Huang, Conghe Wang, Shukai Wu, Kejian Zhu, Hongwei Chen</i>	
Gas Measurement by Surface Plasmon Sensor Using Rotating Analyzer Method	993
<i>T. Suyama, T. Kasatani</i>	
Analysis of Signal Quality and Device Requirements for Interference Detection in Simultaneous Reception of Optical OFDM Signals	998
<i>Kyogo Kisou, Kazunori Hayashi, Tsuyoshi Konishi</i>	
High-Frequency Signal Monitoring for Beyond 5G Using Optical Measurement Techniques	1002
<i>Shuta Azu, Tomoki Tsuji, Shizen Nakayama, Tsuyoshi Konishi</i>	
High-Frequency Sampling Pulse Generation Using Frequency Translation Techniques	1007
<i>K. Ohkushi, T. Konishi</i>	
Multi-Band SAR and LiDAR-Aided Forest Height Estimation with Regional Adaptability Validation	1010
<i>Yaxuan Xing, Hong Yang, Yue Sun, Wen Jiang, Feng Wang, Feng Xu</i>	
Measurement of Attenuation Characteristics in Rainy and Foggy Conditions in Millimeter-Wave and Sub-Terahertz Bands	1015
<i>T. Watanabe, M. Takanashi, I. Takai, H. Sawada, K. Inagaki, I. Watanabe, N. Sekine, A. Kasamatsu</i>	
Real Time Precise Tracking of Multi-Pedestrians by Multiple Millimeter-Wave Radars	1023
<i>P. Kowatcharakul, U. Mankong, S. Kitthamkesorn, K. Woradit</i>	
High Performance of Long-Wavelength Infrared Quantum Cascade Detector Based on Coupled Quantum Well Design	1028
<i>Kazuki Horita, Tatsuo Dougakiuchi, Shohei Hayashi, Joel Pérez Urquizo, Kazuue Fujita</i>	
A Novel Use Case of Future Multi-Carrier Interconnection — Swift and Low-Cost Disaster Recovery via Carrier Cooperation	1033
<i>Sugang Xu, Noboru Yoshikane, Xiaocheng Zhang, Subhadeep Sahoo, Sifat Ferdousi, Masaki Shiraiwa Yusuke Hirota, Takehiro Tsuritani, Shigenari Suzuki, Massimo Tornatore, Yoshinari Awaji Biswanath Mukherjee</i>	
NURBS-Based Surface Reconstruction from Point Clouds for Electromagnetic Target Modeling	1046
<i>Qianyan Shen, Ruoming Zhang, Hai Lin</i>	
Versatility of Transformer-Based Surrogate Model for Designing Microwave Filters	1051
<i>K. Yamada, T. Nomura, S. Nagaoka, T. Kuroki, N. Miyata</i>	
Multi-Band 8-Element Fractal-Inspired MIMO Antenna with Mutual Coupling Reduction Using Decoupling Line Integration	1058
<i>Jawad Ahmad, Mohammad Hashmi</i>	
Fundamental Characteristics of Gas-Liquid Discharge Plasma Plumes	1066
<i>Hailu Wang, Xingbao Lyu, Liang Guo, Lin Miao, Chengxun Yuan</i>	

Design of a Compact Dual-Mode Antenna with Distinct Radiation Patterns for Wban Applications	1076
<i>Jawad Ahmad, Mohammad Hashmi</i>	
Fixed Latency Computing	1083
<i>Naoyoshi Okawa, Jun Ogawa, Yuji Nomura</i>	
Localization and 3D Imaging Method of Magnetic Target via UAV Aeromagnetic Sensing	1088
<i>Zhitao Du, Menghui Qin, Liming Fan, Hao Hu</i>	
Enhanced Dielectric Loss in NiS/Graphene for Optimizing Microwave Absorption	1095
<i>Zhengyu Zhang, Jun Li, Zegeng Chen, Xinqi Wang, Zhongxiang Zhou</i>	
Design of Wide Band Planar Antennas @2.45 GHz Suitable for Ambient Energy Harvesting	1101
<i>A. Castaño, J. J. Garcia-Garcia</i>	
Advanced Tri-Layer Ni/Al/Au p-contact Scheme for 292 nm AlGaIn UVB LEDs: Simultaneous Enhancement of Reflectivity and Conductivity	1106
<i>Hamida Zia, Amina Yasin, Kohei Fujimoto, M. Nawaz Sharif, Hiroyuki Yaguchi, M. Ajmal Khan Hideki Hirayama</i>	
Data Center Scale Disaggregated Computing with Next Generation Computing Technology: Expether ("Expressether")	1112
<i>Ryuta Niino, Junichi Higuchi, Yoichi Hidaka</i>	
Low-Pressure IBBCEAS System for High-Accuracy Measurement of NO ₃ in Nocturnal Atmosphere	1119
<i>Xiangpeng Luo, Meng Wang, Jun Chen</i>	
On-Chip Terahertz Wave Power Enhancement Using an $\mathbf{8} \times \mathbf{1}$ UTC-PD Array Integrated with Microstrip Antenna and Coupled-Line Wilkinson Combiner	1123
<i>H. Ssali, Y. Kamiura, K. Kato</i>	
Experimental Demonstration of Phase-Sensitive Amplification in Silicon-Integrated Waveguide	1130
<i>Xuanming Cao, Jiabin Cui, Xinyan Zhang, Yuefeng Ji, Guo-Wei Lu, Kunpeng Zhai, Sha Zhu, Ninghua Zhu Huashun Wen</i>	
Numerical Study of Photoacoustic Pressure with Light Scattering in Dense Colloidal Suspensions: Effects of the Optical Wavelength and Concentrations	1134
<i>H. Fujii, H. Nozaki, R. Sawada, S. Sasaki, H. Na, K. Kobayashi, M. Watanabe</i>	
Single-Layer Dual-Band Bandpass Filters with Large Frequency Ratio and High Design Flexibility	1138
<i>Y. F. Pan, X. Liao, H. H. Peng, Z. Zhang</i>	
Short-Term Frequency Stability of the Rubidium Atomic Fountain Clock NTSC-RbF2 at the NTSC	1144
<i>Yang Bai, Si-Chen Fan, Hui Zhang, Jun Ruan</i>	
Capacity-Driven Optimization of Non-Uniform Arrays via Neural Network-Assisted Parallel Tempering Algorithm	1149
<i>Yutong Jiang, Pengcheng Luo, Shuai S. A. Yuan, Wei E. I. Sha</i>	
DCO-OFDM-Based High-Speed Link for In-Vehicle Fiber Optic Networks	1155
<i>R. Arichi, Y. Yoshida, K. Akahane, A. Kanno</i>	
An Improved FinFET Model Characterizing the Cryogenic Effect	1158
<i>Shihan Xiang, Yunqiu Wu, Jun Liu, Huihua Liu, Chenxi Zhao, Yiming Yu, Kai Kang</i>	

An Array of Interstitial Applicators for Treating Deep-Seated Tumours	1163
<i>Michaela Nečasová, Jan Vrba, Filip Zajan, Kateřina Pavelková, Martin Nečas</i>	
Multi-Stage Reluctance Electromagnetic Accelerator Based on Traveling Magnetic Wave	1170
<i>Yiwen Li, Yongda Zeng, Yuanhao Liu, Yunjing Zhang, Peng Li</i>	
High-Sensitivity Wireless Antenna-Based Sensor for Liquid Sample Detection and Analysis	1174
<i>Zhichao Xu, Lei Wang, Peng Li, Meisong Tong, Yunjing Zhang</i>	
Capacitively-Coupled Resonators Enable Ultra-Sensitive Microwave Detection for Next-Generation Sensors	1180
<i>Yiming Xu, Zhichao Xu, Peng Li, Meisong Tong, Yunjing Zhang</i>	
Phase-Frequency Modulated Metasurfaces for Multi-Pulse Staring Imaging	1185
<i>Liyuan Lyu, Yu Hai, Junjie Wu, Wei Pu, Yulin Huang, Shaonan Chen</i>	
Hybrid Spatial Field Modulation with RIS-OAM Routing: A Non-Cooperative Dual-Link Wireless Covert Transmission Architecture	1191
<i>Yufei Zhao, Deyu Lin, Yujing Hong, Yongliang Guan, Chau Yuen</i>	
Study of Conversion Characteristics for Comb-Type Linear-to-Circular Polarization Converter Fabricated with Vat Photopolymerization 3D Printing	1201
<i>T. Kawakami, K. Asakawa, K. Sudo, K. Alfred, M. Suhara</i>	
Development of a 434 Mhz Regional Hyperthermia Applicator Using 8 Bow-Tie Antennas	1205
<i>Filip Zajan, Jan Vrba, Milan Babák, Michaela Nečasová, Kateřina Pavelková</i>	
Frequency Content of Charge Transfer in B-DNA, Including the Backbone, via a Four-Channel Tight Binding (TB) Model and TB Parameters Obtained by Density Functional Theory (DFT)	1211
<i>A. Kordas, A. Morphis, C. Simserides</i>	
A Study on Reconfigurable Conformal Metasurface Reflector with Flexible Printed Circuit	1219
<i>T. Urakami, K. Okada, T. Maruyama, A. Ono, N. Chen, M. Okada</i>	
Design of Broadband Microwave-Absorbing Metamaterial Structures Based on Superparamagnetism	1226
<i>Guijiang Liu, Xingbao Lyu, Chengxun Yuan, Anatoly Kudryavtsev, Zhongxiang Zhou</i>	
A Spherical Scanning System for Millimeter-Wave Antenna Measurement Using Flexible Waveguides and EO Probes	1236
<i>Shinya Ochi, Hokuto Isogai, Wataru Kumazawa, Yusuke Tanaka, Shintaro Hisatake</i>	
A Method for Improving Polarization Extinction Ratio in Electro-Optic Visualization Using DAST Crystal	1240
<i>Hokuto Isogai, Shinya Ochi, Shintaro Hisatake</i>	
Detection of Surface and Subsurface Plastic Using UAV and GPR Imagery with YOLO	1243
<i>Taito Kato, Yuuri Mikuni, Jun Sonoda</i>	
High-Resolution Sampling of UWB Radar Echoes Using Waveform Crossing and TDC Techniques	1251
<i>R. Barkans, S. Migla, N. Tihomorskis, J. Ratners, V. Kurtenoks, A. Aboltins</i>	
An Electromagnetic Study of Grounded Isolation Trenches at Critical Positions in GaN-on-Si Technology for Integrated Power Electronics	1256
<i>Rui Yao, Zijin Jiang, Miao Cui, Zhao Wang, Sang Lam, Stephen Taylor</i>	

Demonstration of End-to-End Automation and Heterogeneous All-Photonics Network Integration	1264
<i>Ryotaka Miyamoto, Shinya Nakamura, Yusuke Hirota, Kenichi Baba, Hirofumi Yamaji, Satoshi Yamanoi Sota Yoshida, Yoshihiro Nakahira, Satoru Okamoto, Shinichi Akahane, Kenichi Goto, Tomoaki Terasaki</i>	
Stochastic Modeling of Ionosphere Modification	1274
<i>N. E. Aktaev, Zhijian Lu, A. A. Kudryavtsev, Hui Li, Zhongxiang Zhou, Chengxun Yuan</i>	
Kramers Rate for Description of Electrons Moving in Ionosphere Cavity	1278
<i>N. E. Aktaev, Zhijian Lu, A. A. Kudryavtsev, Hui Li, Zhongxiang Zhou, Chengxun Yuan</i>	
Quantum Dots on Optical Nanofiber Tips: A Hybrid Platform for Quantum Photonics	1283
<i>Resmi M, Ramachandrarao Yalla</i>	
Revealing Dual Axion Responses in Metamaterials with Localized Sources	1292
<i>E. Barredo-Alamilla, D. A. Bobylev, T. Z. Seidov, M. Mazanov, L. Shaposhnikov, M. A. Gorlach</i>	
Experimental Demonstration of Eigenvalue Conversion by Using Delayed Superposition and Time Gating	1296
<i>T. Inomoto, K. Nakagawa, T. Morishige, K. Mishina, A. Maruta</i>	
Research on Radar Cross Section Prediction of Honeycomb Coated Targets Using Neural Networks	1302
<i>Fan Zhang, Jiang Liu, Xin Chen, Haina Song, Juan Wang, Minghu Wu, Yunhua Zhang</i>	
Modulation of Fabry-Perot Bound States in the Continuum Properties via Symmetry Breaking in Dielectric Photonic Structures	1309
<i>K. V. Semushev, Zilong Zhao, A. A. Bogdanov, M. V. Rybin, E. E. Maslova</i>	
Application of Closed Elliptical Electrode Topologies for Inertial Sensors on Surface Acoustic Waves	1312
<i>A. Kukaev, M. Sorvina</i>	
Sensor Deployment in mm-Wave Near-Field Monostatic and MIMO Radar Imaging	1319
<i>Mario Del Prete, Maria Antonia Maisto, Antonio Cuccaro, Raffaele Solimene</i>	
Efficient Near-Field Data Reduction by a Symmetry Constrained Warping Based Greedy Algorithm	1325
<i>Mario Del Prete, Maria Antonia Maisto, Antonio Ciociola, Antonio Cuccaro, Raffaele Solimene</i>	
Design and Implementation of a Semi-Physical Simulation Experimental System for Train Braking Performance Based on STM32	1330
<i>Shi Long An, Yu Xi Ren, Jun Jie Yuan, Ya Ming Xie</i>	
Correlation Between Atmospheric Electric Field and Weather Observed via All-Sky Camera	1335
<i>M. Hongo, Y. Hobara, T. Tsuda, H. Kikuchi</i>	
Geometric Accuracy Using DEM Shaded Relief Images for Landsat-8/OLI and Landsat-9/OLI-2 L1TP Images	1339
<i>Hiroyuki Saito</i>	
An Efficient Optimization Method for Optical Spectrometer Design Based on Deep Learning	1343
<i>Zheng Ang Li, Jun Jie Yuan, Ya Ming Xie</i>	
A DOA Estimation Algorithm for RIS Phase Mismatch	1347
<i>Canping Yu, Yingsong Li, Liping Li</i>	

All-Optical Nonlinear Activations Using Saturable Absorbers on a Generic InP Platform for Photonic Neural Networks	1354
<i>Rajib Ratan Ghosh, Lukas Puts, Julian Konig, Weiming Yao</i>	
A Compact Dual-Band Rectifier Using Novel Impedance Compression Technology for Wireless Power Transfer	1361
<i>Zijian Cao, Guyu Han, Zijun Wang, Ruoxi Qian, Qinghua Wang, Yingsong Li</i>	
AI-Driven Electromagnetic Prediction with Pixelated Matching Networks for Broadband and Miniaturized Rectifier Design	1365
<i>Hao Zhang, Zhiwei Liang, Haodong Li, Tao Zhang</i>	
Dual-Band, Dual-Output Power Amplifier with Integrated Harmonic Control Based on Dual Transmission Lines	1373
<i>Yang Li, Kaixian Ouyang, Rui Chu, Yongbing Hu, Qinghua Wang, Taotao Xu</i>	
A Compact Dual-Band Dual-Polarization and High-Gain Antenna for Simultaneous Wireless Information and Power Transfer (SWIPT)	1379
<i>Qifeng Huang, Chaoran Huang, Junjie Wang, Qinghua Wang, Taotao Xu, Yingsong Li</i>	
SpatioGate-CNN: B-Scan Image Reconstruction from Sparse A-Scan Echoes in GPR	1383
<i>Jian Chen, Yinan Wang, Hongxia Ye</i>	
Mid-Infrared Polariton Canalization in Van Der Waals Quaternary Oxides via Synthetic Transverse Optical Resonances	1389
<i>Y. Z. Wu, C. C. Huang</i>	
Symmetry-Protected Bound States in the Continuum in $\text{Ge}_{1-x}\text{Sb}_x\text{Te}_{1-x-y}\text{Se}_y$ Strips	1392
<i>N. A. Vlasov, A. I. Solomonov, Z. F. Kondratenko, M. V. Rybin, E. E. Maslova</i>	
Toward Low-Latency Services Over PON Using OCDMA Private Networks	1396
<i>S. J. Cordette</i>	
Vertical Resolution in Subsurface SAR Tomography	1399
<i>J. A. Góes, G. C. Oré Huacles, K. A. Lukin, L. Sant'Anna Bins, H. E. Hernandez-Figueroa</i>	
Integrated Microwave Heater and Sensor for Enhanced Sensitivity and Efficiency	1406
<i>Y. Zheng, G. A. E. Vandenbosch, B. Nauwelaers, T. Markovic</i>	
Scanning Radar Angular Super-Resolution Via Joint Tv-Wavelet Priors and Split Bregman Iteration	1411
<i>Jiawei Luo, Yin Zhang, Jianyu Yang, Yulin Huang</i>	
Fast Two-Dimensional Admm-Clean Method for Sar Target Scattering Center Extraction	1418
<i>Yanjing Ma, Jifang Pei, Weibo Huo, Yin Zhang, Yulin Huang, Jianyu Yang</i>	
Electromagnetic Investigation of Vertical Coupling Between Si_3N_4 Planar Waveguides and Microring Resonators for 3D Photonic Integrated Circuits	1425
<i>Wenli Zhou, Sang Lam</i>	
A Millimeter-wave Dual-polarized Patch Antenna with Low Cross-polarization for 5G Applications	1432
<i>Keshuang Feng, Xin Xu, Wei Hong</i>	

Accuracy of Enhanced Holographic Mode Decomposition Methods for Analyzing a Beam Modal Content	1436
<i>M. D. Gervaziev, A. A. Revyakin, D. S. Kharenko, S. A. Babin</i>	
Electromagnetic Fields of Transport Sources of Radiation at Different Speeds of Movement	1441
<i>L. Alexeyeva, I. Kanymgazyeva</i>	
Mechanically Tunable Wire Medium with a Honeycomb Lattice	1445
<i>D. Sakhno, J. A. Enriquez, P. A. Belov</i>	
Pulse-Synchronized Microwave Cavity Resonance Spectroscopy for DBD Plasma Jet Diagnostics	1450
<i>Ch. Yuan, A. M. Astafiev, A. A. Kudryavtsev</i>	
Recent Advances in Distributed Optical Sensing Technologies Based on Rayleigh, Brillouin and Raman Scattering	1456
<i>Ugis Senkans, Nauris Silkans, Sandis Spolitis, Janis Braunfelds</i>	
Smart Road Infrastructure Enabled by Embedded FBG Sensor Network for Real-Time Structural Monitoring	1465
<i>Ugis Senkans, Nauris Silkans, Remo Merijs-Meri, Peteris Skels, Arun Kumar Chethakudam Shaji Sandis Spolitis, Viktors Haritonovs, Janis Braunfelds</i>	
Multi-Order Diffraction Optical Element Matched with Optical Modes to Detect Wavefront Aberrations	1474
<i>P. A. Khorin, A. V. Chernykh</i>	
Simulation of the Wavefront Aberrations Influence at Sharp Focusing	1482
<i>P. A. Khorin, N. A. Ivliev, S. N. Khonina</i>	
Radio Wave Back-Propagation Over Rough Sea Surface	1490
<i>K. S. Kharlamp'ev, K. S. Sychev, I. A. Gromov, A. A. Ershova, M. S. Mikhailov, A. M. Mikhailov</i>	
Traveling Wave Parametric Amplifiers on Strontium Titanate	1496
<i>Connor Denney, Chandler Wilburn, Gabriel Santamaria-Botello</i>	
Mitigating Cladding-Induced Ripples in D-Band Polymer Microwave Fibers for Enhanced 6G Performance	1503
<i>Maria Jozwicka, Gilles Callebaut, Manuel Buehler, Martin Wagner, Ulf Huegel, Liesbet Van Der Perre</i>	
A Statistically-Bounded Machine Learning Framework for Robust Full-Wave Electromagnetic Inversion	1509
<i>Shuwen Yang, Siyi Huang, Hao Qin, Xingqi Zhang, Xinyue Zhang</i>	
Cross-Modality AI for Emergency Trauma Assessment: A Conceptual Framework for Inferring CT-Based Diagnostics from Radar Sensing	1516
<i>Reem Kassem, David Liang, Omar Elkalesh, Amro Nour</i>	
Efficient Radio Wave Propagation Prediction Using Dynamic GAN-Based Model with Data Augmentation	1524
<i>Haochang Wu, Hao Qin, Siyi Huang, Siteng Ma, Xingqi Zhang, Xinyue Zhang</i>	
Modeling Radio Wave Propagation Over Irregular Terrain via the Split-Step Parabolic Equation Approach	1529
<i>Hao Qin, Yunxi Mu, Siyi Huang, Xingqi Zhang, Xinyue Zhang</i>	

An Holographic Approach in Multi-Layered Material Diagnostics	1536
<i>Mario Del Prete, Maria Antonia Maisto, Loreto Di Donato, Raffaele Solimene</i>	
One-Dimensional (1D) Inverse Profiling for Plasma Diagnostics	1540
<i>Roberto Dima, Shaimaa E. Elghetany, Loreto Di donato, Raffaele Solimene, Maria Antonia Maisto</i>	
Liquid-index Sensor Based on a Tapered-fiber Bragg Grating	1547
<i>Shian-Ming Liu, Cheng-En Tsai, Wen-Fung Liu</i>	
A PCIe-based Optical SSD and Its Potential for Future Disaggregated Networks	1550
<i>Ryuichi Fujimoto, Kuniaki Ito, Yosuke Yamahara, Youichirou Shiba, Koji Sano, Takaya Yamamoto Kazukuni Kitagaki, Shinya Kawakami, Yuma Nomura, Ryo Sekiguchi, Yohei Hasegawa, Isao Yamamoto Masafumi Takahashi</i>	
Electromagnetic Channel Effective Rank Characterization for MIMO Systems in Disordered Scattering Spaces Based on T-Matrix	1554
<i>Jiahui Wang, Da Li, Jinyan Ma, Ruifeng Li, Erping Li</i>	
Length-Dependent Performance Characteristics: Hybrid Raman-Edfa Configurations for Optical Networks	1560
<i>Charithra Dias, Toms Salgals, Jurgis Porins</i>	
Deep Learning-Designed Coding Pattern Units Enabling Ultrathin Chessboard Metasurfaces for Effective Multiband RCS Reduction	1567
<i>Tian Yu, Xiaoling Xiao, Yulin Zeng, Zijing Zhou, Xilong Li, Zhengyu Zhang, Jun Li, Zhongxiang Zhou</i>	
Simplified Design Method of Generalized Sequential Rotation Array Based on Rotation-Independent Element	1575
<i>Xin Yu Wu, Zhi Hao Jiang</i>	
Robust Matching of Sar Image and Optical Image Based on Improved Superpoint and Superglue	1582
<i>L. L. Zhang, T. H. Zhang, H. Q. He, S. X. Dong, Z. W. Zhou</i>	
High Resolution Imaging for Multi-Baseline Distributed SAR	1590
<i>G. T. Xu, T. H. Zhang, Y. C. Li, S. X. Dong, H. Q. He, Z. W. Zhou</i>	
Physics-Inspired Quantitative Computational Imaging Utilizing Sensors with Constrained Apertures	1598
<i>Yuxin Zhang, Kuiwen Xu, Rencheng Song</i>	
A Novel Multimodal Sensing Method for Force Analysis of Human Joints Based on Mechanoluminescent Optical Fiber	1603
<i>Zhi Chong Wan, Guo Chun Wan, Mei Song Tong</i>	
An Innovative Neural Network Technique for MIMO Systems: Iterative Decoding and Channel Estimation for Optimal Performance	1607
<i>Muhammad Arslan, Mei Song Tong</i>	
A Monte Carlo-Based Comparative Study on Different Detection and Decoding Procedures for Performance Optimization of MIMO Systems	1615
<i>Muhammad Arslan, Wen Ke Li, Mei Song Tong</i>	
Performance-Centric Analysis and Optimization for Intelligent Reflecting Surface Based MIMO Systems	1621
<i>Muhammad Arslan, Mei Song Tong</i>	

A Novel Wearable Antenna Based on EPDM Substrate for Health Monitoring Systems	1627
<i>Jehangir Khan, Yi Bin Wang, Mei Song Tong</i>	
A Novel Hardware Design for Projection Display Drive System Based on Digital Light Processing	1632
<i>Yi Bin Wang, Mei Song Tong</i>	
A Microstrip Resonant Strain Sensor With Flexible Coding Reconfigurability for Structural Health Monitoring	1638
<i>Ya Ming Xie, Zhi Chong Wan, Guo Chun Wan, Mei Song Tong</i>	
Advancing Global VHF Propagation Analysis — Understanding the E-Layer's Influence on APRS of ISS & PARUS/LEO Satellites	1645
<i>Randson Huang, Hower Huang, Yang-Lang Chang</i>	
Shorting Pin-Based Isolation Improvement in a Modified Dual-Port MIMO Antenna for WLAN and 5G Applications	1650
<i>Shakeel Ahmad, Akhtar Khan, Sohail Khan, Mei Song Tong</i>	
A Compact Multi-Folded Meandered Antenna for 5G mmWave Systems	1656
<i>Akhtar Khan, Shakeel Ahmad, Mei Song Tong</i>	
A Frequency Selective Surface Based on Concentric Ring and Cross Slot for Wideband Angular-stable Ka-band Rejection	1661
<i>Akhtar Khan, Shakeel Ahmad, Mei Song Tong</i>	
A Novel Ice Sensor Based on Coplanar Waveguide with Defect Ground Structure	1666
<i>Xiao Shuai Li, Ya Ming Xie, Mei Song Tong</i>	
3D Terrain Modeling and MIMO-SAR Imaging Simulation for Electromagnetic Scattering in Cluttered Environments	1670
<i>X. Wu</i>	
A Novel Attention-Enhanced Spectrum Sensing Method for Cognitive Radio Systems	1676
<i>Jia Le Ding, Zhi Chong Wan, Guo Chun Wan, Mei Song Tong</i>	
Ultra-Broadband On-Chip Wavelength Division Multiplexer for Erbium-Doped Thin-Film Lithium Niobate Waveguide Amplifiers via High-Order Mode Pumping	1681
<i>Baobao Chen, Peiqi Zhou, Yanxia Ye, Daigao Chen, Min Tan, Xi Xiao</i>	
A Novel Gain-Enhanced Miniaturized UWB Vivaldi Nonuniform Slot Antenna	1684
<i>Quancheng Yu, Zuxue Xia, Jiayuan Hu, Haowen Zheng, Xiang Wang</i>	
A Classification of Flowing White Blood Cells Based on Simplified Optical Flow System and Machine Learning Algorithms	1691
<i>Anna Go, Min-Ho Lee</i>	
Analysis of Frequency Arrangement for the 600MHz Band	1695
<i>Guntis Ancāns, Vjačslavs Bobrovs</i>	
Photoacoustic Spectroscopy-based Intelligent System for SF ₆ Leakage Detection in Large Scale GIS Devices	1698
<i>Rubao Wang, Chen Xu</i>	
Design and Implementation of a Multi-Precision Processing Element	1706
<i>Jie Han, Ling Chen Xu, Ya Ming Xie</i>	

Low-Latency Defogging Algorithm for Camera Monitor Systems Implemented on ZYNQ	1711
<i>Ling Chen Xu, Jie Han, Ya Ming Xie</i>	
Preparation and Performance of Green Electromagnetic Shielding Materials	1718
<i>Siyu Fang, Zhe Liu, Yudong Shang</i>	
Enhancing Electromagnetic Performance of Garment Fabrics with Carbon Nanotubes	1724
<i>Zhe Liu, Siyu Fang, Pengcheng Liu</i>	
A Novel Dual-Port UWB MIMO Antenna with Dual-Notch Characteristics	1730
<i>Quancheng Yu, Zuxue Xia, Xin Cao, Haowen Zheng, Zhanpeng Lin</i>	
Combination Design and Shielding Effectiveness of Different Types Multilayer Electromagnetic Shielding Fabric	1734
<i>Xing Rong, Xiuchen Wang, Ying Li, Zhe Liu</i>	
Research on Shielding Effectiveness of Same-Type Multilayer Electromagnetic Shielding Fabric	1740
<i>Xiuchen Wang, Ying Li, Junchang Zuo, Zhe Liu, Xing Rong</i>	
An Adaptive Reverse Bias Voltage Readout Circuit for Single-Photon Avalanche Diodes Arrays	1746
<i>Yuxuan Fan, Ziqiang Peng, Cong Wei, Rongshan Wei</i>	
Infrared Stealth, Flame Retardancy and Thermal Energy Harvesting Design and Properties of Janus Alk-MXene PVDF@GO-PVDF Composites	1752
<i>Xiuchen Wang, Wei Meng, Zhe Liu, Jin Duan</i>	
Alk-MXene PVA@Alk-PVA@PVDF Hierarchical Core-Sheath Fiber Sensor Design with Electromagnetic Shielding and Flame Retardancy	1760
<i>Jin Duan, Zhe Liu, Xiuchen Wang</i>	
A Generalized Deep Learning Approach for Monitoring Oceanic Eddies in Multi-Source SAR Images	1768
<i>Shuai Song, Guihong Liu, Yaming Zhao, Yang Yu, Xiaofeng Yang</i>	
An Implementation-Friendly Non-Conformal Mesh-Based SIE Solver for RL Parameters Extraction	1772
<i>Mingyu Wang, Wenliang Dai, Ping Liu, Qinqin Jiang</i>	
An Efficient Solution Method for the Angular Glint Characteristics of Multiple Objects Based on the TCM and MLFMA	1776
<i>Zhaoyuan Wang, Jihong Gu, Jiaxuan Wang, Dazhi Ding, Chao-Fu Wang</i>	
An Efficient Scheme of Parallel Mesh Refinement with Distributed Octree Construction on the Tianhe Supercomputing Platform	1781
<i>Xiaoyu Zhang, Jihong Gu, Zhaoyuan Wang, Mengmeng Li, Dazhi Ding</i>	
A 12-Element MIMO Antenna with Shared-Radiator Pairs for 5G Smartphone Applications	1785
<i>Shunqi Liu, Zhonggen Wang, Zhenzhen Chen</i>	
Optical Behavior of Milled TiN Nanoparticles: Effect of Size, Oxidation and Nanogap Absorption	1790
<i>Masanori Sakamoto, Hideyuki Hirazawa, Masami Nishikawa, Aki Fujita</i>	
High-Performance Tri-Band Filtering Power Divider Based on Stub-Loaded Resonators	1794
<i>Zhanpeng Lin, Zuxue Xia, Xin Cao, Quancheng Yu, Mingjie Liu</i>	

A Microstrip Tri-Band Bandpass Filter Based on Cross Resonators and Pseudo-Interdigital Structure Resonators	1800
<i>Zhanpeng Lin, Zuxue Xia, Ji Li, Xiang Wang, Mingjie Liu</i>	
A Filtering Balun Based on SISL and Microstrip-Slotline Structure	1806
<i>Xiang Wang, Zuxue Xia, Xin Cao, Hangjiang Xiao, Jie Zheng</i>	
Broadband Microstrip Patch Array Antenna	1812
<i>Hangjiang Xiao, Zuxue Xia, Xin Cao, Xiang Wang, Mingjie Liu</i>	
Investigation of Quantum Algorithms for the Solution of EFIE-Based Matrix Equation System for 3D PEC Scatterers	1816
<i>Rui Chen, Teng-Yang Ma, Meng-Han Dou, Chao-Fu Wang</i>	
Dynamically Tunable Nonreciprocal Radiation in Hybrid Metastructures	1820
<i>Ye Ming Qing, Jiale Gao, Zhuofan Jiang</i>	
III-V on Si Waveguide Bonding Light Coupling Structure with Alignment Tolerance Exceeding 3- μm	1824
<i>Hideaki Okayama, Hiroyuki Takahashi, Hideki Ono, Daisuke Shimura, Kenichi Tanigawa, Takahito Suzuki Hironori Furuta, Nobuhiko Nishiyama</i>	
Out-of-Phase Compact Filtering Power Based on Shielded Quarter-Mode Circular SIW Resonator Cavity	1832
<i>Mingjie Liu, Zuxue Xia, Zhanpeng Lin, Quancheng Yu, Haowen Zheng</i>	
Design of Imitation Nuclear Signal Acquisition System Based on Qt and FPGA	1837
<i>Haowen Zheng, Zuxue Xia, Xin Cao, Quancheng Yu, Mingjie Liu</i>	
Task Scheduling for Parallel Data-Processing Pipelines on the Real-Time Computing Infrastructure	1843
<i>T. Furuya, S. Morita, K. U, Y. Goto, J. Kato, A. Kanamaru</i>	
Structured Wavefront Multiplexing for Next-Generation Backhaul Over Long-Distance	1853
<i>Yufei Zhao, Afkar Mohamed Ismail, Yirui Luo, Zekai Wang, Yong Liang Guan</i>	
Mercury Light Source Optimization for Zeeman Atomic Absorption Spectroscopy	1860
<i>A. Abola, G. Revalde, A. Skudra, N. Zorina, R. Veilande</i>	
Demonstration of a Stand-Off Trace Gas Sensor with Optical Detection of Photothermal Effect During Infrared Laser Absorption	1866
<i>Shigeru Yamaguchi, Yuki Kawamoto, Masaki Asobe, Kazuyoku Tei</i>	
Frequency Selective Surface with Angular, Energy, and Polarization Selectivity	1873
<i>Chengjing Gao, Xiaojun Hu, Dexin Ye</i>	
On the Electrically Small Patch Antennas: Recent Progress and Prospect	1882
<i>Ling-Peng Zeng, Xiao-Hui Mao, Fei-Yan Ji, Wen-Jun Lu</i>	
Energy Losses in All-Perovskite Tandem Solar Cells Based on Opto-Electro-Thermal Multiphysics Field Simulation	1886
<i>Zhaosheng Xia, Xingang Ren, Gang Wang, Yongchun Miao, Zhixiang Huang</i>	
A Novel Approach for DoA Estimation of Coherent Sources with Leaky-Wave Antennas	1892
<i>R. Maydani, J. Sarrazin, Y. Wang</i>	

Improved Backward Ray-Tracing SBR Method Based on Bounding Spheres BVH and Beam Tracing	1898
<i>Yun-Chuan Wang, Sen Liu, Ji-Yuan Wang, Xiao-Min Pan</i>	
DuViT-UNet: Dual-Path Vision Transformer U-Net for Joint Total-Field and Back-Projection Learning in Electromagnetic Inverse Scattering	1903
<i>Yikai Luo, Yajie Pi, Lizhen Yang, Yuxuan Li, Peng Zhang, Zhenhao Peng, Meng Geng, Yubo Tao, Hai Lin</i>	
Novel Evanescent Wave Interference Suppression by Anisotropic Metasurface in Electrically Small Cavity Circuit	1909
<i>Da Yi, Wei Zhou, Jia-Qi He, Shi-Yu Wang, Gao-Qi Dou, Hua-Peng Zhao, Ming-Chun Tang</i>	
Research on Electromagnetic Interference During IGBT Module Opening and Closing Process	1917
<i>Yang-Dong Xu, Shi-Lie He, Qiang-Ming Cai, Junliang Wan, Xin Cao, Longjian Zhou, Haoran Li Zhen-Yong Du, Yixiang Li, Yuyu Zhu, Bo Pu, Jun Fan</i>	
Investigation of QPSK Receiver Performance Under High-Power LFM Radar Interference	1923
<i>Jiawei Huang, Chunguang Ma, Mingwen Zhang, Yong Luo</i>	
Unified Machine-Learning Framework for Automated Inverse Design of Metasurfaces	1928
<i>Zhao Zhou, Wei Lin</i>	
Analysis of Asymmetric Scattering Distribution Under 45-Degree Polarized Incidence for Terahertz Waves	1932
<i>R. Yoshino, S. Saito, R. Nishidono, Y. Anma, K. Inagaki, T. Kawanishi</i>	
Design of a High-Transmittance Dual-Beam Vortex Wave Metasurface Based on Glass Substrate-ITO Film	1935
<i>Yong Cai, Zhaosheng Xia, Yuying Dai, Xingang Ren, Gang Wang, Yongchun Miao</i>	
Wide Temperature-Range Calibration of Polarization-Based Fiber Optic Current Sensor Based on GRNN	1941
<i>Biao Xu, Xianghan Meng, Yong Tu, Wenjia Chen, Ciming Zhou</i>	
High-Precision Optical Fiber Current Sensing Method Based on Online High-Speed Polarization Switch Module	1947
<i>Xianghan Meng, Biao Xu, Yong Tu, Zhen Pan, Ciming Zhou</i>	
A Millimeter-Wave Integrated Antenna Design for Metal-Frame Handset	1954
<i>Zihang Qiu, Rui Huang, Xin Dai</i>	
Efficient Broadband Non-Line-of-Sight Imaging Via All-Forward Optical Neural Networks	1958
<i>He Zhou, Junhe Zhou</i>	
Enhanced Axial Resolution in Interferometric Microscopy Assisted by Near-Field Reflection Planes	1964
<i>Aiqin Zhang, Kunyang Li, Jianying Zhou</i>	
Impact of HPM Pulse Edge Time Variations on LNA Burnout Threshold	1969
<i>Chunguang Ma, Mingwen Zhang, Ruilong Song, Jiawei Huang, Jianxun Wang</i>	
A Phase-Based Method for I/Q Imbalance and Dc Offset Calibration of Radar Sensors in Blade Tip Clearance Measurement	1972
<i>Yujia Zhang, Yajie Guan, Ye Tian, Shuming Wu, Zhibo Yang, Long Su, Shujing Lin, Feng Tian</i>	

Time-Frequency Characteristic Analysis of Near-Field Rotating Blade Echoes Based on Attribute Scattering Centers	1983
<i>Yajie Guan, Ye Tian, Yujia Zhang, Shuming Wu, Zhibo Yang, Yijing Liu, Liuyang Zhang, Lijiao Yang</i>	
Probing the Broken Time Reversal Symmetry in Monolayers Using the Z-Scan Technique	1992
<i>Husam H. Abu-Safe, Suhad Sbeih, Maysoon Saleh, Marah Al-Nsour, Qutadah Almassoud, Morgan E. Ware Nabil Ayoub</i>	
Time-Optimal Quantum State Transfer in Long Qubit Chains	1999
<i>K. S. Chernova, A. A. Stepanenko, M. A. Gorlach</i>	
Single-Particle Analysis of Photocatalytic Performance on Graphitic Carbon Nitride by in-Situ Observation	2003
<i>Masanori Sakamoto, Yugo Imai, Ken-Ihi Saitow, Hideyuki Hirazawa, Masami Nishikawa</i>	
A Study on 3D Beam Steering Using Reconfigurable Convex-Type Multi-Beam Metasurface Reflector	2008
<i>A. Ono, A. Satou, T. Urakami, T. Maruyama, N. Chen, M. Okada</i>	
Efficient Modeling and Analysis for Interactions of High-Power Electromagnetic Impulses with Human Bodies	2016
<i>Li Zhang, Yi Wen Li, Yun Jing Zhang, Mei Song Tong</i>	
Microwave-Band Oscillator Based on Thin-Film Bulk Acoustic Resonator with Wide Frequency Tunability for Atomic Clock Applications	2022
<i>Masahiro Fukuoka, Kazutoshi Nishio, Motoaki Hara, Hiroyuki Ito</i>	
Typical Applications of Tiangong-2 Interferometric Imaging Radar Altimeter Data	2026
<i>Yunhua Zhang, Xiao Dong, Guo Li, Xiaojin Shi, Wenshuai Zhai, Xueyan Kang, Jiefang Yang, Dong Li Bowen Xue</i>	
Marine Gravity Anomaly Recovery Using the SSH Data of Tiangong-2 InIRA and SWOT KaRIn	2033
<i>Bowen Xue, Yunhua Zhang, Xiao Dong, Wenshuai Zhai</i>	
Flexible Electromagnetic Absorption/Reflector Design With Adjustable Bandwidth	2041
<i>Aomei Zhang, Yi Wang, Qunsheng Cao</i>	
Long-Wavelength Cutoff Characteristics in Deep Ultraviolet Region of AlGaIn-based LED with Lossy/Transparent Bilayer Subwavelength Grating	2048
<i>Y. Okano, Y. Takashima, M. Haraguchi, Y. Naoi</i>	
A Novel Broadband Non-Contact Feed Antenna for Terahertz Coplanar Waveguides	2052
<i>Hexiang Song, Muzhi Gao, Bin Wang, Gaoyang Zhu, Lanchang Xing, Xiaowang Gao, Yanlin Lv</i>	
Study on Vehicle Tracking by Using Fractal Image Analysis with Updating Reference Image	2058
<i>Yifan Wu, Jinbo Xuan, Syota Yazawa, Akira Uchida, Takashi Kuroiwa</i>	
Evaluation of Spectrum Sharing Between SWIPT System Using M -Ary PSK Modulated Chirp Signal and 2.4-GHz Band Wireless LAN	2063
<i>M. Nakatsugawa, T. Iso, H. Uehara, N. Suematsu</i>	
Comparative Evaluation on Radiation Performance of Linear Array Antenna Based on Weighting Functions	2068
<i>Hartuti Mistialustina, Kusmadi, Ketut Abimanyu Munastha, Mohd Aminudin Jamlos, Achmad Munir</i>	

Bistatic Radar Cross Section-Based Evaluation of Simplified Car Models for Integrated Sensing and Communication Systems	2074
<i>S. J. Karthik, N. Keerativoranan, A. Ziganshin, C. Schneider, J. Takada</i>	
The Concept for Evaluation of Mobile Internet QoS by Means of Big Data Analysis	2080
<i>Inga Vagale, Elmars Lipenbergs, Vjaceslavs Bobrovs, Edgars Kazoks, Guntis Ancans</i>	
A Through-Wall Radar Moving Target Tracking Method Based on Multi-Hypothesis Probability-Weighted Fusion	2087
<i>Guangzhong Zhang, Naïke Du, Yuchao Guo, Xiuzhu Ye</i>	
Far-UVC LED Modules Driving Environmental Photonic Services for HAIs Reduction	2094
<i>P. Fredes, M. Ajmal Khan, U. Raff, E. Gramsch, J. Gonzales, C. Rios, M. Herrera, I. Balarezo, H. Hirayama</i>	
Maximum Depth in Subsurface SAR Tomography with Spiral Flight Paths	2102
<i>J. A. Góes, H. S. Rocha, J. R. Moreira, H. E. Hernandez-Figueroa</i>	
Design and Analysis of a Dual π -Mode W-Band Extended Interaction Oscillator with High Efficiency and Enhanced Bandwidth	2110
<i>Tianyi Xu, Cunjun Ruan</i>	
Electromagnetic-Thermal Coupling Simulation of a Water-Based Absorber Using Nonuniform Hie/Adi FDTD Method	2116
<i>Yanshun Xiong, Yi Wang, Qi Wang</i>	
Sensitivity Enhancement in Millimeter and Terahertz-Wave Imaging Based on Cascade Lock-in Detection	2123
<i>Kota Nishimura, Yusuke Tanaka, Hokuto Isogai, Shinya Ochi, Takeshi Sugiyama, Shintaro Hisatake</i>	
Micromagnetic Characterization of Spot Welds: Optimizing Calibration for Steel Plates of Varying Thickness	2131
<i>S. Shahabuddin, K. Kamitani, Y. Gabi, C. Conrad, T. Kitamura</i>	
Colorimetric Refractive Index Sensor Using Polarization Dependence of Optical Resonances in Modulated Cr Subwavelength Grating/ SiO ₂ /Ni Structure	2139
<i>H. Miyatake, Y. Takashima, M. Haraguchi, Y. Naoi</i>	
Drone-Based Evaluation of Low-Level Water Vapor Observations Using Digital Terrestrial Broadcasting Waves	2144
<i>S. Shimizu, H. Hanado, T. Watanabe, N. Kitai, S. Kawamura, T. Maesaka</i>	
A Thin Polarization Insensitive Frequency Selective Surface for X-Band RCS Reduction	2152
<i>Ming Dong, Daria Kulikova, Papa Ousmane Leye, Islem Yahi, Chaouki Kasmi, Felix Vega</i>	
C-Band One-Port Ring Resonator Design for Ethanol and Methanol Sensing Applications	2155
<i>Atalay Kocakusak</i>	
Sidelobe Level Reduction: Power Weighting Techniques in Antenna Feed Networks	2159
<i>Yohandri, F. A. Haqqi, F. Andriani</i>	
Design and Performance Analysis of a Fiber-Based Ring Resonator for Telecommunication Applications	2162
<i>Dilan Ortiz, Janis Alnis, Janis Braunfelds, Ints Murans, Ricards Kudojars, Vjaceslavs Bobrovs, Toms Salgals</i>	

Model Based Reconstruction of Lung Conductivity Using Electrical Impedance Tomography	2169
<i>Yimeng Xu, Ke Zhang, Maokun Li, Fan Yang, Shenheng Xu</i>	
Feeding Technique Configuration for Enhancing Radiation Performance of Planar Array Microstrip Antenna	2179
<i>Mohammad Ridwan Effendi, Muhammad Farhan Maulana, Hartuti Mistialustina, Achmad Munir</i>	
Inverse Design of Metasurfaces Using Reinforcement Learning Combined with Physics-Informed Neural Networks	2184
<i>Vlad Medvedev, Rodrigo Coelho, Andreas Erdmann, Andreas Rosskopf</i>	
Method of Moments Analysis of Wireless Power Transfer from Air to Underwater via Magnetic Coupling	2194
<i>T. Maruyama, A. Kamada, M. Nakatsugawa, M. Tamura, I. Awai, N. Suematsu</i>	
Metamaterials for Frequency Absorption and Frequency Suppression	2198
<i>Arun Kumar Saha</i>	
In-Situ Classification of Martian Soil in Gale Crater for Agricultural Feasibility with CRISM-based Remote Validation	2204
<i>Joshua Hernández-Ramírez, Yael E. Castrejón-Ocampo, Edgar Solano Castrejon</i>	
Characterization of a Frequency Reconfigurable Rectangular-Ring Microstrip Antenna Using Single Switch	2213
<i>Bambang Setia Nugroho, Budi Syihabuddin, Trasma Yunita</i>	
Causal-Driven Antenna Design for Enhanced Microwave Stroke Imaging: A Pathway to Improved Diagnostic Accuracy	2217
<i>Hui Zhang, Yifan Chen, Wen'an Wang, Zheng Gong, Yahui Ding, Qiuzhen Wang</i>	
Generation of a High-Power MM-Radiation with a Kiloampere Sheet Relativistic Electron Beam in a Planar Cherenkov Maser	2227
<i>S. L. Sinitsky, E. S. Sandalov, P. V. Kalinin, A. V. Arzhannikov, S. A. Kuznetsov, N. Yu. Peskov D. A. Samtsov, V. D. Stepanov, V. Yu. Zaslavsky</i>	
Optimizing a Fully-Packaged SOI-Based Sensor: Microfluidic Flow and Antibody Immobilization Approaches	2238
<i>F. Bontempi, V. Toccafondo, A. G. Luminare, F. Gambineri, P. Velha</i>	
A Novel Broadband Dielectric Measurement Technique for Natural Gas Hydrates	2244
<i>Gaoyang Zhu, Xinhua Sun, Xiaowang Gao, Muzhi Gao, Bin Wang, Lanchang Xing, Yunjun Zhang Junlin Feng</i>	
Physics-Informed Neural Networks for Solving VLF Scattering of Receiving Antennas in the Anisotropic Ionosphere	2252
<i>Zhu Hong Lin</i>	
A Signed Recursive Approximate Multiplier for Energy-Efficient Edge Computing	2257
<i>Wen Ke Li, Xiao Ling Jia, Mei Song Tong</i>	
A Compact MIMO Antenna with Enhanced Isolation and Efficiency for Sub-6 GHz 5G Applications	2263
<i>Shakeel Ahmad, Akhtar Khan, Sohail Khan, Mei Song Tong</i>	

NLOS Cross-Region Target Localization Using Weighted Dictionary-Based Compressive Sensing	2268
<i>Zihan Xu, Chen Qiu, Yufei Wei, Shisheng Guo, Zhihao Zhu, Jiahui Chen, Guolong Cui, Lingjiang Kong Xiaobo Yang</i>	
A Compact Flexible EPDM-Based Meandered Cross-Slotted Antenna for Sub-6 Ghz 5G Applications	2276
<i>Jehangir Khan, Akhtar Khan, Mei Song Tong</i>	
A Flexible Wideband Antenna Based on EPDM for ISM and WBAN Applications	2282
<i>Jehangir Khan, Mei Song Tong</i>	
Dielectric Stability and Homogeneity of In-House Synthesized Muscle Phantom for 5G Radiation Exposure	2288
<i>Nur Farah Afifah Asmadi, Aduwati Sali, Nurul Huda Abd Rahman, Suriati Paiman Muhammad Zamir Mohyedin</i>	
Structural-Perceptual Image Super Resolution Using Charbonnier-SSIM Loss in an Efficient Sub-Pixel Convolutional Network	2296
<i>Bashir Zubair, Weidong Hu, Jincheng Peng</i>	
Perspectives for Single Microwave Photon Detection	2304
<i>Sergio Pagano</i>	
Macroscopic Quantum Systems and Gravitational Fields	2310
<i>Giovanni Alberto Ummarino, Antonio Gallerati</i>	
Tracing Gravity-Induced Collapse Through X-ray Emission Patterns	2319
<i>K. Piscicchia, F. Artibani, M. Bazzi, N. Bortolotti, A. Clozza, F. Clozza, L. De Paolis, R. Del Grande S. Donadi, C. Guaraldo, M. Iliescu, M. Laubenstein, S. Manti, J. Marton, A. Porcelli, A. Scordo F. Sgaramella, D. L. Sirghi, F. Sirghi, J. Zmeskal, S. H. Yip, C. Curceanu</i>	
Integration of Optical Transceivers in Radar Systems: A Telecommunication Perspective	2328
<i>Deomits Andrejevs, Aleksejs Kopats, Toms Karklins, Elvira Kadylbekkyzy, Mareks Parfjonovs Igorš Liplanskis, Aleksandrs Ipatovs</i>	
Measuring and Evaluation of the Indoor Climate Sensors	2332
<i>Romualds Beļinskis, Jurijs Titovičs, Nikolajs Bogdanovs, Artjoms Ratkuns, Daniils Aleksandrovs-Moisejs Mareks Parfjonovs, Igorš Liplanskis, Toms Kārklīņš, Aleksandrs Ipatovs</i>	
Design of Dual-Frequency Miniaturized Transmitting Antenna for Wireless Energy Transmission System	2339
<i>Xiaokui Kang, Hongbin Ma, Zihui Liu, Huanran Qiu, Jiangtao Huangfu, Ying Li, Rui Xi</i>	
Inverse Design of Frequency-Selective Reflector Based on Convolutional Neural Network	2344
<i>Yuanhao Zhang, Huanran Qiu, Ying Li, Long Li, Rui Xi</i>	
Transmission Characteristics of High-speed Train Window Glass in the 2-20 GHz Frequency Band	2349
<i>Yudan Lu, Yong Luo</i>	
Compact Metamaterial Antenna for Advanced Robotic Communication	2353
<i>Azunka N. Ukala, Saif Jamal Qureshi, Martin A. Thomas, Eugene A. Ogbodo, Adekunle Adeleke</i>	
Invisible Connections: Pandemic-Era Technology for Homelessness Support — A Design and Statistical Study	2361
<i>Eddy Semayobe, Azunka N. Ukala, Catherine C. Ukala, Martin A. Thomas, Eugene A. Ogbodo</i>	

Optimized FPGA Design of Efficient Sub-Pixel Convolutional Network for Real-Time SAR Image Super-Resolution	2371
<i>Bashir Zubair, Weidong Hu, Jincheng Peng</i>	
Analytical Method of Scattered Electromagnetic Field by a Buried Sphere	2376
<i>Kai Zhao, Decheng Hong</i>	
Investigation of Dynamic Magnetoelectric Effect in La-Doped Z-type Hexaferrites	2382
<i>Huantong Wu, Jun Li, Fuguang Han, Zhongxiang Zhou</i>	
Smith-Chart-Driven Optimization of $\text{Bi}_{1-x}\text{Te}_x$ Single Crystal for Broadband Microwave Absorption	2390
<i>Zegeng Chen, Jun Li, Zhengyu Zhang, Xinqi Wang, Zhongxiang Zhou</i>	
Synergistic Magnetic-Dielectric Loss in In Situ Grown Composites via Molten Salt Etching for Advanced Microwave Absorption	2397
<i>Zeyang Zhang, Jun Li, Huantong Wu, Zhengyu Zhang, Nandong Deng, Zhongxiang Zhou</i>	
Hybrid Silicon Nitride-Polymer Electro-Optic Waveguide Switches	2404
<i>Jiachen Pang, Senyu Wang, Zhuo Chen, Jiayi Lu, Pengwei Li, Chuanbo Li, Honglian Guo, Jieyun Wu Shuhui Bo</i>	
AI-Driven Personal Remote Sensing Smartwatch for Respiratory and Environmental Health Assessment and Personalized Insights	2410
<i>Reem Kassem, Mahdi Mohammed, Rawan Abosedo, Amro Nour</i>	
A Dual-Functional Metasurface for Simultaneous Microwave Absorption and Vortex Beam Generation Towards Enhanced RCS Reduction	2419
<i>Xinqi Wang, Jun Li, Zhuyu Hua, Zhengyu Zhang, Zegeng Chen, Zhongxiang Zhou</i>	
Finite Element Simulation and Machine Learning of Magnetoelectric Coupling Properties of 2–2 Type Multiferroic Composites	2426
<i>Fuguang Han, Jun Li, Huantong Wu, Zhongxiang Zhou</i>	
Progress of Common-Mode Suppression Technology for Electromagnetic Compatibility: Advanced Processes and Design Methods	2434
<i>Peng Zhou, Qiao Chen, Dazhi Ding</i>	
Super-Resolution Imaging Method for Forward-Looking Phased Array Scanning Radar	2439
<i>Xingyu Tuo, Wen Jing, Yushi Xu, Gei Jiang</i>	
Simultaneously Transmitting and Reflecting Reconfigurable Intelligent Surfaces (STAR-RIS) for Terahertz Wireless Communication	2444
<i>Masood Urrahman, Feng Lan, Luyan Wang, Munan Yang, Yuetin Li, Xiaolei Nie, Jiayao Yang Ziqiang Yang, Yaxin Zhang</i>	