

2024 18th European Conference on Antennas and Propagation (EuCAP 2024)

**Glasgow, United Kingdom
17-22 March 2024**

Pages 1-650



**IEEE Catalog Number: CFP2477B-POD
ISBN: 979-8-3503-9443-6**

**Copyright © 2024, European Association of Antennas and Propagation (EurAAP)
All Rights Reserved**

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

IEEE Catalog Number:	CFP2477B-POD
ISBN (Print-On-Demand):	979-8-3503-9443-6
ISBN (Online):	978-88-31299-09-1

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

CURRAN ASSOCIATES INC.
proceedings
.com

TABLE OF CONTENTS

Wideband Decoupling Smartphone Antenna with Integrated Metal Rim.....	1
<i>Yi-Min Gan, Qing-Xin Chu</i>	
Towards Optimal Binary Patterns for Compressive Terahertz Single-Pixel Imaging.....	4
<i>Adolphe Ndagijimana, Iñigo Ederra, Miguel Heredia Conde</i>	
Crank–Nicolson FDTD Method in Media Described by Time-Fractional Constitutive Relations	9
<i>Damian Trofimowicz, Tomasz P. Stefanski, Jacek Gulowski</i>	
Improving Air-Writing Accuracy Through Data Regression and Interpolation in a Single Radar System	14
<i>Seungheon Kwak, Chanul Park, Seongwook Lee</i>	
Self-Resonant Broadside-Radiating Superdirective Unidirectional Mixed-Multipole Antennas	19
<i>Richard W. Ziolkowski</i>	
Superdirective Broadside-Radiating Unidirectional Mixed-Multipole Antenna Arrays.....	24
<i>Richard W. Ziolkowski</i>	
A Compact Flexible BLE Antenna for a Remote-Control Application	29
<i>Ihsan El Masri, Jean-Philippe Coupez</i>	
Sub-THz Substrate Integrated Waveguide Signal Transitions in Backend-of-Line of a Silicon Process.....	34
<i>A. Bhutani, M. Kaynak, M. Wietstruck, E. Bekker, I. K. Aksoyak, J. Hebel, T. Zwick</i>	
Circularly-Polarized Wideband Conformal Magneto-Electric Antenna Covering the GNSS Bands.....	39
<i>Alexandre Causse, Loic Bernard, Sylvain Collardey, Ala Sharaiha</i>	
Low-Profile In-Band Pattern Diversity Antenna with Improved Bandwidth	43
<i>Chunxu Mao, Long Zhang, Xiuyin Zhang</i>	
Model-Based Deep Learning for High-Dimensional Periodic Structures	48
<i>Lucas Polo-López, Luc Le Magoarou, Romain Contreres, María García-Vigueras</i>	
The Kootwijk VLF Antenna: A Numerical Model	53
<i>Marcus C. Walden</i>	
Analysis of the Capacity and Energy Efficiency of Metallodielectric Surface Wave Links Operating Beyond Y Band.....	58
<i>J. Qing, Miguel Navarro-Cía</i>	
Using a Radio-Frequency System on a Chip in the Development of a Phased Radio Array for the Bustling Universe Radio Survey Telescope in Taiwan.....	61
<i>Homin Jiang, Kai-Yang Lin</i>	
Leading Edge Conformal ARMA Antenna in X Band	66
<i>Pierre-Etienne Portalier, Hassan Chreim, Philippe Leveque, Bernard Jecko</i>	
Design and Measurement of a 2x2 Array of Coaxial Periodic Leaky-Wave Antennas	70
<i>Syed Osama Kamal, Lai Bun Lok</i>	

Geometry Reconstruction from Entries of Impedance Matrices	75
<i>Quanfeng Wang, Alexander H. Paulus</i>	
Inverse Source-Based Three-Antenna Methods in the Near Field	80
<i>Alexander H. Paulus, Thomas F. Eibert</i>	
Delving into Time Domain Gating: An Extensive Study on Parameter Selection and Its Implications	85
<i>Zhong Chen, Dennis Lewis</i>	
Mutual Coupling Reduction in 5G MIMO Antenna Using Dielectric Bridge and Superstrate	90
<i>Oludayo Sokunbi, Ahmed Kishk</i>	
A Two-Component 2-D FDFD Eigenmode Method Incorporated with the Conformal Technique	95
<i>Yong Wang, Scott Langdon</i>	
Tunable Optimal Anomalous Reflection Using Discrete Impedance Metasurfaces	99
<i>Javad Shabanpour, Constantin Simovski</i>	
On the RF Absorber Coverage of Antenna Under Test Positioners	103
<i>Vince Rodriguez, Mark Ingerson, Gwenaël Dun</i>	
Maximum Gain Estimates for Corporate-Fed Arrays	108
<i>Christopher G. Hynes, Rodney G. Vaughan</i>	
A Comprehensive Mobile Phone Antenna Performance Evaluation Model Based on Deep Learning	113
<i>Hui Zhao, Dianyuan Qi, Xudong An, Congsheng Li</i>	
Cost-Efficient Large-Scale Re-Design of Multi-Band Antennas Using Orthogonal Scaling Directions	117
<i>Anna Pietrenko-Dabrowska, Slawomir Koziel</i>	
Inconsistency in Modes of Circular Microstrip Antennas and Its Rectification	122
<i>Deeepankar Shri Gyan, K. P. Ray</i>	
Unconventional Surrogate-Assisted Approaches to EM-Driven Antenna Design. Modeling and Optimization: Global, Multi-Objective, Statistical	126
<i>Slawomir Koziel, Anna Pietrenko-Dabrowska</i>	
DRL-Based Sidelobe Suppression for Multi-Focus Reconfigurable Intelligent Surface	131
<i>Wei Wang, Peizheng Li, Angela Doufexi, Mark A Beach</i>	
A Comparison of Near-Field to Far-Field Transformation Techniques for Use with Industrial Multi-Axis Robotic Antenna Measurement Systems	136
<i>S. F. Gregson, C. G. Parini</i>	
Dynamic Programming-Based Beam Codebook Design for mmwave Multi-antenna Module in Mobile Devices	141
<i>Bing-Jia Chen, Yun-Ting Tsai, Sheng-Yeh Yang, Sung-Mao Liao, Chien-Ming Hsu, Chuan-Chien Huang, Kuo-Chu Liao, Shih-Yuan Chen</i>	
Dual-Polarized Reconfigurable Metacavity Transceiver for Computational Polarimetric Imaging	146
<i>Mengran Zhao, Mohsen Khalily, Okan Yurduseven</i>	
Dielectric Characterisation of Human Parathyroid Glands at Microwave Frequencies	151
<i>Bilal Amin, Atif Shahzad, Ana González-Suárez, Eoghan Dunne, Aoife Lowery, Martin O'Halloran, Adnan Elahi</i>	

Chipless RFID Sensor on Paper Substrate.....	156
<i>Cong Danh Bui, Adam Narbudowicz</i>	
Pathloss-Based non-Line-of-Sight Identification in an Indoor Environment: An Experimental Study	160
<i>M. Asim, M. Ozair Iqbal, Waqas Aman, M. Mahboob Ur Rahman, Qammer H. Abbasi</i>	
Compressive Sensing Applied to Production Testing of Array Antennas Using a Robotic Arm and Very Sparsely Sampled Near-Field Measurements.....	165
<i>C. G. Parini, S. F. Gregson</i>	
Beamforming Orthogonality in Coupled Directional Modulation Arrays	170
<i>Jiayu Hou, Haijun Fan, Yuan Ding, Yue Xiao, Symon Podilchak</i>	
Exact Maxwell Solution for Arbitrary Transverse Electric Multipole Radiation for Spherical Electric Current Density	175
<i>David Alan Garren</i>	
3D Printed Cascaded Cavity-Backed Millimeter-Wave Filtering Antenna.....	180
<i>Bing Xue, Fan Jiang, Katsuyuki Haneda, Xiantao Yang, Clemens Icheln</i>	
Imaging Radar Frontend with SIW Feeding Networks	185
<i>Rakesh Kumar, Alok Prakash Joshi, Anamika Verma, Akshay Ashok Hublikar, Stephan Renner, Marta Martínez-Vázquez</i>	
Feasibility Study of Joint Modeling of Environmental and Morphological Effects for WBAN	188
<i>Badre Youssef, Christophe Roblin</i>	
RIS Performance in a Comprehensive Fading Environment.....	193
<i>Pedro Márcio Raposo Pereira, Rausley A. A. De Souza, Michel Daoud Yacoub, Yonghui Li</i>	
Circular Loop Antennas with Quasi-Two Sources for Broadband Circular Polarization	198
<i>Kazuhide Hirose, Mitsuki Hirose, Hisamatsu Nakano</i>	
Optimizing RF Energy Harvesting in IoT: A Machine Learning Estimation Considering Polarization Effects	202
<i>Khatereh Nadali, Adnan Shahid, Nicolas Claus, Sam Lemey, Patrick Van Torre, Max J. Ammann</i>	
Context-Aware Channel Sounder for AI-Assisted Radio-Frequency Channel Modeling.....	207
<i>Camillo Gentile, Jelena Senic, Anuraag Bodi, Samuel Berweger, Raied Caromi, Nada Golmie</i>	
Vector Potentials for Uniaxial Media with Sources.....	212
<i>Michael Havrilla</i>	
AI-Based Environment Segmentation Using a Context-Aware Channel Sounder	216
<i>Anuraag Bodi, Samuel Berweger, Raied Caromi, Jihoon Bang, Jelena Senic, Camillo Gentile</i>	
Ray-Tracing Model for the Design and Efficiency Calculation of a Monolithic Geodesic Lens Array Antenna	221
<i>P. Castillo-Tapia, J. Rico-Fernandez, F. Mesa, O. Quevedo-Teruel</i>	
A Multilayer Dual-Polarized Stacked Patch Antenna with Enhanced Port Isolation for mmwave Highly Integrated Applications.....	226
<i>Qingling Yang, Yi Wang, Qingchun You, Lehu Wen, Zhenhua Sampson Hu</i>	

Sub-Terahertz MassiveMIMO Channel Sounder for 6G Mobile Communication Systems	231
<i>Minoru Inomata, Wataru Yamada, Ryotaro Taniguchi, Nobuaki Kuno, Koshiro Kitao, Takahiro Tomie, Satoshi Suyama, Michael Millhaem, Takao Miyake, Roger Nichols</i>	
Polarization Insensitive Broadband Frequency Selective Raserber with Improved Selectivity for Stealth Applications.....	236
<i>Baisakhi Bandyopadhyay, Arun Kumar Shahi, Alka Dileep, Mondeep Saikia, Kumar Vaibhav Srivastava</i>	
Compact Wideband Circularly Polarized Antenna Array for Satellite Applications	241
<i>Nasimuddin, Xianming Qing</i>	
Inverse Source Solutions with Spectral Filtering	246
<i>T. F. Eibert, M. M. Saurer, A. H. Paulus, J. Knapp</i>	
Loss Analysis for Compact Liquid Crystal Delay Lines Based on Defective Ground Structures	251
<i>Robin Neuder, Marc Späth, Martin Schüßler, Alejandro Jiménez-Sáez</i>	
Wideband Characterization of Wireless Power Transfer in Ventilation (HVAC) Ducts for the Internet of Things and Smart Buildings.....	256
<i>Guillaume Villemaud, Régis Rousseau, Jules-Henri Paques</i>	
A Low Profile Dual-Band Dual-Polarized Filtering Antenna with No Extra Circuit	259
<i>Xuekang Liu, Benito Sanz-Izquierdo, Steven Gao</i>	
Quantification and Correction of Signal Averaging with On-The-Fly Sampling in Near-Field Antenna Measurements	264
<i>Olav Breinbjerg</i>	
Design Effects of the Junction Contour of a Blended Rolled Edge Compact Range Reflector.....	269
<i>M. Dirix, S. F. Gregson</i>	
High Resolution ISAR Imaging Methods for RCS Data Analysis	274
<i>Christer Larsson, Andreas Gällström</i>	
Microwave to mmwave Wireless Power Transfer: An Overview of the Design Challenges with a Focus on UK-Based R&D	279
<i>Mahmoud Wagih, Chaoyun Song</i>	
Angle of Arrival Estimation Methods Using Spherical-Modes-Driven Multiport Antennas.....	283
<i>Linta Antony, Abel Zandamela, Nicola Marchetti, Adam Narbudowicz</i>	
Loaded and Load-Less Supergain Parasitic End-Fire Arrays	288
<i>Alessio Tornese, Antonio Clemente, Christophe Delaveaud</i>	
Metamaterial-Based Ku-Band Flat-Panel High-Gain Antenna for Satcom Applications	293
<i>Muhammad Rabbani, James R. Henderson</i>	
1-Bit Reconfigurable Transmitted/Reflected Array (TRA) for 5G/6G Wireless Communication.....	298
<i>Yujie Liu, James R. Kelly, Mark Holm, Srikanth Gopal, Sina Rezaei Aghdam, Yuanwei Liu</i>	
Design of a Dual-Polarization Ultra-Wideband Horn Antenna	301
<i>Nan Hu, Shuang Liu, Jianrui Liu, Lixin Zhao, Wenqing Xie</i>	
Design of Ultra-Wideband Dual-Polarized Corrugated Horn Antenna for 5G Application	305
<i>Nan Hu, Shuang Liu, Jianrui Liu, Lixin Zhao, Wenqing Xie</i>	

Development of an Analytical Quantum Full-Wave Solution for a Transmon Qubit in a 3D Cavity.....	309
<i>Soomin Moon, Thomas E. Roth</i>	
Multipath Model Improvement for Automotive Radar Application	314
<i>Antonin Locatelli, Jose Luis Alvarez-Perez, Alexander Yarovoy</i>	
Omnidirectional Cylindrical Dielectric Resonator Antenna for off & on Body Communications	319
<i>Tarek S. Abdou, Salam K. Khamas</i>	
Application of Compressed Sensing to Antenna Far-Field Calibration in an Extrapolation Range	324
<i>Zhong Chen, Yibo Wang</i>	
Alternate Optimization with Deep Learning to Design Beam Deflector Under Aperiodic Near-Field Coupling Conditions.....	329
<i>Qimin Ding, Guobin Wan, Nan Wang, Xin Ma</i>	
Improvements of Scintillation Modelling from Radiosonde Observations in the Arctic Region	334
<i>Florian Quatresooz, Martin Rytir, Danielle Vanhoenacker-Janvier, Claude Oestges</i>	
On the Radiation Resistance of Folded Antennas.....	339
<i>Marcus C. Walden</i>	
Orthogonal Coding for Millimeter-Wave Imaging Using MIMO Dynamic Metasurface Apertures.....	343
<i>Vasiliki Skouroliakou, Amir Masoud Molaee, Maria Garcia-Fernandez, Guillermo Alvarez-Narciandi, Okan Yurduseven</i>	
A Wearable Open-Ring Dielectric Resonator Antenna with Frequency Reconfiguration	348
<i>Xuewen. Jiang, Zhijiao. Chen, Benito Sanz-Izquierdo</i>	
A Vector Differential Coding for Hybrid RIS Aided Zero-Padded OTFS Systems.....	351
<i>Lingling Zhang, Jianan Zhang, Chengkai Tang</i>	
3D Method-Of-Moment Design of Huygens' Metasurfaces.....	355
<i>Tianke Qiu, Vasileios G. Ataloglou, George V. Eleftheriades</i>	
Irregular Subarray with Gathered Elements for Sidelobe Suppression	359
<i>Yihan Ma, Qi Luo, Wei Liu, Steven Gao</i>	
Empirical Path Loss Model and Small-Scale Fading Statistics in an Indoor Office Environment in 6 and 37 GHz Shared Bands.....	364
<i>Ruoyu Sun, Dorin Viorel, Wilhelm Keusgen, Ruth Gebremedhin</i>	
Generalized Transition Matrix Model Using Characteristic Basis Function Method for Open-Ended Cavities.....	369
<i>Inhwan Kim, Hyeong-Rae Im, Ic-Pyo Hong, Hyunsoo Lee, Jong-Gwan Yook</i>	
Simulation Based Uncertainty Analysis for Active Two-Way-Radiation Pattern Measurements of Circularly Polarized Antennas	372
<i>A. C. Granich, D. Heberling</i>	
Fully Autonomous Reconfigurable Metasurfaces with Integrated Sensing and Communication.....	377
<i>Hamidreza Taghvaei, Maryam Khodadadi, Gabriele Gradoni, Mohsen Khalily</i>	
A High-Precision Approach to Eliminate Positioning Errors in Radar Calibrations	382
<i>Matthias Linder, Dominik Schwarz, Robin Bord, Nico Riese, Christian Waldschmidt</i>	

An Eigenvector-Supported Optimization Method for Holographic-Based Leaky Wave Antennas	387
<i>Thomas Frey, Maximilian Döring, Christian Waldschmidt, Tobias Chaloun</i>	
Antenna System for Simultaneous Wireless Power and Information Transfer to Brain Implants	392
<i>Ali Khaleghi, Aminolah Hassanvand, Ilangko Balasingham</i>	
Comparison of Simplistic System-Level RIS Models and Diffraction-Theory Solutions	397
<i>Le Hao, Francisco S. Cuesta, Sergei A. Tretyakov</i>	
From Reconfigurable Intelligent Surfaces to Holographic MIMO Surfaces and Back	402
<i>Ashwin Thelappilly Joy, Anton Tishchenko, Hamidreza Taghvaei, Paul Botham, Fraser Burton, Mohsen Khalily, Rahim Tafazolli</i>	
Investigation of Near-Field Contribution in Shooting and Bouncing Rays for Installed Antenna Performance on a Simple Platform.....	407
<i>Harald Hultin, Henrik Frid, B. L. G. Jonsson, Johan Malmström</i>	
Antenna Design for TriHex: A Future Soil Moisture and Ocean Salinity Radiometer Mission	412
<i>Q. Garcia-Garcia, A. Lopez-Yela, A. Zurita, A. Olea, M. Martin-Neira, E. Gandini, M. Suess</i>	
Beamforming Schemes for 6G Direct-To-Cell Connectivity Using Satellite Swarms	417
<i>Diego Tuzi, Thomas Delamotte, Andreas Knopp</i>	
Two-Dimensional, Un-Equal, Series Power Dividers for Feeding Antenna Arrays	422
<i>B. Agaev, R. Bauer, H. Matzner</i>	
The Time Modulated Array for Channel Sounding Measurements – Concept and Initial Field Tests.....	427
<i>Edward A. Ball, Sumin David Joseph, Alan Tennant</i>	
110 to 170 GHz High-Gain Antenna with Embedded Surface Mount Short Horn and Baseband PCB Horn Antenna	432
<i>Elizabeth Bekker, Alexander Quint, Georg Gramlich, Luca Valenziano, Thomas Zwick, Akanksha Bhutani</i>	
Efficient Ray- Tracing Approach to Analyze Arbitrarily Shaped Leaky-Wave Antennas Embedded in Lenses.....	437
<i>Miguel Poveda-Garcia, Francisco Mesa, Jose L. Gómez-Tornero, Astrid Algaba-Brazález, Oscar Quevedo-Teruel</i>	
A Modular, Low-Cost Ka-Band Antenna Subarray as Building Block for Phased Arrays of Arbitrary Size and Shape.....	442
<i>Federico Boulos, Ernest O. Addo, Stefano Caizzone, Ulf Johannsen</i>	
High-Gain Shared-Aperture Patch Phased Array and Reflectarray Antenna.....	446
<i>Senlin Lu, Shi-Wei Qu</i>	
3D-Printed Wearable Antenna Integrated with Rectifier for Wireless Power Transfer.....	449
<i>Xiaoyang Yin, Tucker Stuart, Shengjian Jammy Chen, Philipp Gutruf, Christophe Fumeaux</i>	
A Polarization-Insensitive Ultra-Broadband FSS Absorber with Low-Profile Based on the ITO Film	454
<i>Nan Wang, Guobin Wan, Qimin Ding, Xin Ma</i>	
Ultra-Wideband Wide-Scanning Dual-Polarized Vivaldi Antenna Unit with Novel Pendulum-Shaped Slots	458
<i>Shigang Fang, Shi-Wei Qu</i>	

DC Bias Routing Design for Wideband Reconfigurable Transmitarray Based on 1-Bit Phase-Switching Elements	462
<i>Bo-Ting Lin, Sheng-Wei Wu, Shih-Yuan Chen</i>	
Antenna and Mechanical Co-Design for Auto-Beam-Tracking in Backhaul Systems	467
<i>Enlin Wang, Anders Wennergren, Henrik Stalrud, Carlo Bencivenni, Esperanza Alfonso, Ashraf Uz Zaman, Jian Yang</i>	
Flexible Phase-Reconfigurable Branch Line Coupler for Millimeter-Wave Phased Array Antenna	472
<i>Fayyadh H. Ahmed, Rola Saad, Salam K. Khamas</i>	
Designing Transmissive Metasurface for Multibeam Transmitarray at 5G Millimeter-Wave Band	477
<i>Weixu Yang, Ke Chen, Yijun Feng</i>	
A 2x2 Dual-Band Open Loop Array with Circular Polarisation	482
<i>E. Merlos-Garza, R. Saad, S. K. Khamas</i>	
GHz Prism: Frequency-Scanned Antennas to Improve Localization with Separate-Channel Fingerprinting	486
<i>José Luis Gómez-Tornero, José Antonio López-Pastor, Alejandro Gil-Martinez, Miguel Poveda-García, Astrid Algaba-Brazalez</i>	
Transmissive-Type Metagratings with Few Meta-Atoms for Beam Splitting	491
<i>Zhen Tan, Jianjia Yi, Badreddine Ratni, André De Lustrac, Shah Nawaz Burokur</i>	
Compact Hybrid Optical/RF User Segment (CHORUS): RF Terminal Design	496
<i>C. Granet, J. Ness, G. Callaghan, G. Mason, P. Kerr</i>	
A Possible Way to Reduce the High Sidelobe Levels Due to Reflector Struts: Curly Struts	501
<i>C. Granet, T. A. Milligan, R. A. Hoferer, S. B. Sorensen</i>	
Compact Amplitude-Monopulse Microstrip Antenna Design for Wide Field-of-View Direction Finding	506
<i>Alejandro Gil-Martinez, Miguel Poveda-García, David Cañete-Rebenaque, Astrid Algaba-Brazalez, José Luis Gómez-Tornero</i>	
Adaptive Polynomial Chaos Expansion for Uncertainty Quantification of SubTHz Horn Antennas with Flat-Top Radiation Patterns	511
<i>Aristeides D. Papadopoulos, Yihan Ma, Qi Luo, George C. Alexandropoulos</i>	
On the Use of Adaptive-Density Point Cloud for Site-Specific Ray-Optics Simulations	516
<i>Pasi Koivumäki, Katsuyuki Haneda, Andreas F. Molisch</i>	
Wide-Angle Quasi-Optical Beamformer for LEO Applications	521
<i>Léonin Lassaue, Jean-Philippe Fraysse, Ségolène Tubau, Romain Contreres, Mauro Ettore</i>	
Additively Manufactured Waveguide Hybrid Septum Coupler Optimized Using Machine Learning	524
<i>Nelson J. G. Fonseca, Mobayode O. Akinsolu, José Rico-Fernández, Bo Liu, Jean-Christophe Angevain</i>	
Management of Radiofrequency Compatibility on Aircraft	528
<i>Alexandre Piche, Richard Perraud, Guillaume Sylvand, Isabelle Terrasse, Pierre Benjamin, Jerome Robert, Toufic Abboud, Benoit Chaigne, Lucia Scialacqua, Lars Jacob Foged, Dominique Donval, Robert Keibel, Stefan Boerninck</i>	

A Small-Sized Antenna System for Direction Finding Applications on a Single Plane (1D) Using BT 5.1	533
<i>Ioannis Gouzouasis, Mohamad Abou Nasa, Peter Karlsson</i>	
A Novel Metasurface Inverse Design Based on Back Propagation Neural Network	538
<i>Tao Qin, Su Wen, Xian Qi Lin, Yuyan Cao, Yang Cai, Peng Mei</i>	
Frequency Scanning Leaky-Wave Antenna for On-Body Radar: Design and Conformal Analysis	543
<i>Pratik Vadher, Giulia Sacco, Denys Nikolayev</i>	
Efficient Ray- Tracing Model for Generalized 2D Dielectric Lenses Combined with Arrays	547
<i>Maria Pubill-Font, Francisco Mesa, Astrid Algaba-Brazález, Martin Johansson, Lars Manholm, Pilar Castillo-Tapia, Sarah Clendinning, Can Ding, Y. Jay Guo, Oscar Quevedo- Teruel</i>	
A Compact Horn Antenna with Low Sidelobes.....	552
<i>G. Harari, N. Nikson, R. Bauer, H. Matzner</i>	
Gaussian Processes for Received Signal Strength Based Device-Free Localization.....	556
<i>Ossi Kaltiokallio, Roland Hostettler, Jukka Talvitie, Mikko Valkama</i>	
Applying Neural Networks for Predicting Feed Weights of an Antenna Array	561
<i>Juho Tyrväinen, Anu Lehtovuori, Pasi Ylä-Oijala, Ville Viikari</i>	
Gain Improvement of a DRA Using Deep Reinforcement Learning with Polygon Mesh Deformation.....	566
<i>Kirill Kurskiy., Xiantao Yang, Yi Huang</i>	
RIS with Practical Reflection Coefficients: Modeling and Experimental Measurements	569
<i>Lin Cao, Haifan Yin, Xilong Pei, Li Tan</i>	
Indoor Propagation Measurements with a Reconfigurable Intelligent Surface at 3.5 GHz	574
<i>Jesper Ødum Nielsen, Ondrej Franek, Ying Zhinong</i>	
Performance Analysis of THz Backhaul Links Assisted by Reconfigurable Intelligent Surfaces	579
<i>Bo Kum Jung, Thomas Kürner</i>	
RIS-Enabled Near-Field Localization with EMI	584
<i>Saber Hassouna, Muhammad Ali Jamshed, Masood Ur-Rehman, Muhammad Ali Imran, Qammer H. Abbasi</i>	
Dual Functional Mm Wave RIS for Radar and Communication Coexistence in Near Field.....	589
<i>Anton Tishchenko, Ahmed Elzanaty, Francesco Guidi, Anna Guerra, Alberto Zanella, Mohsen Khalily</i>	
Enabling Shape Morphing Communications at mmwave with Spray on Antenna Arrays	593
<i>Rola Saad, Benedict Davies, Stephen Henthorn</i>	
Analysis of the Interaction of Laser-Induced Solid-State Plasma with Electromagnetic Waves in Silicon Waveguides at 67–220 GHz	596
<i>Mehrdad Rezaei Golghand, Alireza Madannejad, Umer Shah, Joachim Oberhammer</i>	
Spherical Active Frequency-Selective Surface for 3-D Beam-Scanning Antenna	600
<i>Hassan Ali</i>	
A Deep Split-Step Wavelet Model for the Long-Range Propagation	604
<i>Thomas Bonnafont, Benjamin Chauvel, Abdelmalek Toumi</i>	

Metasurfaces Meet Characteristic Modes.....	609
<i>Feng Han Lin, Yi Hui Zhu, Yi An Mao, Jia Fan Gao, Si Yu Miao, Yi Zheng, Tong Wu</i>	
Observation of Exceptional Points in Parity-Time Symmetric Coupled Impedance Sheets.....	614
<i>Afshin Abbaszadeh, Jordan Budhu</i>	
The Impact of a Phantom's Size on the Performance of an Implanted Antenna.....	619
<i>Mohammed Aldosari, Salam K. Khamas</i>	
Analysis of Time and Direction of Arrival (TADOA) Data Using Basis Pursuit in the AFRL One-RY Antenna Measurement Range.....	624
<i>Brian Fischer, Michael Blischke, Ivan Lahaie, Brian Kent, James Stewart, Brittany Wells</i>	
Propagation Path Analysis with Propagation QUBO Model in Urban Area.....	629
<i>Keita Fujita, Keisuke Hayashi, Tetsuro Imai, Minoru Inomata, Wataru Yamada</i>	
Terahertz Channel Modeling Based on Scattering Characterization	633
<i>Ran Pan, Danping He, Ke Guan, Bile Peng, Jianwu Dou, Lantu Guo, Zhangdui Zhong, Thomas Kürner</i>	
Horn Antenna Phase Center Position Influence on Sub-THz Measurements Uncertainties.....	638
<i>Mohanad Dawood Al-Dabbagh, David Ulm, Thomas Kleine-Ostmann, David Humphreys</i>	
Measurement-Based Channel Characteristics for Air-to-Ground Communications Under Rural Areas.....	643
<i>Xuchao Ye, Hanpeng Li, Kai Mao, Qiuming Zhu, Farman Ali, Xiao-Min Chen, Yanheng Qiu, Hangang Li</i>	
High-Gain and Circular Polarization Silicon-Micromachined Lens Antennas at 500-750 GHz	648
<i>Alireza Madannejad, Mohammad Mehrabi Gohari, Umer Shah, Joachim Oberhammer</i>	
A Wideband High-Gain Circularly-Polarized Metasurface Antenna with a Large Element Spacing SIW Array at Ka Band.....	651
<i>Yuehe Ge, Jiahong Chen, Jingru Wang, Zhizhang David Chen</i>	
Single Material Multilayer Radome for D Band Applications	655
<i>Arto Hujanen, Vladimir Ermolov</i>	
A Cylindrical Mismatched Luneburg Lens Implemented on PCB at V-Band	660
<i>Vincent Kaschten, Dimitri Lederer, Christophe Craeye</i>	
5G Millimeter-Wave Reflectarray Antenna Design with a Good Gain-Filtering Characteristic Based on a High-Efficiency Polarization Converter	665
<i>Wen Fu, Gert Frølund Pedersen, Shuai Zhang</i>	
A Study on W-Band Frequency Attenuation in the Presence of Human Blockage.....	668
<i>Juan E. Galeote-Cazorla, Alejandro Ramírez-Arroyo, Salvador Moreno-Rodríguez, José-María Molina-García-Pardo, María-Teresa Martínez-Inglés, Pablo Padilla, Juan F. Valenzuela-Valdés</i>	
Design of Microstrip UWB Antenna with Full Ground Plane for Wearable Applications	673
<i>Chukwuka Ozuem Anthony, Divitha Seetharamdoo, Florent Gamand, Christophe Gaquiere</i>	
6:1 Connected Slot Array in PCB Technology	677
<i>Mattia Maggi, Rémi Fragnier, Romain Contreres, Ronan Sauleau, Mauro Ettore</i>	

Cooperative Power Control and Beamforming Design for Multi-Source Enabled Wireless Power Transfer Networks	680
<i>Xiaopeng Yuan, Huanyu Zhang, Paul Zheng, Anke Schmeink</i>	
Leveraging Radar Back-Scattered Data for Classification of Imaging Targets	685
<i>Rahul Sharma, Okan Yurduseven</i>	
Genetic Algorithm-Based Beamforming in Subarray Architectures for GEO Satellites	690
<i>Juan Andrés Vásquez-Peralvo, Jorge Querol, Eva Lagunas, Flor Ortiz, Luis Manuel Garcés-Socarrás, Jorge Luis González-Rios, Víctor Monzon Baeza, Symeon Chatzinotas</i>	
Non-Volatile RF Frequency Reconfigurable Antenna for Wireless Communication	695
<i>Xiaoyu Xiao, Yize Li, Zirui Zhang, Zhirun Hu</i>	
A High-Isolation Dual-Band Base Station Antenna Design for Full Duplex Technologies.....	699
<i>Lucas Nogueira Ribeiro, Duy Hai Nguyen, Philipp Karl Gentner, Maximilian Göttl</i>	
Single-Branch Hybrid Resistance Compression Technique for Enhanced Rectifier Performance	704
<i>Furong Yang, Apostolos Georgiadis, Spyros Daskalakis, Kyriaki Niotaki, Yichao Hu, Jichao Yang, Chaoyun Song</i>	
Recent Advances in Plasma Surfaces	708
<i>Mirko Magarotto, Luca Schenato, Marco Santagiustina, Andrea Galtarossa, Antonio-Daniele Capobianco</i>	
Exploring RIS Coverage Enhancement in Factories: from Ray-Based Modeling to Use-Case Analysis	713
<i>Gurjot Singh Bhatia, Yoann Corre, Thierry Tenoux, M. Di Renzo</i>	
Tunable Segmented Loop Antenna Reader for Miniaturized Chipless Tag Detection	718
<i>Adrián Fernández Carnicero, Anja K. Skrivervik</i>	
Validation of a Large Retrodirective CASSIOPEIA Solar Power Satellite Antenna Array	723
<i>Neil Buchanan, Yat Hin Chan, Hossein Mardani, Dmitry Zelenchuk</i>	
Reflective Surfaces Based on Semi-Passive Reconfigurable Polymer Network Liquid Crystal	728
<i>Pablo De La Rosa, Robert Guirado, Gerardo Pérez-Palomino, Eduardo Carrasco, Manuel Caño-García</i>	
Broadening the Spectrum: Extending the Finite Crystal Method to Characterize Static Multi-Atomic Active Metamaterial Systems	732
<i>Rahul Dutta, Flynn Castles, Yang Hao</i>	
Dual-Band 3-D MIMO Antenna for Deep Tissue Devices.....	736
<i>Amjad Iqbal, Penchala Reddy Sura, Muath Ai-Hasan, Ismail Ben Mabrouk, Tayeb A. Denidni</i>	
Passive Beamforming with Liquid Antennas: Techniques and Implementation.....	740
<i>Viswanadh Raviteja Gudivada, Yi Huang, Hanyang Wang, Kexin Liu, Elliot L. Bennett</i>	
Large and Simple Phased Array System at 28 GHz for Beam Wireless Power Transfer.....	744
<i>Naoki Shinohara, Bo Yang, Wenyi Shao</i>	
Miniaturized Implantable Antenna with Ultra-Wide Bandwidth Characteristics for Leadless Pacemakers	748
<i>Abdulwahab Alghamdi, Abdullah Alshammari, Liu Chang, Amjad Iqbal, Ismail Ben Mabrouk</i>	

Optimum Structured Phased Array with Novel Beam Forming Circuits for Beam Wireless Power Transfer	753
<i>Naoki Shinohara, Bo Yang, Wenyi Shao</i>	
Variable Multi-Band Metasurface Reflector with Controllable Direction Using Varactor Diodes Mounted Large-Via Mushroom-Type Structure	756
<i>Taisei Urakami, Tamami Maruyama, Akira Ono, Na Chen, Minoru Okada</i>	
Modular Ka-Band Transmit Phased Array Antenna for SATCOM Applications	761
<i>Bo Shi, Nasimuddin, Francois Chin, Xianming Qing</i>	
Validation of Pseudo-Scale Model for the Air-Sea Two-Layer Near-Field Problem by Using FDTD Simulations and Measurements in a Tank	766
<i>Nozomu Ishii, Makoto Goto, Masaharu Takahashi, Qiang Chen</i>	
Smart Propagation Environments Empowered by Metasurfaces: A Self-Consistent Study	771
<i>Hamidreza Taghvaei, Mohsen Khalily, Gabriele Gradoni</i>	
A Dual-Port Antenna for Colinearly Polarized Full Duplex and Pattern Reconfigurable Applications	775
<i>Yuqi Wang, Quan Xue, Zhipeng Hu, Shaowei Liao</i>	
Beam Training of LoS-MIMO Systems Using Subarray-Based Beamforming in the Presence of Ground Reflection	780
<i>Masahiro Takigawa, Ryochi Kataoka, Issei Kanno, Yoji Kishi</i>	
A Beam-Scanning Metal-Only Folded Reflectarray Antenna	785
<i>Haoran Jiang, Lu Guo</i>	
On the Importance of Scattering from Poles in Ray Tracing Simulations	789
<i>Remco Heijs, Gerhard Steinböck, Bengt-Erik Olsson, Martin Johansson, Bart Smolders</i>	
Proactively Conformed Near-Field Focused Modulated Leaky-Wave Antennas	794
<i>José Luis Gómez-Tornero</i>	
Instantaneous Vs Theoretical Maximum Exposure Under Real Traffic Conditions: Example in the City of Valencia	799
<i>Alvaro Villaescusa-Tebar, Alberto Najera, Jesus Gonzalez-Rubio, Concepcion Garcia-Pardo</i>	
Proposal on Application of Quantum Annealers for Analysis of Multiple Scattered Waves	804
<i>T. Imai, K. Fujita, M. Inomata, W. Yamada</i>	
Design and Prototyping of a Low-Cost Parasitic Element Antenna for a Telemetry-Telecommand Link on Ariane 6 Space Launcher	809
<i>Charles Couty, Marc Thevenot, Nathalie Lecerf, Cyrille Menudier, Anthony Disserand</i>	
Seasonal Snow Melting Process Investigation in Polar Environment Using a Dual-Receiver Radar Architecture	813
<i>Martina Lodigiani, Lorenzo Silvestri, Pedro Fidel Espín-López, Marco Pasian</i>	
Improving Scan Gain of Sparse Vivaldi Array with Parasitic Scatterers	818
<i>Albert Salmi, Jan Bergman, Anu Lehtovuori, Juha Ala-Laurinaho, Ville Viikari</i>	
Stable Phaseless Spherical Antenna Measurements Via Mixed-Norm Regularization	822
<i>Nicolas Mézières, Laurent Le Coq, Benjamin Fuchs</i>	

Sub-Wavelength Anisotropic Unit-Cells for Low-Profile Transmitarray Antennas	827
<i>Andrea Tummolo, Orestis Koutsos, Francesco Foglia Manzillo, Antonio Clemente, Agnese Mazzinghi, Angelo Freni, Ronan Sauleau</i>	
Validation of the DTU ETC Scattering Test Facility for Radar Cross Section Measurements	832
<i>Rasmus E. Jacobsen, Samel Arslanagic</i>	
From mmwave Radar Nodes to Multistatic Arrays: Design Considerations and Applications	835
<i>Ignacio Sardinero-Meirás, Ignacio E. López-Delgado, Elías Antolinos, Francisco N. Pérez-Fernández, Marta Ferreras, Lorena Pérez-Eijo, Marcos Arias, Borja González-Valdés, Jesús Grajal</i>	
Effect of Wave Polarization in On-Body Propagation for the 2.4, 24 and 60 GHz ISM Bands	840
<i>Wasi Ur Rehman Khan, Max J. Ammann, William G. Scanlon</i>	
RF Modelling and Validation of the Breadboard Antenna of the Copernicus Imaging Microwave Radiometer	844
<i>C. Cappellin, P. G. Nicolaci, R. Mizzoni, C. Mangenot, V. Lubrano, E. Trippanera, L. Datashvili, B. Fiorelli</i>	
Dual-Band mmwave Measurements of Human Body Scattering and Blockage Effects Using Distributed Beamforming for ISAC Applications	849
<i>Yang Miao, Minseok Kim, Chechia Kang, Naoya Suzuki, Sofie Pollin, Junichi Takada</i>	
Pulse Preserving Capability of an Ultrawideband Dispersive Dielectric Resonator Antenna	854
<i>Xiantao Yang, Yi Huang, Elliot L. Bennett, Ilkan Calisir, Jianliang Xiao</i>	
Bound States in the Continuum in Cylindrical Impedance Surface Cavities.....	858
<i>Rasmus E. Jacobsen, Samel Arslanagic</i>	
Ka-Band USS Enterprise (NCC-1701) Antenna.....	862
<i>Miguel Navarro-Cía, Unai Beaskoetxea, Jorge Teniente-Vallinas, Miguel Beruete</i>	
K-Factor Evaluation in a Hybrid Reverberation Chamber Plus CATR OTA Testing Setup	865
<i>Alejandro Antón Ruiz, Samar Hosseinzadegan, John Kvarnstrand, Klas Arvidsson, Andrés Alayón Glazunov</i>	
Platform Scattering Analysis of the Copernicus Imaging Microwave Radiometer	870
<i>P. G. Nicolaci, C. Cappellin, R. Mizzoni, V. Lubrano, S. Contu, B. Fiorelli</i>	
Ground Base Station Antenna Design for Air-To-Ground Communications.....	875
<i>Lucas Nogueira Ribeiro, Sertan Hastürkoglu, Jan Grävendieck</i>	
Dual-Polarization Multi-Functional Metasurface for Wireless Communications	880
<i>Guangwei Yang, Juan Andrés Vásquez-Peralvo, Lei Wang, Symeon Chatzinotas</i>	
Modeling Received Power from 4G and 5G Networks in Greece U Sing Machine Learning	884
<i>Vasileios P. Rekkas, Sotirios P. Sotiroudis, George V. Tsoulos, Georgia Athanasiadou, Achilles D. Boursianis, Zaharias D. Zaharis, Panagiotis Sarigiannidis, Christos G. Christodoulou, Sotirios K. Goudos</i>	
5G Radio Channel Characterization in an Underground Mining Environment.....	889
<i>Marko E. Leinonen, Veikko Hovinen, Risto Vuotoniemi, Aarno Pärssinen</i>	
Analytical and Numerical Evaluation of Efficient Power Transfer of Bessel-Shaped Beams in Near-Field Through a Planar Layered Medium.....	894
<i>Santi C. Pavone, Gino Sorbello</i>	

Sequential Phase Optimization for Coherent Long-Range Distributed Wireless Power Transfer to a Non-Communicative Receiver	897
<i>Barnabas Petit, Richard Hoad, Sam Hole, Vincent Fusco, Neil Buchanan, Babar Abbasi</i>	
AI-Assisted Design and Experimental Testing of a Compact UWB Antenna for the Inspection of Food and Beverage Products	902
<i>Jorge A. Tobon V., Marco Ricci, Calin I. Maraloiu, Mobayode O. Akinsolu, Mingwei He, Francesca Vipiana</i>	
Ultrahigh Sensitive Terahertz Metasurface with 2D MoS ₂ for Refractive Index Biosensing	906
<i>Tomas Pires, Ruobin Han, Vaithinathan Karthikeyan, Abdoalbaset Abohmra, Farooq A. Tahir, Hasan Abbas, Muhammad Imran, Qammer Abbasi</i>	
Quad-Junction Self-Biased Circulator with Wide Operational Bandwidth	911
<i>Lingqi Kong, Yi Huang, Alexander Schuchinsky</i>	
Physics-Informed Generative Neural Networks for RF Propagation Prediction with Application to Indoor Body Perception	915
<i>Federica Fieramosca, Vittorio Rampa, Michele D'Amico, Stefano Savazzi</i>	
Tailoring the Performance of Geodesic Lens Antennas by Defining Their Footprint	920
<i>S. Clendinning, O. Zetterstrom, J. Rico-Fernández, F. Mesa, O. Quevedo-Teruel</i>	
Optimal Design of Planar Micro-NMR Coils for High Signal-to-Noise Ratio	925
<i>Natachai Terawatsakul, Alireza Saberhari, Morgan Madec</i>	
Subsampling Time-Modulated Array for Reduced Hardware Down Conversion and Beamforming	930
<i>Sumin David Joseph, Edward A. Ball, Alan Tennant</i>	
A Higher-Order Spectral Element Method to Model Eccentric Anisotropic Two-Layer Waveguides Via Conformal Transformation Optics	935
<i>Raul O. Ribeiro, Guilherme S. Rosa, José R. Bergmann, Fernando L. Teixeira</i>	
Assessment of MFE-Based Multiport Waveguide Crossing for Use with Low-Cost, Low-Loss Dielectric Interconnects in Millimeter Wave Arrays	940
<i>Nona Messhenas, Werner L. Schroeder, Thomas Kaiser</i>	
Analysis and Optimization of Reconfigurable Intelligent Surfaces Based on S-Parameters Multiport Network Theory	945
<i>Andrea Abrardo, Alberto Toccafondi, Marco Di Renzo</i>	
A High Gain Spoof Surface Plasmon Polaritons (SSPPs) Antenna Based on a Metamaterial-Inspired Substrate Integrated Waveguide	949
<i>Yibo Ning, Zhirun Hu</i>	
Eco-Friendly and Conformable PIFA Based on PEDOT:PSS and a Sustainable Chitosan Substrate for 5G Communications	953
<i>Ilaria Marasco, Gaia De Marzo, Giovanni Niro, Francesco Rizzi, Antonella D'Orazio, Marco Grande, Massimo De Vittorio</i>	
Field Trials for Different 5G NSA Cellular Networks	958
<i>G. V. Tsoulos, G. E. Athanasiadou, G. Nikitopoulos, V. Tsoulos, N. Christopoulos, D. Zarbouti</i>	
In-Flight Calibration of the Measurement System for UAV-Based Near-Field Antenna Measurements	963
<i>Mohammad Mirmohammadsadeghi, Stefan Punzet, Thomas F. Eibert, Alexander H. Paulus</i>	

Dielectric Characterization of Materials at 5G mm-Wave Frequencies	968
<i>Rocio Rodriguez-Cano, Steven Perini, Michael T. Lanagan</i>	
Automatic Planning Algorithm of 300 GHz Backhaul Links Using Mesh Topology.....	971
<i>Yunming Liu, Bo Kum Jung, Thomas Kürner</i>	
Fully Differentiable Ray Tracing Via Discontinuity Smoothing for Radio Network Optimization	976
<i>Jérôme Eertmans, Laurent Jacques, Claude Oestges</i>	
Design of a Low-Frequency Magnetic Metasurface for Extremely Focused and Long Range Wireless Power Transfer Applications.....	981
<i>Martina Falchi, Pierpaolo Usai, Danilo Brizi, Agostino Monorchio</i>	
Indoor Channel Characterization Based on Directional Measurements at 140 GHz.....	985
<i>Jiahao Hu, Amar Al-Jzari, Sana Salous</i>	
Dual UWB Antennas on AoA Anchor Node.....	990
<i>Hossein Raghieb Hokmabadi, Khatereh Nadali, Patrick McEvoy, Sam Lemey, Max J. Ammann</i>	
Rain Attenuation at Millimeter Waves in Different Climatic Zones Estimated from Drop Size Distributions	994
<i>Ignacio Mata-Alonso, José Manuel Riera, Lorenzo Luini, Hong Yin Lam, Domingo Pimienta-Del-Valle</i>	
Cloud Attenuation in the Q Band: Estimation from Experimental Data of Excess Attenuation.....	999
<i>Domingo Pimienta-Del-Valle, Gustavo A. Siles, José Manuel Riera, Pedro Garcia-Del-Pino</i>	
Dual-Polarized Substrate Integrated Waveguide Antenna with High Isolation for Polarimetric Radar	1004
<i>I. Shahzadi, A. T. Don, M. Kuznetsov, S. K. Podilchak</i>	
Beam-Tilted All-Metal Radial-Line Slot Array Antenna with Uniform Spacing	1008
<i>Jose I. Herranz-Herruzo, Alejandro Valero-Nogueira, Miguel Ferrando-Rocher</i>	
Numerical Assessment of a Cognitive Chamber: TM ^z Case	1012
<i>Christophe Craeye, Sidina Wane, Khaldoun Alkhalifeh, Denis Tihon</i>	
Variability of Rain Attenuation at Millimeter Waves Due to Fluctuations of the Drop Size Distribution.....	1017
<i>Leyre Egozcue-Angulo, Ignacio Mata-Alonso, José Manuel Riera, Domingo Pimienta-Del-Valle, Ana Benarroch</i>	
The Effect of Pressure of the Open-Ended Coaxial Probe on the Measurement of Ex Vivo Biological Tissues Dielectric Properties	1022
<i>Ana Catarina Pelicano, Nuno A. M. Araújo, Daniela M. Godinho, Raquel C. Conceição</i>	
Uncertainty Quantification of the Gain Budget for INCUS	1027
<i>Paolo Focardi, Alessio Mancini, Gaurangi Gupta</i>	
AI-Driven Design of a Quasi-Digitally-Coded Wideband Microstrip Patch Antenna Array.....	1032
<i>Mobayode O. Akinsolu, Yasir I. A. Al-Yasir, Qiang Hua, Chan See, Bo Liu</i>	
Dual-Polarized OAM Antenna with Frequency and Mode Agility for Intelligent OAM Communications.....	1036
<i>Hassan Naseri, Peyman Pourmohammadi, Noureddine Melouki, Fahad Ahmed, Amjad Iqbal, Tayeb A. Denidni</i>	

A Class-E, Switched-Mode, Non-LTI Electrically-Small Transmit Antenna Design for Overcoming the Fundamental Bandwidth-Efficiency Product Limits	1040
<i>Nader Behdad, Daniel Ludois, Mirhamed Mirmozaafari, Marisa Liben</i>	
Detection Capability of a CNN-Based Imageless Millimeter Wave System for Static Concealed Objects.....	1045
<i>Hadi Mahdipour, Jaime Laviada, Fernando Las-Heras</i>	
Neural Network Based Microwave Tumour Detection Using Breast Pairs.....	1050
<i>Fatimah Eashour, Stephen Pistorius</i>	
A Wideband Dual-Polarized 1-bit Unit Cell for Reconfigurable Intelligent Surface Applications	1055
<i>Jalaledin Tayebpour, Raafat R. Mansour</i>	
Near-Field Bistatic Microwave Imaging with Dynamic Metasurface Antennas	1060
<i>Amir Masoud Molaei, The Viet Hoang, Thomas Fromenteze, Vasiliki Skouropoulou, Rupesh Kumar, Mengran Zhao, Maria Garcia-Fernández, Guillermo Álvarez-Narciandi, Vincent Fusco, Okan Yurduseven</i>	
Development of an Ultrawideband Wire-Grid Polarizer Measurement Standard for Focus Beam System Cross-Polarization Calibration.....	1065
<i>Jeffrey P. Massman, Michael J. Havrilla</i>	
Far-Field Beam Wireless Power Transfer with Combination of Beam Forming and Optical Target Detection	1070
<i>Naoki Shinohara, Bo Yang, Katsumi Kawai</i>	
A Novel MIMO OTA Methodology for UE Performance Testing.....	1074
<i>Thorsten Hertel, Lassi Hentilä, Pekka Kyösti, Jukka Kyröläinen, Huaizhi Yang</i>	
Large, Multi-Faceted Reflectarray with Quasi-Constant Directivity in the V-Band.....	1079
<i>Pablo Camacho, Karim Glatre, Elham Baladi, Mohammad S. Sharawi</i>	
Thin-Film Terahertz Metamaterials Manufactured by Laser Direct Writing.....	1084
<i>Yin-Han Cheng, Kai-Chun Hu, Chih-Han Lin, Yu-Hsiang Cheng</i>	
Robust Tensor Positioning Based on Channel Parameter Estimation Under Spatially Colored Noise.....	1088
<i>Yuzhe Sun, Wei Wang, Haochuan Yue, Yue Lyu</i>	
A Parasitic Element Technique for Deep Null Synthesis and the Application to Received Signal Strength (RSS)-Based Localization.....	1093
<i>Jo Tamura, Hiroyuki Arai</i>	
A Wideband Reflector-Based Mm-Wave/THz Nearfield Line Scanner for Rapidly Sensing Materials in Envelopes	1098
<i>Carey Rappaport, Michael Geraghty</i>	
Interference-Free Transmission for Near-Field Communication with Unlimited Antennas.....	1101
<i>Zhexuan Yu, Xu Han, Jun Zhang, Shi Jin, Michail Matthaiou</i>	
Joint Resource Allocation and Beamforming Design for Secure Short Packet Communication in RIS-Aided MISO Systems: Invited Paper	1106
<i>Wei Gao, Cunxiang Wang, Jie Wang, Yulin Hu</i>	
Dual-Frequency Metasurface Antenna for Earth Science Remote Sensing.....	1111
<i>Kristy Hecht, Nacer Chahat, Goutam Chattopadhyay, Enrica Martini, Mario Junior Mencagli</i>	

A Low-Profile Wide-Scan Magneto-Electric Dipole Antenna for 5G mm-Wave Communications.....	1115
<i>Maximilian Döring, Nico Kästle, Thomas Frey, Felix Matt, Christian Waldschmidt, Tobias Chaloun</i>	
Machine-Learning-Based Optimization for Wideband Metasurface Mosaic Antenna	1120
<i>Peiqin Liu, Xiangrui Yan, Zhi Ning Chen</i>	
Non-Uniform Metamaterial Mushroom Antennas Via a Genuine Multi-Objective Bayesian Optimization Method.....	1123
<i>Yunjia Zeng, Xianming Qing, Michael Yan-Wah Chia</i>	
Nonlinear Distortion Issues Created by Active Reconfigurable Intelligent Surfaces	1128
<i>Nikolaos Kolomvakis, Emil Björnson</i>	
Dielectric Characterization of Adhesives for THz Packaging in WR6.5, WR3.4 and WR2.2 Bands.....	1133
<i>Georg Gramlich, Kilian Speder, Martin Roernhild, Holger Baur, Norbert Fruehauf, Thomas Zwick, Akanksha Bhutani</i>	
Phase Variation of Ingestible Dipole, Loop, and Patch Antennas in Gastrointestinal Tract	1138
<i>Erdem Cil, Denys Nikolayev</i>	
Design and Validation of a Wireless Network for Intra-Train Communications	1142
<i>Jorge Elizalde, Aitor Arriola, Marti Roset, Igor López, Marvin Straub</i>	
Design of Optimized Cylindrical Structural Antenna with Quasi Length Insensitivity Using CMA	1147
<i>Raphaël Notter, Sylvain Collardey, Ala Sharaiha, Loïc Bernard, Philippe Pouliguen, Paul Karmann</i>	
A Modular COTS-Based High-Efficient Sub-THz Channel Sounder and Experimental Validations	1152
<i>Peize Zhang, Cihan Baris Findik, Pekka Kyösti, Veikko Hovinen, Klaus Nevala, Nuutti Tervo, Marko E. Leinonen, Aarno Pärssinen</i>	
Advancements in the Experimental Validation of a Wearable Microwave Imaging System for Brain Stroke Monitoring	1157
<i>D. O. Rodriguez-Duarte, M. Gugliermi, C. Origlia, J. A. Tobon Vasquez, R. Scapatucci, L. Crocco, F. Vipiana</i>	
Excitation Signal Design for THz Channel Sounding and Propagation Parameter Estimation	1160
<i>Jonas Gedschold, Sebastian Semper, Michael Döbereiner, Reiner S. Thomä</i>	
Optimal Morphing Metasurface Lens for Next Generation RF Sensing and Communications	1165
<i>Aakash Bansal, Robert Hewson, Matthew Santer, Will Whittow</i>	
3-D Reflectarray Unit Cell with Wideband Performance and Integrated Sensing Capability	1168
<i>Ángel Palomares-Caballero, Carlos Molero, Pablo Padilla, María García-Vigueras, Raphaël Gillard</i>	
A Pattern-Reconfigurable Water Antenna Based on the Fabry-Perot Cavity.....	1173
<i>Fan Qin, Yifei Liu, Xuan Zhang, Chao Gu</i>	
Link Budget Estimation for Implantable Antennas: from In-Body Coupling to Free-Space Radiation	1177
<i>Mingxiang Gao, Sujith Raman, Zvonimir Šipuš, Anja K. Skrivervik</i>	
Experimental Results for Carbon Nanotube-Sheet Based Microstrip Patch Antenna	1181
<i>Aakash Bansal, Tom Whittaker, Peter Hansen, William G. Whittow</i>	

Wideband Half-Elliptical Ring Slot Array Loaded Leaky Wave Antenna on a Half-Mode Corrugated Substrate Integrated Waveguide	1184
<i>Aakash Bansal</i>	
Experimental Validation of Ray-Tracing and Physical-Optics Model for Geodesic H-Plane Horn Antennas	1187
<i>Mingzheng Chen, Francisco Mesa, Oscar Quevedo-Teruel</i>	
Quad-Band Meandered Implantable Planar Inverted-F Antenna for Wireless Brain Health Monitoring	1191
<i>U. Ali, M. Waqas A. Khan, N. Pournoori, L. Ukkonen, L. Sydänheimo, T. Björninen</i>	
Quantum and Thermal Noise Engineering with Metamaterials.....	1196
<i>Iñigo Liberal</i>	
A Mild Data-Driven Approach Based on a Lebesgue-Space Inversion Procedure for Microwave Imaging Applications.....	1199
<i>Claudio Estatico, Valentina Schenone, Alessandro Fedeli, Andrea Randazzo</i>	
Enabling VNA Based Channel Sounder for 6G Research: Challenges and Solutions.....	1204
<i>Wei Fan, Zhiqiang Yuan, Yejian Lyu, Gert F. Pedersen</i>	
A Single-Layer Quadruple-Band Millimeter-Wave Antenna Using Split-Rings for 5G Application	1209
<i>Nan Hu, Shuang Liu, Jianrui Liu, Lixin Zhao, Wenqing Xie</i>	
A Radial Waveguide Power Divider Inspired Antenna for mmwave IoT Sensing Applications	1212
<i>Md. Abu Sufian, Niamat Hussain, Domin Choi, Yangbae Chun, Qasid Hussain, Nam Kim</i>	
Compact Dual-Band Dual-Polarization Feed for Broadband Communication Satellites	1215
<i>Nelson J. G. Fonseca</i>	
Sub-THz U-Slot Coupled Stacked-Patch Radiating Elements for Dual-Polarized MIMO Array Antennas	1220
<i>Elena Shepeleva, Artem Vilenskiy, Gennadiy Evtyushkin, Anton Lukyanov</i>	
1-Bit RIS Unit Cell with Mechanical Reconfiguration at 28 GHz	1225
<i>Marcos Baena-Molina, Ángel Palomares-Caballero, Ginés Martín-García, Rubén Padial-Allué, Pablo Padilla, Juan F. Valenzuela-Valdés</i>	
Array Scattering Synthesis for Anomalous Deflection Using Passive Aperiodic Loadings	1230
<i>Sravan K. R. Vuyyuru, Risto Valkonen, Do-Hoon Kwon, Sergei A. Tretyakov</i>	
Bifunctional Stubs Enabled MIMO System for Wideband Mobile 5G and Wi-Fi 6E Applications.....	1235
<i>Zhipeng Hu, Quan Xue, Yuqi Wang, Xuekang Liu, Zhiheng Zhou</i>	
Wide-Scan Active Highly Integrated Phased Array Antenna for Tx/Rx Application at K-Band.....	1239
<i>Ahmad Emadeddin, B. L. G. Jonsson</i>	
Impact of the Antenna Topology on the Combination of Full-Duplex Spatial Modulation and RF Energy Harvesting	1243
<i>Hery Zo Andriamanohisoa, Florin-Doru Hutu, Guillaume Villemaud</i>	
Dual-Feed Wideband Folded Waveguide Antenna for Handset Devices.....	1248
<i>Yunfeng Dong, Shen Wang</i>	

Advanced Microwave Radiometry: Refining Sun-Tracking Technique for Atmospheric Attenuation Retrieval and Sun Brightness Temperature Estimation	1253
<i>Giovanni Stazi, Marianna Biscarini, Luca Milani, George Brost</i>	
Spherical Wavefront Near-Field DoA Estimation in THz Automotive Radar	1258
<i>Ahmet M. Elbir, Kumar Vijay Mishra, Symeon Chatzinotas</i>	
Millimeter-Wave and Sub-THz Channel Measurements and Characterization Analysis in a Street Canyon Scenario.....	1263
<i>Amar Al-Jzari, Jiahao Hu, Sana Salous</i>	
An Automated Over-The-Air Radiated Testing Platform for Reconfigurable Intelligent Surface.....	1268
<i>Yifa Li, Fengchun Zhang, Kim Olesen, Zhinong Ying, Gert Frølund Pedersen, Wei Fan</i>	
Reflecting/Absorbing Dual-Mode Textile Metasurface with AI-Driven Parametric Studies	1273
<i>Qiang Hua, Menglin Zhai, Tian Zhang, Rui Pei, Mobayode Akinsolu</i>	
Analysis and Measurement of Key Performance Indicators for MIMO Antennas	1276
<i>Ossian Kynman, Jonatan Lindahl, Jonas Starck, Claes Beckman</i>	
Over-The-Air Measurements for mm-Wave Body-Centric Wireless Communication.....	1281
<i>Jonas Ørnskov Nielsen, Ad C. F. Reniers, A. Bart Smolders</i>	
On the Data Rate Capability of Near-Field Communications Links Based on Bessel Beams.....	1286
<i>Adam Narbudowicz, Mauro Ettorre</i>	
An Efficient Wheel-Integrated Wireless Power Transfer System Based on High-Permittivity Metasurface	1289
<i>Yu Yao, Maziar Nekovee</i>	
Broadband Waveguide Magneto-Electric Dipole Antenna for F-Band Applications	1294
<i>Felix Matt, David Zimmermann, Maximilian Döring, Christian Waldschmidt</i>	
Rain Attenuation at mmwave and Optical Bands from Visibility and Rainfall Intensity Measurements.....	1298
<i>E. Verdugo, L. Luini, C. Riva, L. Da Silva Mello, L. Resteghini, R. Lombardi, A. Milani, R. Nebuloni</i>	
Characterisation of a D-Band Horn Antenna: Comparison of Near-Field and OTA Measurements	1303
<i>Asad Husein, Kimmo Rasilainen, Klaus Nevala, Jani Kallankari, Sami Laukkanen, Veli-Matti Niemitalo, Aarno Pärssinen, Marko E. Leinonen</i>	
Simplified Techniques to Estimate Uncertainties for Antenna Gain Patterns Determined Via Near-Field to Far-Field Transformation	1308
<i>David Ulm, Thomas Kleine-Ostmann</i>	
RIS-Enhanced MIMO Channels in Urban Environments: Experimental Insights	1313
<i>James Rains, Anvar Tukmanov, Qammer Abbasi, Muhammad Imran</i>	
A Wideband Reflectarray with Reconfigurable Polarization and Beam-Scanning by Using Liquid Crystal Delay Line for Millimeter-wave	1318
<i>Peyman Aghabeyki, Shuai Zhang</i>	
Quantum Optimisation of Reconfigurable Surfaces in Complex Propagation Environments.....	1323
<i>Emanuel Colella, Luca Bastianelli, Mohsen Khalily, Franco Moglie, Zhen Peng, Gabriele Gradoni</i>	

A Four-Channel In-Band Full-Duplex (IBFD) Antenna System with Shared Radiation Aperture	1328
<i>Yuenian Chen, Can Ding, He Zhu, Ying Liu, Y. Jay Guo</i>	
Highly Precised and Efficient Robot-Based ESPAR Antenna Measurements in Realistic Environments.....	1332
<i>Mateusz Groth, Kamil Domanski, Krzysztof Nyka, Lukasz Kulas</i>	
Load Impedances Vs Polarizabilities: On the Compactness of Physics-Compliant Models of RIS-Parametrized Wireless Channels	1337
<i>Philipp Del Hougne</i>	
Dielectric Characterization of Biological Tissues at Microwave Frequencies Based on Water Content	1341
<i>Flavia Liporace, Gianluca Ciarleglio, Maria Gabriella Santonicola, Marta Cavagnaro</i>	
Time-Modulated Arrays for Simultaneous Wireless Information and Power Transfer in Near-Field	1346
<i>Alvaro Pendás-Recondo, Rafael González Avestarán, Jesús Alberto López-Fernández</i>	
A New Approach for Line of Sight Prediction with Geometry Analysis and Machine Learning in Diverse Environments	1351
<i>Mostafa Jassim, Thomas Kürner</i>	
Ka-Band Rain Attenuation Derived from a MEO Satellite Constellation	1356
<i>L. Luini, C. Riva, F. Capelletti, A. Comisso, A. Rocha, S. Mota, M. Brás, M. Biscarini, S. Barbieri, F. Consalvi, A. Martellucci</i>	
Characterization of Typical Instantaneous Exposure and Usage Scenarios in the Vicinity of 5G Massive-MIMO Base Stations.....	1361
<i>Anna-Malin Schiffarth, Thanh Tam Julian Ta, Lisa-Marie Schilling, Christian Bornkessel, Matthias Hein, Dirk Heberling</i>	
Array-Fed Transmitarray with Designated Beam Directions and Coverages.....	1366
<i>Xin Guo, Liting Zhu, Wen Wu</i>	
Analysis of Propagation Models for Frequency Coordination Between 5G Base Stations and Satellite Earth Stations at FR1	1370
<i>Ahmad Hamada, Thomas Kürner</i>	
Analysis of a Small LOFAR Low-Band Test Array Using a Sky Map, Simulated Embedded Element Patterns and Measured LNA-Impedances	1375
<i>M. J. Arts, M. Ruiter, P. Kruger, D. Prinsloo, M. J. Bentum, A. B. Smolders</i>	
HRPE-Enhanced AI-Based 5G Indoor Localization in Presence of Specular and Dense Multipaths	1380
<i>Yuchen Shi, Xiaoxiao Yang, Yuying Sun, José Rodríguez-Piñeiro, Xueming Hong, Tomás Domínguez-Bolaño, Xuefeng Yin</i>	
Optimization of the TRP Evaluation in Anechoic-Reverberation Hybrid Chamber	1385
<i>P. S. Krasov, O. A. Iupikov, R. Maaskant, J. Friden, M. V. Ivashina</i>	
Beam Coverage Model of Ultra-Massive MIMO Communication Systems for Intelligent Transportation.....	1390
<i>Peng Chen, Xiaoyu Huang, Zhe Chen, Wei Wang</i>	
Antenna Pattern Tracking Algorithm for Low Terahertz Communications.....	1394
<i>Lorenz H. W. Löser, Tobias Doeker, Thomas Kürner</i>	

Uncertainties in the Estimation of the Gain of a Standard Gain Horn in the Frequency Range of 90 GHz to 140 GHz.....	1399
<i>Purnima Yadav, Laurens A. Bronckers, A. Bart Smolders, Ad C. F. Reniers</i>	
Use of Model Based Systems Engineering and Development in the Design of a Commercial Nose-Radome Test System Employing a Multi-Axis Cobot.....	1404
<i>S. F. Gregson, D. Lewis, P. Schluper, G. E. Hindman</i>	
AttentionRNN: Novel Propagation Channel Time-Domain State Predictor.....	1409
<i>Congcong Wang, Pengqi Zhu, José Rodríguez-Piñero, Xuefeng Yin</i>	
Complex Permittivity Extraction of Typical Wooden Furniture Materials Based on Multi-Objective Particle Swarm Optimization Over 40-50 GHz.....	1414
<i>Pan Li, Yu Shao, Ran Xu</i>	
Monitoring Eye States Based on Transparent and Flexible Antenna in WBAN.....	1419
<i>Yu Yang, Yu Shao, Yu Yao, Yanyang Zhang</i>	
A Millimeter-Wave Binary Reconfigurable Intelligent Surface on a Low-Cost FR4 Substrate	1424
<i>Chen-Yi Chang, Hsi-Tseng Chou</i>	
Enhancing THz Antenna Characterization Precision in WR-1.5 Band Using Vacuum Waveguide Flange.....	1428
<i>Marius Kretschmann, Thomas Zwick, Akanksha Bhutani</i>	
Generation of Highly-Pure OAM Beams with Simple Slotted SIW Antenna Array	1432
<i>Yuvraj B. Dhanade, Amalendu Patnaik</i>	
Localization of a Nasogastric Feeding Tube Using High-Frequency Harmonic Radar - A Feasibility Study.....	1435
<i>Lieke A. M. Geubbels, Rob M. C. Mestrom, Ad C. F. Reniers</i>	
Long-Term Network-based Assessment of the Actual Output Power of Base Stations in a 5G Network.....	1440
<i>Paramananda Joshi, Davide Colombi, Bo Xu, Carla Di Paola, Jens Eilers Bischoff, Stanislav Stefanov Zhekov, Christer Törnevik</i>	
Metasurface-Based Bessel-Beam Launcher with 100λ Non-Diffractive Range.....	1445
<i>Konstantinos D. Paschaloudis, Ravel C. M. Pimenta, David González-Oveiro, Gabriel Soriano, Mauro Ettore</i>	
Shorted Stacked Patch Array for Photonic Beam Steering at mm-Waves	1448
<i>Charikleia Tzimiragka, Ronan Sauleau, Mehdi Alouini, Cyril Paranthoen, David González-Ovejero</i>	
Low-Profile Multibeam Beam-Scanning Antenna for Vehicular Radar Systems	1452
<i>Siyuan Lei, Gao Wei, Kangkang Han, Tiancheng Qiu, Min Wang</i>	
An Electromagnetic Metasurface for Impedance Matching in Microwave Biomedical Applications.....	1457
<i>Alessandro Dellabate, Danilo Brizi, Tarakeswar Shaw, Mauricio Perez, Robin Augustine, Agostino Monorchio</i>	
Design of a Conformal and Low-Frequency Metasurface for Magnetic Field Shielding in Wireless Power Transfer Systems	1461
<i>Valeria Lazzoni, Alessandro Luigi Dellabate, Danilo Brizi, Agostino Monorchio</i>	

Design of a Dual-Circular Polarized Antenna Array for Dual-Band Aperture-Shared Applications.....	1464
<i>Wei-Lian Zhu, Shi-Gang Zhou</i>	
Design of an L-S-Band Frequency Selective Resorber for Dual-Band Absorption and In-Band Transmission.....	1469
<i>Francesca Pascarella, Danilo Brizi, Agostino Monorchio</i>	
MR/Microwave Tomography Integrated Breast Cancer Imaging.....	1473
<i>Paul M. Meaney, Zamzam Kordiboroujeni, Grace Player, Amir Golnabi, Xiaoyu Yang, Thomas Eastlake, Keith D. Paulsen</i>	
Preliminary Investigation of an Innovative RF Sensor for Deformation and Failure Evaluation in Composite Materials.....	1477
<i>Angelica Masi, Danilo Brizi, Eliana Canicattì, Guido Nenna, Agostino Monorchio</i>	
Real-System Variational Quantum Eigensolver for Electromagnetic Waveguides: A Benchmark Study.....	1482
<i>Emanuel Colella, Spencer Beloin, Luca Bastianelli, Valter Mariani Primiani, Franco Moglie, Gabriele Gradoni</i>	
Fabry-Perot Antenna with High-Permittivity Grounded Walls for Side Lobe Level Reduction.....	1486
<i>Edoardo Giusti, Danilo Brizi, Agostino Monorchio</i>	
Reconstruction of the Far-Field Pattern Radiated by an Elongated Antenna Measured Over a Perfectly Electric Conducting Ground Plane in a Spherical Spiral Near-Field Facility	1490
<i>F. D. Agostino, F. Ferrara, C. Gennarelli, R. Guerriero, M. Migliozzi</i>	
Anisotropic Circularly Polarising Graded Index Lenses Enabling High Gain CP Antennas.....	1495
<i>Thomas Whittaker, Evangelos Vassos, Alexandros Feresidis, William. G. Whittow</i>	
Recent Advances in Multiscale-Multiphysics Inverse Scattering.....	1499
<i>Marco Salucci, Lorenzo Poli, Samantha Lusa, Zhichao Lin, Maokun Li, Andrea Massa</i>	
Concentration Detection of Sodium Chloride and Glucose Solutions Using an IDC-Based Microwave Sensor with Eliminating Environmental Effects	1503
<i>Haneul Woo, Hee-Jo Lee, Jong-Gwan Yook</i>	
A Deep Learning Based Surface Current Generation Method for Scattering Modeling at Terahertz Band	1506
<i>Zhao Zhang, Danping He, Ke Guan, Ben Chen, Jianwu Dou, Wei E. I. Sha, Zhangdui Zhong</i>	
An Innovative Metasurface Polarizer Working in 5G Frequency Bands.....	1511
<i>Abdulkadir Cildir, Farooq A. Tahir, Muhammad Imran, Qammer H. Abbasi</i>	
Analysis of Channel Characteristics for FMCW Millimeter-Wave Radar in Traffic Scenarios	1516
<i>Biaobiao Ji, Bingjie Xue, Peng Chen, Wei Wang</i>	
Optimized Design Parameters for a Flux-Driven SNAIL-Based Traveling-Wave Parametric Amplifier	1520
<i>Michael Haider, Yongjie Yuan, Christian Jirauschek</i>	
Reducing Mutual Coupling in 2x2 MIMO Circularly Polarized Patch Antenna Array Using Reflecting Polarization Conversion Metasurface	1525
<i>Muhammad Usman Raza, Sen Yan</i>	
Joint Wide Illumination and Null Insertion Design in RIS-Assisted System	1529
<i>Xinyi Lin, Ziyi Zhou, Lei Zhang, Anvar Tukmanov, Qammer Abbasi, Muhammad Ali Imran</i>	

Propagation Study of Vision-Based RIS Beam Tracking for mmwave Communications	1533
<i>Juan Sanchez, Xuesong Cai, Fredrik Tufvesson</i>	
A Brief Analysis of the Latest Research Progress and Future Direction of Low-Frequency Transmitting Antenna	1538
<i>Chao Wu, Jinghui Qiu, Shuang Qiu, Vasyl Molebny</i>	
Assessing Performance of Transparent Conductive Films for Microwave Industrial Applications	1543
<i>Anastasios Paraskevopoulos, Dimitrios C. Tzarouchis, Maria Koutsoupidou, Kostis Dovelos, Panagiotis Kosmas, Shimul Saha, Efthymios Kallos, Ragip Pala, George Palikaras, Fotis Lazarakis, Antonis A. Alexandridis</i>	
Direct Clustering and Multi-Path Component Identification on THz Channel Measurements in a Factory Environment	1546
<i>Mengfan Wu, Tommaso Zugno, Mate Boban, Falko Dressler</i>	
MIMO Array Decoupling with SSR Structure in Joint Communication and Sensing System	1551
<i>Zizhen Zhang, Zhirun Hu</i>	
Dual-Polarized Diffraction Measurements and Modeling at D-Band Frequencies	1555
<i>Cihan Baris Findik, Peize Zhang, Veikko Hovinen, Marko E. Leinonen, Aarno Pärssinen, Pekka Kyösti</i>	
Nonreciprocal Phase-Shifting in Linear Magnet-Free Reconfigurable Temporal Loops	1560
<i>Sajjad Taravati</i>	
Dual-Linearly Polarized Pillbox Beamformer in Hybrid CNC-PCB Technologies at W-Band.....	1565
<i>Thi-Kim-Ngan Nguyen, Ahmed D. Alwakil, Mauro Ettore, David González-Ovejero, Ronan Sauleau</i>	
Exploring PLA/Flax Substrates for Antenna Applications: Assessing Moisture, Temperature and Dielectric Constant Homogeneity	1569
<i>Vincent Grennerat, Georges Zakka El Nashef, Ahmad Sabra, Pascal Xavier, Thierry Lacrevez, Nicolas Corrao, Haokai Liang, Géczy Attila, Nicolas Chevalier</i>	
Model Order Reduction for Parametric Dependence of Q-Factor Bounds in IoT Applications.....	1574
<i>B. L. G. Jonsson</i>	
Feasibility of High Throughput Wireless Communication Above 100 GHz in Indoor Scenarios	1578
<i>Christina Larsson, Bengt-Erik Olsson, Henrik Asplund</i>	
Study of Environmentally-Friendly Radomes Using Cork-Rubber Composites for 5G Backhaul Links at E-band	1583
<i>João M. Felício, Eduardo Motta-Cruz, Jorge R. Costa, Sérgio A. Matos, Carlos A. Fernandes</i>	
All-Metal Perfectly-Matched Metamaterials	1587
<i>Jorge Ruiz-García, Anthony Grbic</i>	
Surface Partial Differential Equations and Its Applications to Scattering Problems	1590
<i>Felipe Vico, Miguel Ferrando-Bataller, Eva Antonino-Daviu, Marta Cabedo-Fabres</i>	
Low-Profiled Wideband Dual-Polarized Conformal Antenna Array	1595
<i>Zhan Chen, Wei Hu, Yuchen Gao, Lehu Wen, Qi Luo</i>	
Validation of Ray-Tracing Simulated Channels for Massive MIMO Systems at Millimeter-wave Bands.....	1600
<i>Jingyun Di, Zhiqiang Yuan, Yejian Lyu, Fengchun Zhang, Wei Fan</i>	

Fine Tuning an AI-Based Indoor Radio Propagation Model with Crowd-Sourced Data.....	1605
<i>Cheick Tidiani Cissé, Valéry Guillet, Oumaya Baala, François Spies, Alexandre Caminada</i>	
Synthesis of Circularly Polarized Microstrip Planar Array with Cross-Polarization Suppression	1610
<i>Gabriel P. Paulena, Juner M. Vieira, Edson R. Schlosser, Marcos V. T. Heckler</i>	
Microwave Imaging for Monitoring Bone Healing Using Magnetic Scaffolds: An Initial Analysis.....	1615
<i>S. Zappia, M. B. Lodi, R. Palmeri, N. Curreli, I. Catapano, L. Crocco, A. Fanti, R. Scapatucci</i>	
Exploiting Near-Field Antenna Detuning in Collision Avoidance Systems for RFID-Equipped Robots.....	1619
<i>Glauco Cecchi, Andrea Motroni, Paolo Nepa</i>	
Modeling of Quasi-Optical Systems and Measurements with a Cobot in the J-Band	1624
<i>Gregory Gaudin, Daniel Bourreau, Clément Henry, Alain Peden</i>	
Glide-Symmetric SIH Unit Cells Implemented in Parallel-Plate Waveguides at mmwaves	1629
<i>Andrés Biedma-Pérez, Cleofás Segura-Gómez, Ángel Palomares-Caballero, Juan Francisco Valenzuela-Valdés, Pablo Padilla</i>	
On Efficient Representations of Frequency Dependent Far-Field Information for Array Antennas.....	1633
<i>B. L. G. Jonsson, Harald Hultin</i>	
SARFID for Fine-Scale Localization of Passive Backscattering Devices at 2.4 GHz ISM Band.....	1638
<i>Andrea Motroni, Glauco Cecchi, Alice Buffi, Paolo Nepa</i>	
Miniaturised Magnetic Antenna for Wireless Implanted Medical Device.....	1643
<i>Melusine Pigeon, John Barton</i>	
Liquid Metal Reconfigurable Phased Array Antenna	1648
<i>Shaker Alkaraki, Quan Wei Lin, Fuad Erman, Syeda Fizzah Jilani, Zhengpeng Wang, Hang Wong, James R. Kelly</i>	
Multifunction Over-The-Horizon Radar for Space Domain Awareness	1653
<i>Simon Henault, Kyra Czarnowske, Yahia M. M. Antar</i>	
Multistatic OFDM Radar Fusion of MUSIC-Based Angle Estimation	1658
<i>Martin Willame, Hasan Can Yildirim, Laurent Storrer, François Horlin, Jérôme Louveaux</i>	
Ultra-Low-Loss Millimeter Wave Beam Scanning Antenna Using Piezoelectric Actuation.....	1663
<i>James Churm, Muhammad Rabbani, Ioannis Gerafentis, Alexandros Feresidis</i>	
Shaping the Sub-Reflector of a Ring Focus Antenna for Tailored Beam Width Applications.....	1667
<i>Giuseppe Dell'Aere, Christophe Mellé, Pascal Cousin, Nelson J. G. Fonseca, Ronan Sauleau, David González-Ovejero, Mauro Ettore</i>	
Radiation Resistance Enhancement Techniques for Ultracompact Half-Wavelength Helical Omnidirectional Circularly Polarized Antennas	1672
<i>Huacheng Li, Wei Lin, Zhenxin Hu</i>	
A Linearly Polarized Wideband Antenna with a Stable Omnidirectional Radiation Pattern	1676
<i>Vu Hong Tien, Niamien Constant</i>	
Uncertainty Analysis of Linear Multi-Probe Array Systems for Fast Antenna Measurements.....	1681
<i>F. Saccardi, A. Giacomini, N. Gross, T. Blin, P. O. Iversen, R. Braun, L. Shmidov, M. He, C. Chen, X. Bland, L. J. Foged</i>	

Sub-7 GHz Circularly Polarized Dielectric Resonator Antenna Array for Full-Duplex Applications.....	1686
<i>Shadi Danesh, Mohammad Abedian, Ali Araghi, Pei Xiao, Mohsen Khalily</i>	
Study of the Frequency Dispersion of 3D-Printed Dielectric Crystals for Dielectric Resonator Antenna Applications	1691
<i>Gaëtan Antoine, Romain Pascaud, Christophe Morlaas, Alexandre Chabory, Vincent Laquerbe, Gautier Mazingue</i>	
A Numerical Analysis of Microwave Hyperthermia of Deep-Seated Tumors Using Magneto- Dielectric Implants	1696
<i>Matteo B. Lodi</i>	
Characterization of a Metamaterial-Enabled Waveguide Diplexer for Ka-Band Satellite Communication Systems	1701
<i>Robin F. Bonny, Mehri Ziaee Bideskan, Romain Fleury, Maliheh Khatibi Moghaddam, Mostafa Khosrownejad</i>	
Self-Interference Suppression for SatCom Active Antenna Arrays Through Joint Transmit and Receive Beamforming	1705
<i>Teanette Van Der Spuy, Rob Maaskant, Marianna Ivashina, Lukas Nyström, Thomas Eriksson</i>	
Self-Isolated MIMO Antenna Using SIW Cavity Antenna for Dual-Band (28, 38 GHz) Applications.....	1710
<i>Busineni Mahesh Kumar, Nancy Modi, Jayanta Mukherjee</i>	
Planar Near-Field Phaseless Measurements Using Multi-Probe Arrays.....	1715
<i>Fernando Rodríguez Varela, Manuel Sierra Castañer, Francesco Saccardi, Andrea Giacomini, Lars Foged</i>	
The Novel Method for Deployable Parabolic Reflector Based on Uchiwa Origami.....	1720
<i>Amit Kumar Baghel, Vinicius Uchoa Oliveira, Pedro Pinho, Nuno Borges Carvalho</i>	
Multibeam Phased Array with Reduced Transmit and Receive Modules.....	1724
<i>Francesco Alessio Dicandia, Simone Genovesi</i>	
Sunflower Array of Infinitesimal Dipoles for Constrained Antenna Modeling.....	1728
<i>Nehir Berk Onat, Alexander Yarovoy, Yanki Aslan</i>	
Circularly Polarized Transmitarray Design Using Characteristic Modes Theory.....	1733
<i>Francesco Alessio Dicandia, Simone Genovesi</i>	
Amplitude-Tapered Half-Mode Gap Waveguide Distribution Network for Flat Panel Antennas	1738
<i>Adrián Castellá-Montoro, Miguel Ferrando-Rocher, Jose I. Herranz-Herruzo, Alejandro Valero-Nogueira</i>	
Active Antenna Design for Lunar-Based Detection of Global 21cm-Signals from the Dark Ages	1742
<i>J. C. F. Zandboer, D. S. Prinsloo, U. Johannsen, M. J. Bentum</i>	
Design of a Wideband Dual-Polarized Stacked Antenna Array for SATCOM Applications.....	1747
<i>Davide Guarnera, Santi C. Pavone, Ottavio Crisafulli, Loreto Di Donato, Andrea F. Morabito, Tommaso Isernia, Gino Sorbello</i>	
A Cascaded Resonator Decoupling Network for Two Filtering Antennas with Adjacent Operating Bands.....	1751
<i>Jianfeng Qian, Benito Sanz Izquierdo, Steven Gao, Hanyang Wang</i>	

Quiet-Zone Profiling in a mmwave Spherical Anechoic Chamber: An Evaluation Approach	1755
<i>Naila Rubab, Laurens A. Bronckers, A. J. Van Den Biggelaar, A. Bart Smolders, Ad C. F. Reniers</i>	
A High Efficiency and Ultra-Wideband Rectenna for RF Energy Harvesting Application	1760
<i>Meghdad Khodaei, Halim Boutayeb, Larbi Talbi</i>	
Frequency Reconfigurable Flexible Printed Antenna Based on Non-Volatile RF Switches for Wearable Applications	1764
<i>Yize Li, Xiaoyu Xiao, Zirui Zhang, Zhirun Hu</i>	
Design of a Concentric Circular Holographic Metasurface Using Hexagonal Anisotropic Unit-Cell for Wireless Communications	1768
<i>Swarnadipto Ghosh, Dipankar Saha, Rishabh Aalayathil, Aakash Bansal, Will Whittow</i>	
Synthesis of Flat-Top Beams Based on Modified Chebyshev Polynomials	1772
<i>Goran Molnar, Marko Matijašćic</i>	
A Varactor-Based Reconfigurable Intelligent Surface Concept for 5G/6G mm-Wave Applications	1777
<i>Yuqing Zhu, Artem R. Vilenskiy, Oleg A. Iupikov, Pavlo S. Krasov, Thomas Emanuelsson, Gregor Lasser, Marianna V. Ivashina</i>	
Beam Focusing with a Conformal Leaky-Wave Antenna Described by a Spline Curve	1782
<i>Michael Dittman, John Papapolymerou, Mauro Ettore</i>	
Design Recommendations for Minimal Antenna Mutual Coupling Using Current Optimization	1785
<i>Hannes Bartle, Jakub Liška, Miloslav Capek, Anja K. Skrivervik, Lukas Jelinek</i>	
Advancements in Broadband Electromagnetic Sensing for Food Quality Control	1790
<i>S. Zappia, S. Zumbo, N. Zeni, A. Buzzin, A. Mastrandrea, M. Ricci, I. Catapano, R. Scapatucci, N. Pasquino, N. Lovecchio, J. A. Tobon Vasquez, G. Bellizzi, M. Cavagnaro, F. Vipiana, L. Crocco</i>	
Characterization and Comparison of Formulas for Optimizing Broadside Radiation in a 2-D Leaky-Wave Antenna	1793
<i>Walter Fuscaldo, David R. Jackson, Alessandro Galli</i>	
Recent Advances on Multi-Scale Wave Manipulation Through Reconfigurable Intelligent Surfaces	1796
<i>Giacomo Oliveri, M. Salucci, Andrea Massa</i>	
Automated Design of Antennas Using AI Techniques: A Review of Contemporary Methods and Applications	1799
<i>Mobayode O. Akinsolu, Qiang Hua, Bo Liu</i>	
Impact of 6D Mobility on Doppler Characteristics of UAV-To-Vehicle Channels	1803
<i>Junwei Bao, Zhuangzhuang Cui, Yang Miao, Qiuming Zhu, Boyu Hua, Kai Mao, Haoran Ni</i>	
On the Design of Static Passive Skins for Next Generation Fixed Wireless Access Applications	1808
<i>Giacomo Oliveri, Marco Salucci, Andrea Massa</i>	
Highly Reflective, Low-Loss, Homogenized Fishnet Metasurfaces at Terahertz: Design and Experiment	1810
<i>Walter Fuscaldo, Francesco Maita, Luca Maiolo, Romeo Beccherelli, Dimitrios C. Zografopoulos</i>	
A Quantum Optimization Method for Antenna Array Thinning	1813
<i>Luca Tosi, Paolo Rocca</i>	

Physics-Informed Regularization for Microwave Imaging in Biomedical Applications	1817
<i>Brendon C. Besler, Elise C. Fear</i>	
Compact Dual-Band Crossover with Enhanced Band Ratio Using Interdigital Capacitor for 5G Applications.....	1822
<i>Abdulkadir Bello Shallah, Farid Zubir, Mohamad Kamal A. Rahim, Osman Ayop</i>	
Target Classification Through ISAR for Autonomous Vehicles Based on Federated Learning.....	1826
<i>Vincenzo Violi, Pierpaolo Usai, Danilo Brizi, Gurtaj Singh, Marco Fisichella, Tommaso Isernia, Agostino Monorchio</i>	
Path Loss Modeling for Air-To-Ground Channels in a Suburban Environment.....	1831
<i>Sander Coene, Achiel Colpaert, Emmeric Tanghe, David Plets, Zhuangzhuang Cui, Sofie Pollin, Wout Joseph</i>	
A Wideband Half-Circle Metasurface Augmented Luneburg Lens for Millimeter-Wave Applications	1836
<i>Bader Alali, Dmitry Zelenchuk, Muhammad Ali Babar Abbasi, Irina Munina</i>	
Wideband Dual-Polarized 1-Bit Unit-Cell Design for mmwave Reconfigurable Intelligent Surface	1841
<i>Gabriel G. Machado, M. Ali Babar Abbasi, Adrian McKernan, Chao Gu, Dmitry Zelenchuk</i>	
Direction-Of-Arrival Estimation by a Programmable Metasurface.....	1845
<i>Nawel Meftah, Badreddine Ratni, Mohammed Nabil El Korso, Shah Nawaz Burokur</i>	
Development of a Circuit-Type Multiple-Agile Beamforming and Interference Mitigation Network.....	1848
<i>Yanki Aslan, Antoine Roederer, Nelson J. G. Fonseca, Piero Angeletti, Alexander Yarovoy</i>	
Embedded Graded Index Lens for Mitigating the Phase Error of an SIW Horn Lens Antenna	1853
<i>Hossein Eskandari, William Whittow</i>	
Evaluating System Design in Breast Microwave Sensing: Data and Image Quality in Multiple Systems.....	1856
<i>Tyson Reimer, Fatimah Eashour, Gabrielle Fontaine, Jordan Krenkevich, Stephen Pistorius</i>	
Annual Statistics from 5 Years of 1-Minute Rainfall Rate Measurements at a Specific Site in Bolivia	1861
<i>Gustavo A. Siles, Noelia Ayllon</i>	
Advanced Post-Processing Technique to Evaluate Specific Absorption Rate (SAR) for a Standard Dipole Antenna.....	1866
<i>Shoaib Anwar, Lucia Scialacqua, Aurelien Lelievre, Mohamad Mantash, Jerome Luc, Nicolas Gross, Francesco Saccardi, Lars Jacob Foged</i>	
Flexible Antenna with Microfluidics for the Quantification of Liquid Micro-Volumes.....	1870
<i>Giulio Maria Bianco, Gaetano Marrocco</i>	
Feed Assembly Development for INCUS.....	1875
<i>Gaurangi Gupta, Paolo Focardi</i>	
Low-Cost Coaxial Slot Array Antenna for E-Band Automotive Corner Radar Applications Based on Gap Waveguide MLW Technology.....	1880
<i>Juan-Luis Albadalejo Lijarcio, Abbas Vosoogh, Carlo Bencivenni, Ashraf Uz Zaman</i>	
Beam Steering Range Enhancement of Bifocal Reflectarray Using Irregular Distribution of Meta-Atoms	1885
<i>Mustafa K. Taher Al-Nuaimi, William G. Whittow, Guan-Long Huang, Rui-Sen Chen</i>	

SINTEC Comparative Body-Centric Communication Study: Bluetooth Vs Fat-Intrabody Communication	1890
<i>Mauricio D Perez, Bappaditya Mandal, Pramod Rangaiah, Laya Joseph, Robin Augustine</i>	
An IQ Modulator-Based RF Phase Shifter	1895
<i>Xu Qin, Zhiwei Zhang, Chao Gu, Adrian McKernan</i>	
Frequency Domain Channel Characteristics in an Outdoor-To-Indoor Environment at 6 and 37 GHz	1900
<i>Ruth Gebremedhin, Ruoyu Sun, Dorin Viorel, Wilhelm Keusgen</i>	
Generation of Narrow Divergence Angle OAM Beams for mmwave Communication Links Using Metasurface	1905
<i>Mustafa K. Taher Al-Nuaimi, William G. Whittow, Guan-Long Huang, Rui-Sen Chen</i>	
Electromagnetic Beerline Cleaning Using Radio Frequency Signals.....	1910
<i>Maksim Kuznetsov, Symon K. Podilchak, Louis Arnold, David Arnold</i>	
Integrated Low-Loss mmwave On-Chip Arrays.....	1913
<i>Seung Yoon Lee, Thomas G. Williamson, David L. West, Sree Adinarayana Dasari, Walter Disharoon, Nima Ghalichechian</i>	
Predicting Rain Attenuation at D Band for 6G Backhaul Link Design: A Frequency Scaling Approach	1918
<i>F. Capelletti, G. Roveda, R. Nebuloni, L. Luini</i>	
Electromagnetics-Based RIS Channel Model with Near-Field Accuracy Improvement	1923
<i>Ondrej Franek</i>	
Curving THz Beams in the Near Field: A Framework to Compute Link Budgets	1928
<i>Hichem Guerboukha, Bin Zhao, Zhaoji Fang, Edward Knightly, Daniel M. Mittleman</i>	
Millimeter Wave Vector Measurement System Using Low Frequency Band Oscilloscope	1933
<i>Satoru Kurokawa, Michitaka Ameya, Masanobu Hirose</i>	
Low-Profile Electrically Small Antenna with Pattern and Polarization Diversity	1937
<i>Abel Zandamela, Nicola Marchetti, Adam Narbudowicz</i>	
Sub-THz Spatially Modulated Beam Splitting Reflectors for Potential RIS Implementations	1942
<i>Duy Tung Phan, Jaakko Palosaari, Di Kong, Tuomo Siponkoski, Sami Myllymäki, Marko E. Leinonen, Aarno Pärssinen, Jari Juuti, Ping Jack Soh</i>	
Bandwidth-Enhanced Compact Beamsteering Antenna for IoT Platforms	1946
<i>Abel Zandamela, Nicola Marchetti, Adam Narbudowicz</i>	
Reduced-Order Maximum Determinant Sampling Grids by Acquisition of Additional Arbitrary Sampling Points on an Optimized Path	1951
<i>H. Jansen, R. Moch, D. Heberling</i>	
Validating Properties of RIS Channel Models with Prototypical Measurements	1956
<i>Kevin Weinberger, Simon Tewes, Aydin Sezgin</i>	
The Diminished Edge Diffraction Effect Bull's Eye Antenna	1961
<i>Christineh Shahbazian, Ahmed Kishk</i>	

Antenna Coupling Evaluation in Arrays and Complex Structures Using Measured Sources and Simulations.....	1965
<i>Lars Jacob Foged, Lucia Scialacqua, Giorgia Venturini, Marlize Schoeman, Daniel Le Roux, C. J. Reddy</i>	
Open Stopband Suppression of Periodic Leaky-Wave Antenna Based on Theory of Small Reflections.....	1969
<i>Feiyu Ge, Shunli Li, Hongxin Zhao, Xiaoxin Yin</i>	
Multibeam Antenna for Wide-Angle 96-Beam Coverage at Ka-Band Using a Multifocal Transmit-Array.....	1974
<i>Sérgio Matos, João Felício, Jorge Costa, Carlos Fernandes, Nelson J. G. Fonseca</i>	
Mechanical Vibrations on a Deployable Nanosatellite Antenna: SAR Performance Analysis	1978
<i>Andrew C. M. Austin, Timothy Pelham, Simone Mencarelli, Annalisa Tresoldi, Mohammed Dabboor, Guglielmo Aglietti, Michael J. Neve</i>	
Input Impedance of Radiation Efficiency Deterioration State.....	1983
<i>Kyoichi Igusa, Hirokazu Sawada, Amane Miura, Hiroyuki Tsuji</i>	
Multi-Bit Wideband Transmitarray Aperture with Independent Phase and Amplitude Control for High Gain with Low Sidelobe Mm-Wave Applications	1988
<i>Noureddine Melouki, Fahad Ahmed, Hassan Nasser, Peyman Pourmohammadi, Amjad Iqbal, Tayeb A. Denidni</i>	
Challenges and Opportunities of Amplified Information Metasurfaces for Simultaneous Wireless Communications and Power Transfers.....	1992
<i>Jiaqi Han, Xin Wang, Kai Zhou, Long Li, Tie Jun Cui</i>	
Over-The-Air Testing Environments with Spatial-Directional Selectivity for Characterizing Wireless Devices and Systems	1996
<i>Andrés Alayón Glazunov</i>	
A Wideband Filtering Linear-To-Circular Polarization Converter for Ka-Band Satellite Communication	2001
<i>Xin Ran Li, Hong Bin Wang, Ya Fei Wu, Yu Jian Cheng</i>	
Time-Varying Channel Measurement and Analysis at 105 GHz in an Indoor Factory.....	2005
<i>Yufeng Qin, Pan Tang, Lei Tian, Jiaxin Lin, Zhaowei Chang, Peijie Liu, Jianhua Zhang, Tao Jiang</i>	
Design of Dual-Band CPW Rectenna for Wireless Power Transmission	2010
<i>Zeyu Liu, Jingchen Wang, Eng Gee Lim, Mark Leach, Zhao Wang, Zhenzhen Jiang, Yi Huang</i>	
Characterisation of Thin Glass-Fibre Substrates for Deployable SAR Antennas.....	2014
<i>Simone Mencarelli, Annalisa Tresoldi, Andrew C. M. Austin, Michael J. Neve, Guglielmo Aglietti</i>	
Time-Modulated Metasurface-Based System for the Generation of False Radar Targets	2019
<i>X. Fang, M. Li, S. Li, D. Ramaccia, A. Toscano, F. Bilotti, D. Ding</i>	
Mm-Wave Monopulse Radar System for Detecting Space Debris in Satellite Exploration Missions.....	2022
<i>Farzad Karami, Halim Boutayeb, Larbi Talbi</i>	
Double-Directional Angle-Resolved Wideband Channel Measurements and Path Loss Characterization in Corridor at 300 GHz.....	2025
<i>Riku Takahashi, Ghosh Anirban, Minseok Kim</i>	

Addressing PIM Challenges in Radio Base Stations: Field Issues and Testing Methods for Large-Scale Deployments.....	2030
<i>Queenie Zhang, Chuanting Liu, Ingolf Meier, Noor Choudhury, Lei Deng, Xiang Yue, Bo Xu, Yu Yang, Frieso Damm, Hao An, Nezahat Gunenc Tuncel, Martin Haun, Xiaoying Jiang</i>	
Information Metasurface for Simultaneous Wave Manipulations and Signal Modulations	2035
<i>Qun Yan Zhou, Shengguo Meng, Qiao Chen, Jun Yan Dai, Qiang Cheng, Tie Jun Cui</i>	
Effects of Bumper Integration on Low-, Mid-, and High-Resolution Imaging Radars	2039
<i>Dominik Schwarz, Matthias Linder, Ron Riekenbrauck, Robin Bord, Christian Waldschmidt</i>	
Industrial Design Validation for a Plane Wave Generator at 28GHz.....	2044
<i>Shoaib Anwar, Andrea Giacomini, Francesco Saccardi, Francesco Scatonne, Evgueni Kaverine, Nicolas Gross, Per Iversen, Lars Jacob Foged</i>	
Analysis of 5G Channel Characteristics Based on Ray Tracing for the Straight Tunnel of High Speed Railway.....	2048
<i>Lei Liu, Bo Ai, Yuanyuan Qiao</i>	
Use of Ecofriendly Geopolymer Ceramics in Antenna Design and Microwave Applications	2052
<i>G. Silva, A. Gharzouni, O. Tantot, N. Feix, E. Martinod, S. Rossignol</i>	
User and Passive Beam Scheduling Scheme for Liquid Crystal IRS-Assisted mmwave Communications.....	2056
<i>Keiji Yoshikawa, Takuya Ohto, Takahiro Hayashi</i>	
A Completely Overlapped Ku- And Ka-band Dual-Polarized Phased Array for Simultaneous Terrestrial and Satellite Communications.....	2061
<i>Bumhyun Kim, Wonbin Hong</i>	
Computer Vision Enabled Sub-THz Radio Channel Characterization of Dynamic Objects	2066
<i>Ankit Regmi, Praneeth Susarla, Peize Zhang, Nuutti Tervo, Miguel Bordallo Lopez, Olli Silven, Pekka Kvösti, Marko E. Leinonen, Aarno Pärssinen</i>	
Modal Analysis of Thermal Noise from Lossy Dielectric Medium.....	2071
<i>Jean Cavillot, Denis Tihon, Eloy De Lera Acedo, Christophe Craeye</i>	
KRISS Robot-Based Antenna Measurement System	2075
<i>Jae-Yong Kwon, Woohyun Jung, Chihyun Cho</i>	
Time-Modulated Metasurface for Harmonic Signals Frequency Conversion	2079
<i>Tanguy Lopez, Thomas Lepetit, Badreddine Ratni, Shah Nawaz Burokur</i>	
Development of a Site-Specific Building Entry Loss Model for High-Rise Buildings	2083
<i>Shoma Tanaka, Akihiro Sato, Sho Kimura, Ho-Yu Lin, Hideki Omote</i>	
Reproducibility Studies of Instantaneous and 6-Minute Average Exposure Measurements Around 5G Massive-MIMO Base Stations.....	2088
<i>Christian Bornkessel, Alena Pikushina, Lisa-Marie Schilling, Tobias Struck, Matthias A. Hein</i>	
Sub- THz Propagation Measurement and Analysis in Indoor Corridor Environment at 159 GHz.....	2093
<i>Juyul Lee, Jae-Joon Park, Heon Kook Kwon, Byung Su Kang, Myung-Don Kim</i>	
Simultaneously Dual-Polarization Convertible Sub- THz Reconfigurable Intelligent Surface Enabled by Through-Quartz VIAs.....	2098
<i>Byeongju Moon, Seungwoo Bang, Hogeom Kim, Jungsuek Oh</i>	

A Linear Wide-Angle Scanning Phased Array Antenna Using Heterogeneous Beam Element Technology	2103
<i>Yinglu Wan, Shaowei Liao, Yuqi Wang, Wenquan Che, Quan Xue</i>	
Millimeter-Wave Scattering from Building Facade: A Simulation and Verification Study	2107
<i>Javad Ebrahimzadeh, Vahid Khorashadi-Zadeh, Xuesong Cai, Fredrik Tufvesson, Guy A. E. Vandenbosch</i>	
Grid-Based Shadowing Gain Modeling for Handling Dynamic Objects in Wireless Channel Emulation	2112
<i>Nopphon Keerativoranan, Siraphop Saisa-Ard, Jun-Ichi Takada</i>	
Assessment of the Feasibility of Breast Lesion Detection with Contrast Source Inversion for Microwave Tomography: A Virtual Experiment.....	2117
<i>Alessandra Ronca, Alessandro Arduino, Luca Zilberti, Oriano Bottauscio, Gianluigi Tiberi</i>	
An Overview of Gigascale Antenna Arrays and Electromagnetics for Space Based Solar Power	2122
<i>Timothy Pelham, Xiaodong Chen, Brian Collins, Clive Parini, Anthony Brown</i>	
Optical Microwave Metasurface Phased Arrays.....	2126
<i>Si Yu Miao, Feng Han Lin</i>	
Compact Size Frequency-Agile Antenna Enabling Multi-Mode Functionality for Internet of Things Applications.....	2131
<i>Wahaj Abbas Awan, Qasid Hussain, Anees Abbas, Md. Abu Sufian, Niamat Hussain, Sangmin Lee, Nam Kim</i>	
A Fully Additive Manufactured D-Band SIW Antenna.....	2134
<i>Chao Gu, Zhiwei Zhang, Fan Qin, Fei Cheng, Xiaobang Shang, Simon Cotton, Jawad Ullah, Abraham Contreras</i>	
Enabling Living Spaces Through Customizable NFC-Enabled Smart Table System.....	2139
<i>Mustasin Mahmood Sakif, Tiina Ihalainen, Sari Merilampi, Sanna-Mari Petäjistö, Pasi Raumonon, Tiina Vuohijoki, Johanna Virkki</i>	
3D Spatially Reconfigurable Circularly Polarized Antenna in Package with Embedded Electronics	2144
<i>Maria Bermudez Arboleda, Atif Shamim</i>	
Potential of Polarized MIMO in In-Body to Out-Body Radio Links	2148
<i>Pyry Kiviharju, Kenichi Takizawa, Clemens Icheln, Katsuyuki Haneda</i>	
A Two-Port Metamaterial Antenna for mm-Wave 5G MIMO Applications with Enhanced Bandwidth and Gain.....	2153
<i>Tzouras Hlias, Stavros Koulouridis</i>	
VHF/UHF Antenna Measurements Based on Multi Probe Array Technology	2158
<i>F. Saccardi, A. Giacomini, N. Gross, T. Blin, P. O. Iversen, L. J. Foged</i>	
A Self Deployable and Reconfigurable Antenna in VHF Band for a New Space Mission.....	2163
<i>Ségolène Tubau, Hervé Legay, Thibaud Calmettes, Gilles Lubrano, Julie De Martres</i>	
Utilization of Wi-Fi Signal for Validation of Micro-Doppler Model in a Person Falling Scenario	2168
<i>Nopphon Keerativoranan, Yikai Wang, Jun-Ichi Takada</i>	
Development of a Wearable IoT-Optimized Textile Antenna with Low Specific Absorption Rate in Three Frequency Bands.....	2173
<i>Niamat Husain, Md. Abu Sufian, Anees Abbas, Jaemin Lee, Seong Gyoon Park, Nam Kim</i>	

Design of a Dielectric Lens Using a Ray-Tracing Model for Satellite Communications	2176
<i>N. Flores-Espinosa, P. Castillo-Tapia, F. Mesa, M. C. Viganó, O. Quevedo-Teruel</i>	
Higher Symmetries in Hexagonal Periodic Structures	2181
<i>Oskar Zetterstrom, Francisco Mesa, Oscar Quevedo-Teruel</i>	
Combined Ray-Tracing and Physical-Optics Model for Flat-Aperture PPW Lens Antennas	2185
<i>Mingzheng Chen, Francisco Mesa, Oscar Quevedo-Teruel</i>	
RIS-Based Over-the-Air Channel Equalization in Resource-Constrained Wireless Networks	2189
<i>Hugo Prod'Homme, Mohammadreza F. Imani, Sergi Abadal, Philipp Del Hougne</i>	
Millimeter-Wave Corporate-Fed Slot Array Antenna Fed by Partially Dielectric-Filled Transmission Line	2194
<i>Koh Hashimoto</i>	
Prototype of Multi-Sector Indoor Mm W Base Station Based on 5G NR Beam Control.....	2199
<i>Yuki Inoue, Yasuko Kimura, Masashi Yamamoto, Keiya Uchida, Hiroyuki Arai</i>	
Ray-Tracing Calibration from Channel Sounding Measurements in a Millimeter-Wave Industrial Scenario	2204
<i>Grégory Gougeon, Frédéric Munoz, Yoann Corre, Raffaele D'Errico</i>	
Channel Measurements in Workspace with Robotic Manipulators at 300 GHz and Recent Results	2209
<i>Varvara V. Elesina, Carla E. Reinhardt, Thomas Kürner</i>	
Optimization of Super-Directive Linear Arrays with Differential Evolution for High Realized Gain	2214
<i>Ihsan Kanbaz, Okan Yurduseven, Michail Matthaiou</i>	
Conceptual Design and Propagation Characteristics of an Underwater Electromagnetic Communication System for Ocean Environment Sensor Systems	2219
<i>Takashi Kawamura, Takuma Matsushita, Yukio Kaneko, Nobuaki Kawai, Yasuhiro Matsui, Akihiko Horii, Hiroshi Yoshida</i>	
Power Handling Test of a L-Band Antenna Using Infrared Thermography	2224
<i>A. Laffont, S. Faure, G. Mazingue</i>	
Supervised Learning Based Real-Time Adaptive Beamforming On-Board Multibeam Satellites	2227
<i>Flor Ortiz, Juan A Vasquez-Peralvo, Jorge Querol, Eva Lagunas, Jorge L. González Rios, Marcele O. K. Mendonça, Luis Garces, Victor Monzon Baeza, Symeon Chatzinotas</i>	
A Time-Efficient Model for Estimating Far-Field Wireless Power Transfer to Biomedical Implants.....	2232
<i>Brendan O'Callaghan, Dinesh R. Gawade, Sanjeev Kumar, Daniel O'Hare, John L. Buckley</i>	
Hybrid Analog-Digital Beamforming System with Quad-Steerable Beams Based on Programmable Transmitarray	2237
<i>Antonio Clemente, Samara Gharbieh, David Demmer, Raffaele D'Errico, Jean-Baptiste Doré</i>	
Method of Moment Simulation of Full Arctic Weather Satellite Structure	2242
<i>Roland Albers, Mustafa Murat Bilgic, Mark Whale, Axel Murk</i>	
A Simple Technique to Maximize Isolation in Compact mmwaves Antenna Arrays	2246
<i>Amélia Ramos, Tiago Varum, João N. Matos</i>	

Feature Selection for Identifying Optimal Microwave Frequencies to Detect Floating Macroplastic Litter in C and X Bands	2251
<i>Tomás Soares Da Costa, João M. Felício, Mário Vala, Nuno Leonor, Jorge R. Costa, Paulo Marques, António A. Moreira, Rafael Caldeirinha, Sérgio A. Matos, Carlos A. Fernandes, Nelson J. G. Fonseca, Peter De Maagt</i>	
Wind-Induced Backscatter Clustering from Vegetation at W-Band	2256
<i>Mário Vala, João R. Reis, João M. Felício, Nuno Leonor, Carlos A. Fernandes, Rafael F. S. Caldeirinha</i>	
Detailed Design Procedure for Low-Cost High-Efficiency 3D Printed Transmitarray Antennas for Mm-wave Applications	2260
<i>Daniel E. Serup, Shuai Zhang, Gert Frolund Pedersen</i>	
Standardization Progress and Challenges for 5G OTA Testing	2265
<i>Siting Zhu, Xuan Yi, Peng Wang, Long Pei, Guanghui Liu</i>	
Empirical Characterization of Doppler in Industrial Wireless Channels	2270
<i>Dreyelian Morejón, Jon Montalbán, Eneko Iradier, Mohamed Kashef Hany, Richard Candell, Pablo Angueira</i>	
Leaky-Wave Design of Hybrid-, TE-, and TM-Polarized Resonant Bessel-Beam Launchers for Millimeter- And Submillimeter-Wave Applications	2275
<i>Edoardo Negri, Walter Fuscaldo, Paolo Burghignoli, Alessandro Galli</i>	
Analytical Circuit Models: from Purely Spatial to Space-Time Structures	2280
<i>Salvador Moreno-Rodríguez, Antonio Alex-Amor, Pablo Padilla, Juan F. Valenzuela-Valdés, Carlos Molero</i>	
Sub-THz On-Chip CPW Monopole on InP with Cross-shaped Slot for Bandwidth Enhancement.....	2285
<i>Andrzej Dudek, Abdullah Al-Khalidi, Krzysztof Wincza, Mahmoud Wagih</i>	
Hybrid Metal–Graphene Unit Cells for THz Reconfigurable Leaky-Wave Antennas.....	2289
<i>Edoardo Negri, Walter Fuscaldo, Marco Toni, Paolo Burghignoli, Alessandro Galli</i>	
Low-Cost Hybrid Additive Manufacturing of a Miniaturized Dual Band Stacked Patch Antenna for GNSS Applications.....	2294
<i>Simon P. Hehenberger, Stefano Caizzone, Alexander Yarovoy</i>	
Hybrid Antenna Measurement and Post-Processing for 5G Small Cell Exposure Assessment with Site-Specific Mounting Conditions	2299
<i>Tobias Struck, Lisa-Marie Schilling, Willi Hofmann, Christian Bornkessel, Matthias A. Hein</i>	
Over-The-Air Noise-Figure Measurements of Active Integrated Antennas at W-band.....	2304
<i>Remco Heijs, Tim Stek, Teun Van Den Biggelaar, Roel Budé, Anouk Hubrechs</i>	
Double-Layer Frequency Selective Surface-Based Corner Reflector for Indoor Self-Localization Systems in the W-band	2308
<i>Jesús Sánchez-Pastor, Martin Schüßler, Rolf Jakoby, Alejandro Jiménez-Sáez</i>	
Phantom Material with Biological Composition for Muscle Equivalent Radiofrequency, Thermal and Magnetic Resonance Properties.....	2313
<i>Laura Barendsz, Kemal Sumser, Steven Beumer, Sergio Curto, Rob M. C. Mestrom, Margarethus M. Paulides</i>	

Channel Measurements and Characterization in Industrial Environment at 60 GHz	2318
<i>Jiri Blumenstein, Josef Vychodil, Radek Zavorka, Jan Bolcek, Malek Ali, Golsa Ghiaasi, Roman Marsalek</i>	
Tapering Impact on the Spatial and Frequency Responses of Broadband Asymmetrically Routed Phased Arrays	2323
<i>Duccio Delfini, Nuutti Tervo, Muhammad Y. Javed, Marko E. Leinonen, Aarno Pärssinen</i>	
Small-Scale Passive Millimetre-Wave Imaging Measurements for Marine Litter Detection at W-Band.....	2328
<i>Mário Vala, João M. Felício, Tomás S. Costa, Nuno Leonor, Jorge R. Costa, Paulo Marques, António A. Moreira, Sérgio A. Matos, Rafael F. S. Caldeirinha, Carlos A. Fernandes, Nelson J. G. Fonseca, Peter De Maagt</i>	
Dispersion Curve Calculation Using the Method of Moments: The Impact of Macro Basis Functions	2333
<i>Denis Tihon, Modeste Bodehou, Christophe Craeye</i>	
High-Order Quasi-Elliptical Bandpass FSS Based on Substrate-Integrated Waveguide Technology for 60 GHz Applications.....	2337
<i>Hao Jiang, Yinghao Zhang, Yuqi Wang, Shaowei Liao, Quan Xue</i>	
Analysis of the Dispersion Diagrams of 3D Cubic Periodic Arrangements of Metallic Spheres	2341
<i>Hairu Wang, Oskar Zetterstrom, Pilar Castillo-Tapia, Francisco Mesa, Oscar Quevedo-Teruel</i>	
Errors Correlation in Near-Field Focused Arrays for Biosafe Microwave Applications	2345
<i>Sandra Costanzo, Giovanni Buonanno</i>	
Theoretical Insights and Engineering of Wireless Body-Implanted Bioelectronics	2349
<i>Denys Nikolayev, Erdem Cil, Hajar Benaicha, Gabriel Gaugain, Pratik Vadher, Lorette Quéguiner, Ronan Sauleau, Giulia Sacco, Icaro Soares</i>	
CVNN Approach for Microwave Imaging Applications in Brain Cancer: Preliminary Results.....	2354
<i>Sandra Costanzo, Alexandra Flores</i>	
Series-Fed Loop Antenna Array Deployable by a Scissors Mechanism.....	2357
<i>Germán A. Ramírez, Anja Skrivervik, Javier L. Araque</i>	
MIMO Signals Processing Utilizing Optical Crossbar Linear Operator	2362
<i>Ronis Maximidis, Stefanos Kovaivos, Ioannis Roumpos, Apostolos Tsakyridis, George Giamougiannis, Miltiadis Moralis-Pegios, Dimitra Ketzaki, Nikos Pleros</i>	
1-Bit SubTHz RIS with Planar Tightly Coupled Dipoles: Beam Shaping and Prototypes.....	2365
<i>Xianjun Ma, Yonggang Zhou, Qi Luo, Yihan Ma, Kyriakos Stylianopoulos, George C. Alexandropoulos</i>	
Dual-Band Reflectarray-Based Electromagnetic Skin to Provide Millimeter-Wave Coverage in the 28/60-GHz Bands	2370
<i>Jorge Vallejo, Eduardo Martinez-De-Rioja, Ana Arboleya</i>	
3D Printed Horn Antennas for Millimeter Wave and Sub-THz Bands.....	2375
<i>Lauri Vähä-Savo, Iida Luoma, Clemens Icheln, Katsuyuki Haneda</i>	
Validating Convex Optimization of Reconfigurable Intelligent Surfaces Via Measurements	2380
<i>Hans-Dieter Lang, Michel A. Nyffenegger, Sven Keller, Patrik Stöckli, Nathan A. Hoffman, Heinz Mathis, Xingqi Zhang</i>	

Base Station Radome Design for 5G and Beyond.....	2385
<i>Lauri Vähä-Savo, Nasrin Shoghibadr, Clemens Icheln, Katsuyuki Haneda</i>	
Comparison of Propagation Characteristics Between 5G Bands in a Reflective Industrial Environment	2390
<i>Nora Meyne, Johannes Dommel, Thomas Kleine-Ostmann, Martin Kasparick</i>	
Beam Steering 2D Leaky Wave Resonant Cavity Antenna for Ka-Band Satellite Communication.....	2395
<i>Maira I. Nabeel, Muhammad U. Afzal, Dushmantha N. Thalakatuna, Karu P. Esselle</i>	
A Compact Fabry-Perot Cavity Antenna with Circular Polarization.....	2400
<i>Chiara Scarselli, Edoardo Giusti, Danilo Brizi, Agostino Monorchio</i>	
An Upper Bound for the Envelope Correlation Coefficient of Antenna Clusters.....	2403
<i>Vojtech Neuman, Miloslav Capek, Lukas Jelinek</i>	
Mixture Density Networks for Multipath Assisted Positioning-Based Fingerprinting.....	2408
<i>Markus Ulmschneider, Christian Gentner, Armin Dammann</i>	
Design of Intelligent Reflective Surface Unit Cell for 5G mmwave Applications.....	2413
<i>Mirza Shujaat Ali, Jalil U. R. Kazim, Farooq A. Tahir, Muhammad Imran, Qammer H. Abbasi</i>	
A Highly Compact Double-Sided Orientation Insensitive Chipless Tag for Radio Frequency Identification Applications	2417
<i>Muhammad Noman, Usman A. Haider, Farooq A. Tahir, Muhammad Imran, Qammer H. Abbasi</i>	
Design of Anisotropic Metagratings for Diverse Polarization Anomalous Reflection	2421
<i>Mai Anh Nguyen, Gangil Byun</i>	
Design and Test of a UHF Deployable Conical Log Spiral Antenna for Small Satellites	2424
<i>Lewis R. Williams, Karina-Vieira Hoel, Lars Erling Bråten, Bendik Sagsveen</i>	
Circularly Polarized Wide-Angle Scanning Phased Array Based on Heterogeneous Beam Elements.....	2429
<i>Jia Wei, Shaowei Liao, Yinglu Wan, Quan Xue, Wenquan Che</i>	
Generation of Non-Diffractive Bessel Beams for Near-Field Links Applications Using Meta-Axicons.....	2434
<i>Ravel C. M. Pimenta, Gabriel Soriano, Matthieu Bertrand, Konstantinos D. Paschaloudis, Mauro Ettore, Myriam Zerrad, Claude Amra</i>	
Study on Antenna-Phantom Model of Aperture Antennas for SAR Analysis.....	2437
<i>Wenfu Fu, Bo Xu, Sailing He</i>	
Link-Level Performance of Vehicle-to-Vulnerable Road Users Communication Using Realistic Channel Models.....	2441
<i>Ibrahim Rashdan, Stephan Sand</i>	
Polymer-Based Additive Manufacturing of a Complex RF Front-End for New Space Applications.....	2446
<i>Carlos Suárez García, Beatriz Bedia, Gregor Palczynski, Norica Godja, Konstanze Seidler, Christian Gorsche</i>	
Deep-Learning Optimized Reconfigurable Metasurface for Magnetic Resonance Imaging.....	2451
<i>Johannes Müller, Martina Falchi, Endri Stoja, Simon Konstandiri, Matthias Gunther, Danilo Brizi, Pierpaolo Usai, Agostino Monorchio, Dennis Philipp</i>	

Multi-Band Anisotropic Metasurface: Simultaneous Linear and Circular Polarization for Robust Satellite Communication	2456
<i>Humayun Zubair Khan, Farooq A. Tahir, Abdul Jabbar, Qammer H. Abbasi, Muhammad Ali Imran</i>	
Exploring the Properties of Reverberation Chambers in the THz Range: A Pilot Study	2460
<i>John Kvarnstrand, Samar Hosseinzadegan, Rutger Van Boeijen, Lawrence Moore, Anders Lh Fransson</i>	
Ray Tracing and Measurement-Based Characterization of Inter/Intra-Machine THz Wireless Channels	2465
<i>Steffen Pahlke, Tommaso Zugno, Mate Boban, Diego Dupleich, Thomas Kürner</i>	
Mitigating Zenith Blindness from Mutual Coupling in a Sunflower Phased Array.....	2470
<i>Dominic Anstey, John Cumner, Quentin Gueuning, Oscar O'Hara, Eloy De Lera Acedo, Anthony Brown, Andrew Faulkner, Fred Dulwich, Paul Scott</i>	
Analytical and Numerical Solution of the One Dimensional Steady State Bioheat Transfer Equation.....	2475
<i>Marco Di Cristofano, Marta Cavagnaro</i>	
UHF RFID Sensor Antenna for Fat Content and Adulteration Detection of Milk.....	2479
<i>Abubakar Sharif, Kamran Arshad, Khaled Assaleh, Muhammad Imran, Qammer H. Abbasi</i>	
Accurate Time Synchronization Exploiting Integrated Sensing and Communication.....	2482
<i>Davide Scazzoli, Francesco Linsalata, Dario Tagliaferri, Maurizio Magarini, Umberto Spagnolini</i>	
Direction-Of-Arrival Ambiguities Mitigation in Multibeam Leaky-Wave Antennas	2487
<i>Julien Sarrazin, Guido Valerio</i>	
Radiation Pattern Shaping Using Generalized Luneburg Lenses for Automotive RADAR Antennas	2492
<i>Coen Van De Ven, Abolfazl Haddadi, Andrés Alayón Glazunov</i>	
Comparison of Sub-THz Radio Channel Characteristics at 158 GHz and 300 GHz in a Shopping Mall Scenario	2497
<i>Alper Schultze, Mathis Schmieder, Ramez Askar, Michael Peter, Wilhelm Keusgen, Taro Eichler</i>	
D-Band Active Antenna Array with Lens Enabling Quasi-Optical and Analogue Beam Reconfiguration for 6G Applications	2502
<i>M. Arias Campo, S. Bruni, W. Wischmann, A. Lauer, A. Friedrich, M. Wleklinski, C. Oikonomopoulos, O. Litschke, K. Krishnegowda, C. Herold, N. Moroni, W. Keusgen</i>	
Electromagnetic Assessment of Tolerances of the Square Kilometre Array Log Periodic Antenna Using Uncertainty Quantification.....	2506
<i>M. Whale, P. G. Nicolaci, P. Bolli, A. Sganzerla, L. Mezzadrelli</i>	
Millimeter-Wave Beam-Steerable Lens Antenna with Reduced Profile and Enhanced Gain.....	2511
<i>Yang Cai, Peng Mei, Xian Qi Lin, Shuai Zhang</i>	
On the Cost-Effectiveness of Using Beamforming at the Ground Station for Aeronautical Communications.....	2514
<i>Ayten Gürbüç, Alexander Steingass, Dennis Becker</i>	
Nonreciprocal Metasurfaces Analyzing Temperature Characteristics	2519
<i>Kazuhiro Takahagi, Alan Tennant</i>	

Ambient Pressure Responsive Shape-Morphing Electromagnetic Components	2523
<i>Alex W Powell</i>	
Indoor Localization of Smartphones Thanks to Zero-Energy-Devices Beacons	2527
<i>Shanglin Yang, Yohann Bénédic, Dinh-Thuy Phan-Huy, Jean-Marie Gorce, Guillaume Villemaud</i>	
Estimation of Obtainable Data-Rates in an Over-The-Air mm-Wave MIMO Testbed.....	2532
<i>Koen Buisman, Thomas Eriksson</i>	
Cost-Effective Dual Circularly Polarized Antennas for Phase Calibration.....	2537
<i>Rasmus Luomaniemi, Riku Kormilainen, Mikko Kärnä Leino</i>	
Machine Learning Approach to Delay Spread Estimation in Industrial Environments	2542
<i>Mohammad Hossein Zadeh, Simone Del Prete, Franco Fuschini, Marina Barbiroli, Enrico Maria Vitucci, Vittorio Degli-Esposti</i>	
Minimum Coherence Bandwidth for OFDM Signal Testing in Reverberation Chambers	2547
<i>Miguel Á. García-Fernández, David A. Sánchez-Hernández</i>	
Mechanical/Electrical Hybrid 2-Dimensional Beam Scanning Cylindrical Dielectric Lens Antenna.....	2551
<i>Yoshiki Sugimoto, Takanori Narita, Kunio Sakakibara, Tuan Hung Nguyen, Nobuyoshi Kikuma</i>	
The Role of Ground Currents in the Co-Simulation of Matching Components and Layout Models in Matching Circuit Optimization.....	2555
<i>Sergei Kosulnikov, Mikko Honkala, Jussi Rahola</i>	
Full Wave Modelling and Design of a Baffle for the HERTZ 2.0 Compact Antenna Test Range	2560
<i>C. Cappellin, W. H. Yatman, P. G. Nicolaci, S. B. Sørensen, M. M. Bilgic, D. Trenta, L. Rolo</i>	
A Novel Quad-Band Electrically Small Antenna	2564
<i>Liao Hanguang, Shamim Atif</i>	
Antenna Array and GaAs Phase Shifter MMIC for Millimeter Wave Beamforming - Co-simulation and Measurements.....	2568
<i>Sumin David Joseph, Edward A Ball</i>	
Embroidered Antenna-Based Sensor for Real-Time Natremia Monitoring.....	2573
<i>Mariam El Gharbi, Raúl Fernández-García, Ignacio Gil</i>	
K-Band Microstrip ESPAR Antenna Integrated into Large Array	2577
<i>Raffaele De Marco, Arman Bordbar, Francesco Greco, Carmine Mustacchio, Sherif R. Zahran, Emilio Arneri, Giandomenico Amendola, Luigi Boccia</i>	
Radiation Efficiency Cost of Optimal Current Density Generating Specific Far-Field Pattern	2582
<i>Miloslav Capek, Lukas Jelinek</i>	
Crack Stop as a Coupling Element Between an IC Chip and Antenna.....	2587
<i>Jan H. S. Bergman, Kaisa Ryyänen, Juha Ala-Laurinaho, Kari Stadius, Jussi Ryyänen, Ville Viikari</i>	
Spherical Near-Field Measurement and Far-Field Characterization of a 300 GHz Band Antenna Based on an Electrooptic Probe with Compact Tabletop Robotic Arm	2591
<i>Yusuke Tanaka, Kento Ishihara, Shintaro Hisatake</i>	

A Performance Comparison of Sub-Octave Band Corrugated Horns to a Quadruple-Ridged Flared Horn for the ngVLA Radio Telescope	2595
<i>Robert Lehmensiek, Dirk I. L. De Villiers</i>	
Data-Driven Optimization of an Array of Steered Sub-Arrays for Enhanced Fairness in MU-MIMO	2598
<i>Noud Kanters, Andrés Alayón Glazunov</i>	
An Efficient Wireless Power Transfer System Using Transmission and Reflection Characteristics of Metamaterial.....	2603
<i>Tarakeswar Shaw, Pratim Dasmahapatra, Bappaditya Mandal, Debasis Mitra, Robin Augustine</i>	
Optimization of Loads for Antenna-Based Scattering Systems Using Feedforward Neural Networks.....	2607
<i>Aleksandr D. Kuznetsov, Jari Holopainen, Ville Viikari</i>	
A Case Study of Misalignment Errors for Range-Migration-Based Microwave Imaging with Multistatic Dynamic Metasurface Apertures	2612
<i>Vasiliki Skouropoulou, Amir Masoud Molaei, Maria Garcia-Fernandez, Guillermo Alvarez-Narciandi, Okan Yurduseven</i>	
Generating a Library of Head Phantoms for Microwave Imaging Using Spherical Harmonic Approximation.....	2617
<i>Anja Kovacevic, Darko Ninkovic, Lorenzo Crocco, Branko Kolundžija, Marija Nikolic Stevanovic</i>	
Highly Transparent and Efficient Flexible Antenna for Vehicle-To-Everything (V2X) Applications	2621
<i>Mehmet Emre Eralp, Ozlem Aydin Civi, Reyhan Baktur</i>	
The Effect of Beam Misalignment in Data Center Environment at 285GHz Band.....	2625
<i>Jinhyung Oh, Jong Ho Kim, Jang Seok Choi, Jae Ho Seok</i>	
A Reactively Coupled Bi-Directional Dual CP Antenna	2630
<i>Ratul De, Mahesh P Abegaonkar, Ananjan Basu</i>	
Analysis and Design of Metasurface Antennas Based on Temporal Metastructures	2633
<i>L. Stefanini, D. Ramaccia, M. Barbuto, M. Karamirad, M. Longhi, A. Monti, S. Vellucci, A. Toscano, A. Alù, V. Galdi, F. Bilotti</i>	
Electromagnetic Detection and Identification of Perturbed Wire Resonators	2636
<i>Qingyan Zhu, Oleksiy Sydoruk, Richard R. A. Syms</i>	
Human-Vs Machine Design of Antennas: Evolution Behavior in Genetic Shape Optimization.....	2641
<i>Leonardo Pollini, Marcello Zucchi, Giuseppe Vecchi</i>	
A Wideband Free Space Material Characterization Method for Extracting Dielectric Permittivity.....	2644
<i>Orestis Christogeorgos, Ernest Okon, Yang Hao</i>	
FDTD Modelling of RF Circuits Based on Lumped Components and Transmission Lines Using Modified Telegrapher's Equations	2648
<i>Anand Kumar, Debdeep Sarkar, Dimitra Psychogiou</i>	
Wideband Aperture-Coupled Array Design for Automotive Radar Applications	2653
<i>Lazaros Alexios Iliadis, Achilles D. Boursianis, Panagiotis Sarigiannidis, Zaharias D. Zaharis, Sotirios P. Sotiroudis, Maria S. Papadopoulou, Christos G. Christodoulou, Sotirios K. Goudos</i>	

Sidelobe Suppression and Bandwidth Enhancement of Series-Fed Patch Antenna Arrays Using Coplanar Ground Conductor	2658
<i>Thipamas Phakaew, Suramate Chalermwisutkul</i>	
Super-Realized Gain Huygens Antennas	2663
<i>Donal Patrick Lynch, Vincent Fusco, Manos M. Tentzeris, Stylianos D. Asimonis</i>	
Closely-Spaced Groove Gap Waveguides with Reduced Coupling	2666
<i>Miguel A. Fuentes-Pascual, Jose Ignacio Herranz-Herruzo, Miguel Ferrando-Rocher, Alejandro Valero-Nogueira, Mariano Baquero-Escudero</i>	
Multilayer Reflectionless Wide-Angle Anomalous Refractors Based on Surface Field Optimization.....	2670
<i>Federico Giusti, Enrica Martini, Stefano Maci, Matteo Albani</i>	
A Decoupling Scheme for Closely Spaced Microstrip Patch Antenna	2674
<i>Rupa Laller, Mahesh P. Abegaonkar, Ananjan Basu</i>	
Compact Polarization Converter on a Thin Ferrite-Based Metasurface for Enhanced 5G Wireless Communication	2678
<i>Amirmasood Bagheri, Zahra Rahimian Omam, Seyed Ehsan Hosseininejad, Pei Xiao, Mohsen Khalily</i>	
Brain Hemorrhage Detection Using Antenna System Integrated with Imaging Algorithm.....	2682
<i>Bishakha Biswas, Adarsh Singh, Debasis Mitra, Bappaditya Mandal, Robin Augustine</i>	
Design of Novel Fully Metallic Mm-Wave Reflectarray Antenna	2686
<i>Savvas Chalkidis, Evangelos Vassos, Thomas Whittaker, Will Whittow, Alexandros Feresidis</i>	
Static and Reconfigurable Phase-Gradient Metasurfaces for Antenna Applications	2691
<i>Alessio Monti, Stefano Vellucci, Michela Longhi, Mirko Barbuto, Mohsen Karamirad, Zahra Hamzavi-Zarghani, Davide Ramaccia, Luca Stefanini, Alessandro Toscano, Filiberto Bilotti</i>	
Experimental Investigation of the Nullifier-Based Monopole.....	2694
<i>B. Ohana, D. Wolfshtein, Z. Menachem, M. Haridim</i>	
Analysis and Design of a Wideband Jaumann-Like Radar Absorber Offering High Angular Stability and Polarization Insensitivity	2697
<i>Aqsa Ahmad, Callum Hodgkinson, Dimitris E. Anagnostou, Symon K. Podilchak</i>	
A Novel GO Analysis Tool for GRIN Lenses Based on the Fast Sweeping Method.....	2702
<i>Iilir Gashi, Anastasios Paraskevopoulos, Stefano Maci, Matteo Albani</i>	
5x7 Nolen Matrix in K-Band Implemented in Rectangular Waveguide	2705
<i>M. A. Fuentes-Pascual, M. Baquero-Escudero, M. Ferrando-Rocher, J. I. Herranz-Herruzo, A. Valero-Nogueira</i>	
Multi-Beam Dual Polarised Metasurface Antenna in Ka-band	2710
<i>Ravikanth Thanikonda, Marco Faenzi, David González-Ovejero, Enrica Martini, Stefano Maci</i>	
Impact of Dielectric Substrate, Feed Connector, and Fabrication Tolerances on the Performance of Planar Millimeter-Wave Antenna Arrays.....	2714
<i>Abdul Jabbar, Qammer Abbasi, Muhammad Ali Imran, Masood Ur-Rehman</i>	

Plug-In Plug-Out Multibeam Dielectric Rod Antenna for Target Dedicated mm-Wave RF-WPT Applications.....	2719
<i>Amir Mohsen Ahmadi Najafabadi, Germán A. Ramírez, Mohsen Ghorbanpoor, Alexander Vorobyov, Pascal Nussbaum, Anja Skrivervik</i>	
Millimeter Wave Retrodirective Van Atta Arrays in LTCC Technology.....	2724
<i>Kamil Trzebiatowski, Martin Ihle, Benedykt Sikorski, Lukasz Kulas, Krzysztof Nyka</i>	
Beamforming Optimization for Full-Duplex Relay in SIC-Enhanced Cooperative NOMA System	2729
<i>Xuenan Ni, Jianing Zhao, Xiaoying Zhang, Xinpeng Xia, Jianyi Zhou</i>	
Whip Antenna Miniaturization at VHF Band Using Magneto-Dielectric Materials	2734
<i>Lotfi Batel, Jean-François Pintos, Christophe Delaveaud</i>	
Supervised Machine Learning for Breast Cancer Detection Using Microwave Imaging in the Frequency Domain	2739
<i>Marwa Dridi, Leila Gharsalli</i>	
Polynomial Basis Functions for Qualitative Head Tissue Segmentation Via Linearized Microwave Imaging.....	2743
<i>Darko Ninkovic, Álvaro Yago Ruiz, Symeon Nikolaou, Lorenzo Crocco, Branko Kolundžija, Marija Nikolic Stevanovic</i>	
A Compact Wideband Biocompatible Circularly Polarized Implantable Flexible Antenna for Biomedical Applications	2748
<i>Tarakeswar Shaw, Bappaditya Mandal, Gopinath Samanta, Mauricio D. Perez, Robin Augustine</i>	
A Smart Convenient Rewriting of the Inverse Scattering Equations for the 3D Scalar Problem	2752
<i>Martina T. Bevacqua, Tommaso Isernia</i>	
Analysis and Design of Robust Reconfigurable Intelligent Surfaces Using a Statistical Approach.....	2755
<i>L. Stefanini, D. Ramaccia, M. Barbuto, M. Karamirad, M. Longhi, A. Monti, S. Vellucci, A. Toscano, F. Bilotti</i>	
Towards a Reconfigurable Metacavity Antenna for Computational Imaging and DoA Estimation	2758
<i>Mengran Zhao, Luyi Wang, Shitao Zhu, Muhammad Ali Babar Abbasi, Thomas Fromenteze, Okan Yurduseven</i>	
An Angularly Stable Wideband Low Profile Single-Layer Linear to Circular Polarization Converter for Millimeter Wave Satellite Communications	2763
<i>Javid Ahmad Ganie, Kushmanda Saurav</i>	
Generation of a Square Multi-Mode Multi-Port Aperture Antenna by Selective Modal Excitation.....	2767
<i>Tim Hahn, Dirk Manteuffel</i>	
Octagonal Patch Tag Antenna and 3×3 Array Locator for DoA Applications	2771
<i>Ottavio Crisafulli, Davide Guarnera, Giuseppe Giammello, Andrea F. Morabito, Santi C. Pavone, Loreto Di Donato, Gino Sorbello</i>	
Wiener-Hopf Type Analysis of PTD Symmetric Waveguides: A Novel Methodology Procedure	2775
<i>Xenofon M. Mitsalás, Enrica Martini, Stefano Maci</i>	
Reflective Intelligent Surfaces: Reducing Complexity by Controlling the Illuminating Field.....	2778
<i>Mirko Barbuto, Zahra Hamzavi-Zarghani, Mohsen Karamirad, Michela Longhi, Alessio Monti, Davide Ramaccia, Luca Stefanini, Stefano Vellucci, Andrea Alù, Filiberto Bilotti, Alessandro Toscano</i>	

Pixel Antenna Design for mm-Wave Wireless Communications to Achieve Wide Scanning	2780
<i>Gabriele Federico, Diego Caratelli, Pierre-Etienne Portulier, A. Bart Smolders, Bernard Jecko</i>	
A Digital Beamforming Antenna for Space Based Solar Power Transmitting Array	2785
<i>Long Qian, Jin Zhang, Chao Shu, Noaman Nasser, Brian Collins, Xiaodong Chen</i>	
Efficient Numerical Computation of Dispersion Diagrams for Glide-Symmetric Periodic Structures with a Hexagonal Lattice.....	2789
<i>M. Petek, J. A. Tobon Vasquez, G. Valerio, F. Mesa, O. Quevedo-Teruel, F. Vipiana</i>	
A Dual Linearly Polarized Array for 5G FR2.....	2794
<i>Marco Simone, Santi Concetto Pavone, Matteo Bruno Lodi, Nicola Curreli, Giacomo Muntoni, Alessandro Fanti, Gino Sorbello, Giuseppe Mazzarella</i>	
Port Generation for Multi-Mode Multi-Port Antennas Based on Group Theory.....	2799
<i>Lukas Warkentin, Dirk Manteuffel</i>	
Design and Characterization of a Flexible Fabry-Perot Antenna Fabricated Using Conductive Inkjet Printing.....	2803
<i>Francesco Anelli, Antonella Maria Loconsole, Andrea Annunziato, Vito Vincenzo Francione, Francesco Prudeniano</i>	
Reconfiguration of Electromagnetic Metasurfaces Using Tunable Shape Morphing Structures.....	2808
<i>David West, William Pavlick, Jay Sim, Jize Dai, Shuai Wu, Jack Eichenberger, Ruike Renee Zhao, Nima Ghalichechian</i>	
A Novel Precise Approach for Digital Metasurface Configuration for Sensing Application	2812
<i>Amirmasood Bagheri, Seyed Ehsan Hosseinijad, Gabriele Gradoni, Pei Xiao, Mohsen Khalily</i>	
Mixed Spatial-Spectral Domain Integral Equation Solver for Higher-Order Boundary Conditions in Electromagnetics	2817
<i>Jordan Dugan, Tom. J. Smy, Shulabh Gupta</i>	
The Hydrogen Intensity Real-Time Analysis eXperiment: Overview and Status Update	2820
<i>Anthony Walters, Keshav Bechoo, Shruti Bhatporia, H. Cynthia Chiang, Devin Crichton, Jacobus Diener, Sindhu Gaddam, Kit Gerodias, Austin Gumba, Neeraj Gupta, Surajit Kalita, Emily Kuhn, Martin Kunz, Kavilan Moodley, Warren Naidoo, Viraj Nistane, Tasmiya Papiyah, Aditi Pattabhiraman, Aritha Pillay, Alice Pisani, Isibabale Qhoboshiyane, Alexandre Refregier, Edwin Retana-Montenegro, Benjamin R. B. Saliwanchik, Ajith Sampath, Tsepo Sekhoasha, Mugundhan Vijayaraghavan, Amanda Weltman</i>	
Development of Passive Chipless RFID Temperature Sensor	2825
<i>Hafsa Anam, Syed Muzahir Abbas, Iain B. Collings, Subhas Mukhopadhyay</i>	
Impact of Deformations on Beamforming Performance of Uniform Rectangular Arrays.....	2830
<i>Jiahao Wang, Koen Mouthaan</i>	
A Reconfigurable Phase Gradient Metasurface Resorber Offering Enhanced Beam Steering Capability and a Tuneable Transmission Band.....	2834
<i>Callum J. Hodgkinson, Dimitris E. Anagnostou, Symon K. Podilchak</i>	
Thermoelectric Cooling Solution for Active Antennas.....	2838
<i>Rania Khalifeh, Nabil Benjelloun, Habib Boulzazen, Moncef Kadi</i>	

Phase-Variation Microwave Displacement Sensor with High Resolution, Sensitivity, and Dynamic Range.....	2843
<i>Amirhossein Karami-Horestani, Ferran Paredes, Ferran Martín</i>	
Emulating Spatial Dispersion Using Non-Spatially Dispersive Periodic Metasurfaces	2847
<i>Jordan Dugan, Tom. J. Smy, Shulabh Gupta</i>	
Intermodulation Mitigation Through Surrounding Impedance Manipulation	2851
<i>Amir Dayan, Farhad Ghorbani, Yi Huang, Jiafeng Zhou, Mattias Gustafsson, Alex Schuchinsky</i>	
Synthesis of Drop Counter Rain Rate from a Tipping Bucket Rain Gauge.....	2855
<i>Armando Rocha, José Eduardo Silva, Susana Mota</i>	
Improved PEEC Modeling of Antennas Through Time-Dependent Partial Elements.....	2860
<i>Fabrizio Loreto, Giuseppe Pettanice, Martin Stumpf, Albert Ruehli, Jonas Ekman, Giulio Antonini</i>	
Towards Array and Curve Analysis: Flexible Passive Chipless RFID Tags	2865
<i>Hafsa Anam, Syed Muzahir Abbas, Subhas Mukhopadhyay</i>	
A Loop-Star Decomposition for the B-Spline Based Discretization of the Electric Field Integral Equation	2869
<i>Mohammad Mirmohammadsadeghi, Bernd Hofmann, Thomas F. Eibert, Francesco P. Andriulli, Simon B. Adrian</i>	
RFID-Based Reconfigurable Intelligent Surfaces: Towards Wireless and Ultra-Low-Power Reconfigurability.....	2874
<i>Francesco Lestini, Gaetano Marrocco, Cecilia Occhiuzzi</i>	
Direct Optimisation of a Five-State Reconfigurable Reflectarray for 5G Applications	2878
<i>Mustafa Murat Bilgic, Min Zhou</i>	
Filter Integrated Microstrip 3-Port Power Combiner	2883
<i>Nisamol Thevaruparambu Abdul Nazer, Bernhard E. J. Scheible, Rahul Yadav, Marie Kristin Czwalinna, Andreas Penirschke, Holger Schlarb</i>	
Frequency-Domain TLM Method with Cartesian Block Meshing.....	2887
<i>Abdelrahman Ijeh, Marylene Cueille, Soukaina Mifdal, Jean-Lou Dubard, Michel Ney</i>	
Microwave Tomography Bone Imaging: Analysing the Impact of Skin Thickness on the Reconstruction of Numerical Bone Phantoms.....	2892
<i>Alessia Cannatà, Adnan Elahi, Martin O'Halloran, Marco Pasian, Simona Di Meo, Giulia Matrone, Bilal Amin</i>	
Mechanically Re-Configurable Leaky-Wave Antenna for Fix-Frequency Beam Scanning	2897
<i>Miguel Poveda-Garcia, Samuel Rotenberg, Jose Luis Gomez-Tornero, Symon K. Podilchak, George Goussetis</i>	
Synthesis of a Planar 2D Butler Matrix: A Showcase with a 3×3 Array	2902
<i>Arman Bordbar, Raffaele De Marco, Luigi Boccia, Emilio Arneri, Giandomenico Amendola</i>	
Multibeam Phased Arrays Exploiting Frequency Dispersion for Massive MIMO Satellite Communications.....	2907
<i>Margaux Pellet, George Goussetis, Hervé Legay, Joao Mota, Piero Angeletti, Giovanni Toso</i>	

A Near-Field Focusing Circularly Polarized Radial Line Slot Array Antenna	2912
<i>Liyuan Zhong, Shufeng Zheng, Hangqi Yang, Yanxiang Yi, Qi Luo, Chao Gu</i>	
Circularly Polarized Sub-THz Antenna Design for Distributed Deployment.....	2915
<i>Yuyan Cao, Maciej Wojnowski, Buon Kiong Lau</i>	
A Macroscopic Bilateral Modeling Approach for Reflective and Transmissive Metasurfaces	2919
<i>Silvi Kodra, Enrico M. Vitucci, Marina Barbiroli, Matteo Albani, Vittorio Degli-Esposti</i>	
Designing a Data Pre-Processing Tool for MEO Satellites Propagation Measurements	2923
<i>Marlene Brás, Susana Mota, Armando Rocha</i>	
Low-Cost 3-D Printed Lens Antenna for Ka-Band Connectivity Applications	2928
<i>Kamil Trzebiatowski, Weronika Kalista, Mateusz Rzymowski, Lukasz Kulas, Krzysztof Nyka</i>	
Design and Preliminary Indoor Assessment of a Long-Range Sub-THz VNA-Based Channel Sounder Between 500 GHz and 750 GHz	2933
<i>Lawrence Carslake, James Skinner, Tian Hong Loh</i>	
Multibeam Metal-Only Groove Gap Waveguide-Based Array in E-Band	2938
<i>Sergio M. Feito, Álvaro F. Vaquero, Manuel Arrebola</i>	
Design of the 3D-Printed Rectangular Dielectric Resonator Antenna for WLAN Applications	2943
<i>Zhenyi Shou, Zhipeng Wu, Hanyang Wang, Hai Zhou, Meng Hou</i>	
Alphasat Ka-Band and Q-Band Receiving Station in Rome: Measurements and Data Analysis	2947
<i>Stefano Barbieri, Fernando Consalvi, Gianmarco Fusco, Marianna Biscarini, Lorenzo Luini, Carlo Riva</i>	
Non-Regular Multibeam Coverage Antenna for Ka-Band High- Throughput Satellite Communications.....	2951
<i>Enrica Calà, Marco Baldelli, Alfredo Catalani, Esteban Menargues, Giovanni Toso, Piero Angeletti</i>	
Ridge Gap Waveguide Implementation with a 3D Glide Symmetric Holey Metasurface for Slotted Antenna Array Feeding.....	2956
<i>Panagiotis Petroustos, Stavros Koulouridis</i>	
A Study on Satellite-To-Ground Propagation in Urban Environment	2961
<i>N. Cenni, V. Degli-Esposti, E. M. Vitucci, F. Fuschini, M. Barbiroli</i>	
Dual-Resonance SIW-Based Reflectarray Unit Cell for Broadband Applications	2965
<i>Andrés Gómez-álvarez, Nicolò Delmonte, Lorenzo Silvestri, Maurizio Bozzi, Manuel Arrebola, Marcos R. Pino</i>	
Angle of Arrival Measurements with Ultra-Wide Band Transceivers: Design and Evaluation.....	2970
<i>Josef Krška, Christian Gentner, Václav Navrátil</i>	
Comparison of Indoor Propagation Channels at 28 GHz and 140 GHz Bands	2975
<i>Mar Francis De Guzman, Katsuyuki Haneda</i>	
Feasibility Investigation on a Low-Cost Air-Filled Substrate Integrated Waveguide Array Antenna in V-Band.....	2980
<i>Antonella Maria Loconsole, Adham Mahmoud, Francesco Anelli, Vito Vincenzo Francione, Mauro Ettore, Francesco Prudeniano</i>	

Numerical Results on the Use of the L-SVD Approach for the Solution of the Inverse Source Problem from Amplitude-Only Data	2985
<i>A. Capozzoli, I. Catapano, C. Curcio, G. Esposito, G. Gennarelli, A. Liseno, G. Ludeno, F. Soldovieri</i>	
UWB Circular Metal Mesh Transparent Antenna.....	2989
<i>Umair Rafique, Syed Muzahir Abbas, Shobit Agarwal, Hijab Zahra, Moath Alathbah</i>	
An Annular Ring Shorted Logarithmic Spiral Antenna with Planar Integrated Feed.....	2993
<i>Ayush Seth, Kush Parikh</i>	
Characterization of Propagation from Measurements at sub-THz for ISAC Applications in an Emulated Dynamic Industrial Scenario	2998
<i>Diego Dupleich, Alexander Ebert, Yanneck Völker-Schöneberg, Damir Sitdikov, Mate Boban, Giovanni Del Galdo, Reiner Thomä</i>	
From Bulk Toward Micro-Structured TiO ₂ Ceramics for All-Dielectric Metamaterials at Terahertz Frequencies.....	3003
<i>Djihad Amina Djemmah, Delphine Gourdonnaud, Pierre-Marie Geffroy, Jean-François Roux, Fayçal Bouamrane, Eric Akmansoy</i>	
Miniaturized and Lightweight ESPAR Antenna for WSN and IoT Applications	3008
<i>Luiza Leszkowska, Mateusz Czelen, Mateusz Rzymowski, Krzysztof Nyka, Lukasz Kulas</i>	
High Gain and Dual Band SIW-Fed Stacked Conical DRA for 5G NR FR1 Application.....	3012
<i>Sidhartha Kumar Sahu, Rakesh Singh Kshetrimayum, Ramesh Kumar Sonkar</i>	
Radiometeorological Forecasts for Satellite Links Operations: Validation with Measurements from BepiColombo Mission.....	3017
<i>S. Bellofiore, M. Biscarini, M. Montagna, S. Di Fabio, L. Bernardini, P. Antonelli, P. Scaccia, D. Comite</i>	
A Discontinuous Galerkin Time-Domain Scheme to Model Lasing Dynamics in Four-Level Two-Electron Atomic Systems	3022
<i>Ming Dong, Liang Chen, Ran Zhao, Hakan Bagci</i>	
Low-Profile 2D-Mechanical-Beam-Steering Antenna with Large Field-of-View.....	3026
<i>Thi Quynh Van Hoang, Erika Vandelle, Matthieu Bertrand, Brigitte Loiseaux</i>	
Exploring the Potential of Spatially Modulated Full-Metal Dichroic Mirrors for Deep Space Antennas	3031
<i>Andrea Guarriello, Charalampos Stoumpos, María García-Vigueras, Renaud Loison, Jean Jacques Herren, Hervé Legay</i>	
Phaseless Characterization of Flat Sources with a Planar Wide-Mesh Scanning Strategy	3036
<i>F. Bevilacqua, A. Capozzoli, C. Curcio, F. D'Agostino, F. Ferrara, C. Gennarelli, R. Guerriero, A. Liseno, M. Migliozzi, Y. Vardaxoglou</i>	
Multi-Beam Arrays for Future LEO SatCom Payloads	3041
<i>Carlos Vazquez-Sogorb, Roger Montoya-Roca, Giuseppe Addamo, Oscar Peverini, Giuseppe Virone</i>	
Behavioral Models for the Cosimulation and Optimization of Active Electronically Scanned Arrays	3045
<i>C. Deville, S. Hernandez Rodriguez, C. Menudier, M. Thevenot, B. Lesur, W. Saabe, C. Maziere, T. Gasseling</i>	

A Compact Microwave Rectifier for Wireless Power Transfer and Energy Harvesting Applications.....	3049
<i>Gholamhosein Moloudain, Sanjeev Kumar, Brendan O'Flynn, John L. Buckley</i>	
Design of an Ultra-Wideband RCS Reduction Metasurface with Pure Metal-Pattern Layer	3053
<i>Shuaipeng Li, Yali Zong, Xinyu Ma, Weijie Yu, Zicheng Liu</i>	
Design of Electrically Small Antennas and Radiation Efficiency Measurement Using MQFM with Radian Wheeler Cap Sizes	3058
<i>Marwan Jadid, Christophe Delaveaud</i>	
Multi-Channel Beam-Splitting Metasurface for Millimeter Wave Communication Systems	3063
<i>Z. A. Pandit Jibran, Mohammed Kalaagi, Divitha Seetharamdoo, Caroline Maye</i>	
A Dual Linear-Polarized Gap Waveguide Antenna Element for Radar and Communications at 77 GHz	3067
<i>Reza Gheybi Zarnagh, Abolfazl Haddadi, Andrés Alayón Glazunov</i>	
GPR Imaging Relying on Frequency-Diverse Compressive Antennas	3071
<i>Maria Garcia-Fernandez, Guillermo Alvarez-Narciandi, Okan Yurduseven</i>	
Discretizing 2D Equivalent Radiating Panels by Legendre Quadrature	3076
<i>Amedeo Capozzoli, Claudio Curcio, Francesco D'Agostino, Angelo Liseno, Luigi Pascarella</i>	
Study on CFM Method for Beam Compensation of Array-Fed Space-Borne Reflector Antennas	3081
<i>Yanjin Cui, Yali Zong, Longteng Yi, Kang Wang, Bo Sun, Kaiqiang Qi</i>	
Exploiting Numerical Weather Prediction Data for Radiopropagation Modeling of SatCom Links.....	3086
<i>R. Nebuloni, M. Biscarini, L. Dossi, S. Di Fabio, P. Scaccia, P. Antonelli, L. Bernardini, C. Riva, L. Luini</i>	
Millimeter-Wave Uniform Amplitude SIW Series Power Divider for 2D Leaky-Wave Antenna Arrays.....	3091
<i>Weiguang Song, George Goussetis, Lei Wang</i>	
Automatic MoM Source Integral Quadrature Selection Via a Machine Learning Approach	3096
<i>V. F. Martin, M. Ricci, D. R. Wilton, W. A. Johnson, F. Vipiana</i>	
1-Bit Graphene-Based Reconfigurable Intelligent Surface Design in Ka-Band.....	3099
<i>S. I. Inácio, L. M. Pessoa</i>	
Dual-Polarized Reconfigurable Metasurface for Leaky-Wave Antenna Design Using Air-Bridged Schottky Diode Technology	3104
<i>Ioannis Gerafentis, Evangelos Vassos, Alexandros Feresidis</i>	
Half Mode Corrugated Substrate Integrated Waveguide (HM-CSIW) Band-Stop Filter Using Hexagonal Ring Resonators	3109
<i>Amit Kumar Patel, Aakash Bansal, Chinthana Panagamuwa, Will Whittow</i>	
Multi-Scattering Centers Extraction and Modeling for ISAC Channel Modeling	3112
<i>Yi Chen, Ziming Yu, Jia He, Wenfei Yang, Jian Li, Guangjian Wang</i>	
On the Rigorous Design of Graphene-Based Periodic Structures Exploiting the Fundamental Resonances	3117
<i>Pablo H. Zapata Cano, Stamatios Amanatiadis, Zaharias D. Zaharis, Traianos V. Yioultsis, Pavlos Lazaridis, Nikolaos V. Kantartzis</i>	

Broadband Performance Assessment of Compensated Compact Antenna Test Range CCR 75/60 of Airbus at L-Band for Navigation Applications.....	3121
<i>Björn Möhring, Engin Gülten, Josef Migl</i>	
Preliminary Clinical Trial Results of MammoWave in the Context of RadioSpin Project	3126
<i>Navid Ghavami, Arianna Fracassini, Lorenzo Papini, Daniel Álvarez Sánchez-Bayuela, Alessandra Bigotti, Mario Badia, Giovanni Raspa, Gianmarco Palomba, Cristina Romero Castellano, Mohammad Ghavami, Riccardo Loretoni, Alberto Tagliafico, Massimo Calabrese, Gianluigi Tiberi</i>	
Proving the Circular Polarization of the Fundamental Modes in Rotationally Symmetric Waveguides.....	3130
<i>Gines Garcia-Contreras, Juan Córcoles, Jorge A. Ruiz-Cruz</i>	
Nonlinear Correction of the Direct Inverse Problem Solution in Real-Time Imaging	3134
<i>C. Origlia, D. O. Rodriguez-Duarte, J. A. Tobon Vasquez, N. K. Nikolova, F. Vipiana</i>	
Novel Quantum Computation Based Selection Operator for Genetic Algorithms Applied to Electromagnetic Problems.....	3138
<i>Gabriel F. Martinez E., Riccardo E. Zich</i>	
Measuring and Modelling the Scattering Parameters of the Wet Radome of the Swiss Weather Radars.....	3142
<i>Philipp J. Schmid, Maurizio Sartori, Marco Gabella, Matthias Renker, Mikko Kotiranta, Axel Murk</i>	
Modeling Atmospheric Effects on Over Land UHF Propagation Links.....	3147
<i>Abby Anderson, Christopher R. Anderson, Henry S. Owen</i>	
Antennas and Power Measurement Techniques for Wireless Applications	3152
<i>Walid El Hajj, Juan Antonio Del Real, Tsitoha Andriamiharivolamena, Bob Buxton, Nawfal Asrih</i>	
GPS Interference Cancellation Using Magneto-Dielectric Metamaterials	3155
<i>Amir Jafargholi, Romain Fleury</i>	
Compact Antenna Solutions for Data Transmission Using Fat-Intrabody Communication (Fat-IBC).....	3160
<i>Rossella Gaffoglio, Giorgio Giordanengo, Giuseppe Musacchio Adoriso, Bappaditya Mandal, Johan Engstrand, Robin Augustine, Giuseppe Vecchi</i>	
Dual-Polarized Connected-Slot Array Technological Demonstrator Targeting a 5:1 Bandwidth.....	3164
<i>Stefan Varault, José Zevallos, Nicolas Cheval, Valérie Rananjason</i>	
A Compact Implantable Camera Integrated MIMO Antenna with Polarization Diversity for Wireless-Capsule-Endoscopy Applications	3168
<i>Muhammad Qamar, Kamil Yavuz Kapusuz, Mohamed A. Thaha, Akram Alomainy</i>	
Stretchable Multi-Band Radio Frequency Sensor for Strain Measurement.....	3173
<i>Zaynab Attoun, Youssef Tawk, Joseph Costantine, Elie Shammas</i>	
CubeSat Formation Antenna Array Synchronization for GNSS-R.....	3175
<i>Laurent Paucot, Elliott Hubin, Maxime Drouguet, Volodymyr Kudriashov, Jan Thoemel, Christophe Craeye</i>	
SIW Slot Leaky-Wave Antenna Using Low-Index Metamaterial.....	3180
<i>Amir Jafargholi, Romain Fleury</i>	

Wideband Dual-Polarized Lens Antenna for Future mm- Wave Applications	3185
<i>Valentina Cicchetti, Yang Hao</i>	
Multibeam Compact Dual Reflectarray Antenna for High-Throughput Satellites in Ka-Band	3188
<i>Daniel Martinez-De-Rioja, Eduardo Martinez-De-Rioja, Yolanda Rodriguez-Vaqueiro, Antonio Pino, Carlos Mosquera, Jose A. Encinar, Giovanni Toso</i>	
Performance Estimation of In-Vessel Resonant Communications	3192
<i>Vitalii Kirillov, Dmitry Kozlov, Holger Claussen, Senad Bulja</i>	
Long Slot Dielectric-Loaded Periodic Leaky-Wave Antenna Based on 3D Printing Technology.....	3196
<i>Ali Araghi, Mohsen Khalily, Rahim Tafazolli</i>	
Textile Waveguide Antennas for On-Body Sensor and Communication Systems.....	3199
<i>Davorin Mikulic, Davor Bonefacic, Juraj Bartolic, Zvonimir Šipuš</i>	
Exploring Uniformity of Reverberation Chambers: Insights from Antenna Reflection Coefficient	3204
<i>N. Farid, J. Fridén, M. V. Ivashina, A. B. Smolders, L. A. Bronckers</i>	
Fading Distribution Model for the Maritime Radio Channel	3208
<i>Torbjörn Ekman</i>	
Development of Tissue Emulatory Models/Phantoms of Lungs at Microwave Frequency for Acute Respiratory Distress Syndrome	3213
<i>Laya Joseph, Arvind Selvan Chezhian, Theimo Voigt, Mauricio Perez, Robin Augustine</i>	
On Enhancing Efficiency of Transmission in Imaging Systems by Wearable Scatterers	3218
<i>Ludovica Tognolatti, Cristina Ponti, Giuseppe Schettini</i>	
Aperture Distribution Method for Array-Fed Reflectors: A System Level Performance Case Study.....	3221
<i>Francesco Lisi, Julien Maurin, Hervé Legay, Piero Angeletti, George Goussetis</i>	
Tunable Rectangular Waveguide Bandpass Filter Based on Plasma Technology.....	3226
<i>Atefeh Ashrafiyan, Fatemeh Sadeghikia, Jalil A Rashed Mohassel, Mohamed Himdi, Mirko Magarotto</i>	
A Greedy Approach for Reducing Data in Near-Field Measurements	3230
<i>Maria Antonia Maisto, Antonio Ciociola, Raffaele Solimene</i>	
A Penta-Band Shared Aperture Antenna with a Very Ratio Frequency for 5G and B5G Smartphone Applications.....	3234
<i>Amjaad T. Altakhaineh, Saqer S. Alja'afreh, Chaoyun Song, Yi Huang</i>	
Robotic Antenna Characterization System Based on Wideband FMCW Transceiver Modules	3239
<i>Kristof Dausien, Michael Kleinschmidt, Ilona Rolfes, Nils Pohl, Jan Barowski</i>	
Characterization of a D-Band Active Transmitarray System for Efficient Point-to-Point Links.....	3244
<i>Francesco Foglia Manzillo, José Luis González-Jiménez, Abdelaziz Hamani, Alexandre Siligaris, Antonio Clemente</i>	
A Wideband 3D Printed Digital Metasurface Transmitarray Antenna for mm-Wave Applications.....	3249
<i>Gazali Bashir, Amit K. Singh, Ankit Dubey</i>	
Antenna Digital Beamforming on Spire's GNSS-Reflectometry CubeSat Constellation	3254
<i>Philip Jales, Takayuki Yuasa, Surabhi Guruprasad, Oleguer Nogués-Correig, Jessica Cartwright</i>	

Comparison Between ERA5 Cloud Parameters and Rainfall Rate in Madrid.....	3259
<i>Ana Benarroch, Gustavo A. Siles, Mishel Cuiza, José Manuel Riera</i>	
Multistable Structures for Deployable and Reconfigurable Antennas.....	3263
<i>Maria Sakovsky, Joseph Costantine, Youssef Tawk</i>	
Compact Ka Band Orthomode Transducer with Conical Horn Antenna.....	3267
<i>Simon Fojtik, Samuel Travnicek, Pavel Hazdra, Zdenek Hradecky, Jan Kracek</i>	
Tiled Subarray Design for Multibeam Joint Communication and Sensing	3272
<i>Hadi Alidoustaghdam, André Kokkeler, Yang Miao</i>	
A Compact High-Gain 28 GHz Antenna Array for Beyond 5G Wireless Networks	3277
<i>Ieuan Meates, Shaker Alkaraki, Muhammad Aslam, Qammer Abbasi, Andrew Evans, Syeda Fizzah Jilani</i>	
Large-Scale Site Diversity Experiment in Ljubljana and Budapest at Ka-band with Alphasat Satellite.....	3280
<i>Arsim Kelmendi, László Csurgai-Horváth, Mihael Mohorcic, Aleš Švigelj, Tomaž Javornik, Andrej Hrovat</i>	
Graph Neural Network Based 77 GHz MIMO Radar Array Processor for Autonomous Robotics.....	3285
<i>Ransara Wijitharathna, Pahan Mendis, Rahal Perera, Punsara Mahawela, Nilan Udayanga, Chamira U. S. Edussooriya, Arjuna Madanayake</i>	
Empirical Validation of the Impedance-Based RIS Channel Model in an Indoor Scattering Environment.....	3290
<i>Placido Mursia, Taghrid Mazloun, Frédéric Munoz, Vincenzo Sciancalepore, Gabriele Gradoni, Raffaele D'Errico, Marco Di Renzo, Xavier Costa-Pérez, Antonio Clemente, Geoffroy Lerosey</i>	
Measurements of Reconfigurable Intelligent Surface in 5G System Within a Reverberation Chamber at mmwave.....	3294
<i>L. Bastianelli, R. Diamanti, E. Colella, V. Mariani Primiani, F. Moglie, M. A. Toubal, M. Odit, J.-B. Gros, Y. Nasser, G. Lerosey, L. Santamaria, A. Allasia, M. Crozzoli, M. Boldi, E. Zimaglia, V. Lieti, M. Colombo, D. Micheli</i>	
Contiguous Broadband Circularly Periodic High Impedance Surface Integrated with a Spiral Antenna	3298
<i>Kshitij Lele, Chris Bartone</i>	
A Novel Frequency-Selective Surface Generating Two-Band Pseudo-Elliptic Frequency Response	3303
<i>Lyudmila Mospan, Dmitry Zelenchuk</i>	
Ultra Wide Dynamic Range High Power RF Rectifier.....	3306
<i>Xiaochen Yu, Jinyao Zhang, Minzhang Liu, Yi Huang, Ta-Jen Yen, Jiafeng Zhou</i>	
Analysis of the Effects of Rainwater Covered Bumper on the Automotive Radar Signals	3310
<i>Nancy Modi, Busineni Mahesh Kumar, Jayanta Mukherjee</i>	
Impact of the Unit Cell Distribution of 1-D Dynamic Metasurface Antennas on the Performance of a Computational Imaging System.....	3315
<i>Guillermo Alvarez-Narciandi, Maria Garcia-Fernandez, Okan Yurduseven</i>	
Huygens Principle Imaging Method Powered by Deep Learning for Brain Stroke Classification.....	3320
<i>Moein Movafagh, Navid Ghavami, Gianluigi Tiberi, Mirco Cosottini, Sandra Dudley-McEvoy, Mohammad Ghavami</i>	

Design of an UWB Conformal Antenna for Wireless Capsule Endoscopy	3325
<i>Liu Chang, Abdullah Alshammari, Abdulwahab Alghamdi, Amjad Iqbal, Ismail Ben Mabrouk</i>	
A Novel Reconfigurable Planar Switched-Beam Filtenna with 360-Degree Beam Scanning.....	3330
<i>Behrooz Rezaee, Hossein Sarbandi Farahani, Wolfgang Bösch</i>	
Low-Profile Super-Realised Gain Antennas.....	3333
<i>James Moore, Aaron M. Graham, Manos M. Tentzeris, Vincent Fusco, Stylianos D. Asimonis</i>	
Magnetolectric Dipole Antenna Extending NLOS Short-Distance Vehicular Communication with Orbital Angular Momentum Modes	3337
<i>Marc Jofre, Youness Akazzim, Md. Asaduzzaman Towfiq, Bedri A. Cetiner, Sebastián Blanch, Jordi Romeu, Luis Jofre-Roca</i>	
A Comparative Study of Decoupling Techniques for Waveguide Slot Array Antennas	3341
<i>Mu Fang, Jian Yang, Ashraf Uz Zaman</i>	
Improving the Strut Modelling of the European Space Agency Deep Space Antennas to Evaluate Efficiency and Sidelobe Impact.....	3345
<i>Davide Arenare, Fabio Pelorossi, Filippo Concaro, Marco Pasian</i>	
Biodegradable Implant Antenna Utilized for Real-Time Sensing Through Genetically Modified Bacteria.....	3349
<i>Ahmet Bilir, Sema Dumanli</i>	
Antenna Position Layout and Frequency Impact on Tumor Detection in Microwave Breast Imaging	3353
<i>Raquel A. Martins, João M. Felício, Jorge R. Costa, Carlos A. Fernandes</i>	
Tailoring Surface Impedance for Cascaded Cylindrical Metasurfaces.....	3358
<i>Zvonimir Sipus, Marko Bosiljevac</i>	
Metal-Only Additive-Manufactured Geodesic Lens Antennas for the mmwave Band	3363
<i>J. Rico-Fernández, P. Castillo-Tapia, S. Clendinning, Q. Chen, O. Quevedo-Teruel</i>	
Pinwheel-Shaped Polarizer for Generating Dual-Circularly Polarized Conical Radiation Patterns in the Ka-Band.....	3368
<i>J. Melendro-Jimenez, P. Sanchez-Olivares, A. Tamayo-Dominguez, S. Garcia-Martinez, J. L. Masa-Campos</i>	
Analytical Fitting of Dielectric Response of Basal Cell Carcinoma	3372
<i>Enrico Mattana, Matteo Bruno Lodi, Giuseppe Mazarella, Alessandro Fanti</i>	
Challenges and Limits of Designing Wideband and Efficient Compact Superdirective Antenna	3376
<i>Abdellah Touhami, Sylvain Collardey, Ala Sharaiha</i>	
Stationarity of Multiband Channels for OTFS-Based Intelligent Transportation Systems.....	3380
<i>Danilo Radovic, Faruk Pasic, Markus Hofer, Thomas Zemen, Christoph F. Mecklenbräuker</i>	
Influence of the Incidence Angle on the Focusing of Luneburg Lens Partially Covered with Graphene	3385
<i>Iryna O. Mikhailikova, Sergii V. Dukhopelnykov, Mario Lucido</i>	
Curved Electromagnetic Skins for Urban Scenarios	3389
<i>M. Beccaria, A. Freni, A. Mazzinghi, A. Massaccesi, P. Pirinoli</i>	

Progressive Ultra- Wideband Circularly Periodic High Impedance Surface Integrated with a Spiral Antenna	3394
<i>Kshitij Lele, Chris Bartone</i>	
Machine Learning Approaches for EM Signature Analysis in Chipless RFID Technology	3399
<i>Nadeem Rather, Roy B. V. B. Simorangkir, John L. Buckley, Brendan O'Flynn, Salvatore Tedesco</i>	
Glide-Symmetric Reconfigurable Substrate-Integrated Holey Waveguide	3404
<i>Boris Fischer, Julien Sarrazin, Guido Valerio</i>	
Propagation Modeling in an Indoor Environment at Sub-THz Frequencies Based on Ray Tracing	3408
<i>Nektarios Moraitis, Konstantina S. Nikita</i>	
Extending Spectral Factorization to the 2-D Mask-Constrained Power Synthesis of Shaped Beams with Arbitrary Footprints	3413
<i>Giada M. Battaglia, Andrea F. Morabito, Roberta Palmeri, Tommaso Isernia</i>	
Investigating the Interference Induced by NGSO Constellations on GSO System Ground Stations: A Simulation Approach	3416
<i>Enrico Polo, Luis Emiliani, Lorenzo Luini</i>	
Single Layer Cavity-Backed Filtenna with Ultra-Wide Out-of-Band Suppression	3421
<i>Behrooz Rezaee, Wolfgang Bösch</i>	
mmwave Channel Sounding for Vehicular Communications	3425
<i>Nicholas Attwood, François Gallee, Patrice Pajusco, Marion Berbineau</i>	
Thinned Connected Slot Array Design Using Higher Symmetries (Invited Paper).....	3429
<i>Christos Monochristou, Ronan Sauleau, Mauro Ettore</i>	
Implementation of a Novel Triband Antenna Array in a FR1/FR2 5G-NR System	3433
<i>T. H. Brandão, E. S. Lima, H. R. D. Filgueiras, S. Arismar Cerqueira</i>	
A WiFi-Based System for Ice Monitoring in Harsh Environments Using 2.7 GHz Microwave Sensors	3437
<i>Dima Kilani, Aaryaman Shah, Fatemeh Niknahad, Mohammad H. Zarifi</i>	
Compact 868 MHz RFID-Based Antenna for Queen Bee Identification and Location Inside Hives	3440
<i>Laura Pérez Beltrán, José Lorenzo López, Javier Fernández Caballero, Marta Cabedo Fabres, Miguel Ferrando Bataller, Leandro Juan-Llácer, Manuel Delgado-Restituto</i>	
Wideband Low-Profile Circularly Polarized All-Metal Antenna for Triton Exploration.....	3445
<i>Laetitia Niyonzima, Pauline Vryghem, Modeste Bodehou, Christophe Craeye, Sébastien Le Maistre</i>	
Miniaturization of Wireless Power Transfer for Implantable Devices Using Voltage Doubler Rectifier	3450
<i>Abdenasser Lamkaddem, Ahmed El Yousfi, Vicente González Posadas, Daniel Segovia Vargas</i>	
Matching Network Elimination in Multiband Metasurface-Structured Rectennas for Wireless Power Transfer and Energy Harvesting	3454
<i>Wenzhang Zhang, Rui Pei, Jinyao Zhang, Bintao Hu, Jiafeng Zhou</i>	
Roof-Glass Integrated Antenna for Vehicular GNSS Applications.....	3458
<i>Hanieh Aliakbari, Xiaotian Li, Christian Lötzbäck, Buon Kiong Lau</i>	

Fast Indoor Radio Propagation Prediction Using Deep Learning.....	3463
<i>Andrés J. Flórez-González, Carlos A. Viteri-Mera, Wilson O. Achicanoy-Martínez</i>	
Efficient Wireless Power Transfer to an Ultra-Miniaturized Antenna for Future Cardiac Leadless Pacemaker	3468
<i>Farooq Faisal, Ahmed Moulay, Mohamed Chaker, Tarek Djerafi</i>	
Increasing the Efficiency-Bandwidth Product and Impedance Bandwidth of Electrically-Small Antennas Through Parametric Space-Time Variation.....	3472
<i>Zachary Fritts, Amirhossein Babaei, Steve M. Young, Anthony Grbic</i>	
Temperature-Dependent Electrical Characterization of a Thermally Sensitive Hepatic Tumor Phantom.....	3476
<i>Ahmet Bilir, Sema Dumanli</i>	
Best Practices for Accurate Results Using Numerical Solvers for Microwave Body Screening.....	3481
<i>Raquel A. Martins, Daniela M. Godinho, João M. Felício, Matteo Savazzi, Jorge R. Costa, Raquel C. Conceição, Carlos A. Fernandes</i>	
Multi-Directional Leaky-Wave Antenna with Independent Beam-Scanning Laws.....	3486
<i>Francis Baccin-Smith, Shulabh Gupta</i>	
Additively Manufactured Horn Antennas.....	3490
<i>Jeffrey Fordham, Jon Swarner, Eric Kim, Griffin Fox, Corey Agan</i>	
On-Chip mm-Wave Artificial Magnetic Conductor Backed Dipole Antenna on Low-Ohmic Substrate	3494
<i>Armen Harutyunyan, Padmanava Sen</i>	
X-Band Reconfigurable Phase Shifters Based on SIW and Liquid Metal Technologies.....	3499
<i>Shaker Alkaraki, Quan Wei Lin, Syeda Fizzah Jilani, Hang Wong, Alejandro L. Borja, Shiyang Tang, Yi Wang, James R. Kelly</i>	
Traveling-Wave Fed Dielectric Rod Antenna for 3D Scanning MIMO Sensor.....	3504
<i>Alexander Khripkov</i>	
Contactless Respiration Variability Detection and Accuracy Test Using UWB Radar.....	3509
<i>Muhammad Farooq, Hira Hameed, Ahmad Taha, Muhammad Imran, Qammer H. Abbasi, Hassan Tahir Abbas</i>	
Analyzing the Performance of Phased Array Geometries with Aperture Projection Analysis	3513
<i>D. Elliott Williamstyer, Ali Hajimiri</i>	
Sensitivity of the Dielectric Spectroscopy with the Microwave Thermal Ablation Antenna to the Immersion Depth and Longitudinal Dimension of the Measured Media	3518
<i>Klementina Vidjak, Marta Cavagnaro</i>	
A Systematic Design Method of Miniaturizing Microstrip Patch Antenna Using Theory of Characteristic Modes	3523
<i>Angel Abreu, Mahrukh Khan</i>	
Analysis of Return Loss with an Uncooled Coaxial Monopole Antenna During Microwave Ablation	3527
<i>Federico Cilia, Lourdes Farrugia, Julian Bonello, Charles V Sammut, Iman Farhat, Evan Joe Dimech</i>	
Virus Detection in the Microwave Regime Through an Antenna Workbench.....	3532
<i>Enderson Falcón-Gómez, Vicente Gonzalez-Posadas, Daniel Segovia-Vargas</i>	

Supervised Learning Applied to Microwave Imaging System Calibration	3536
<i>Ben Martin, Seth Cathers, Ian Jeffrey, Colin Gilmore</i>	
Terahertz Microstrip Leaky-Wave Antenna for WR1.0 Band.....	3540
<i>Thomas Haddad, Rihab Hamad, Hacer Kaya, Mohamed Damerji, Andreas Stöhr</i>	
Near Field Phase Recovery Exploiting Only One Measurement Surface and a Smart Warping Sampling Strategy	3544
<i>Giada M. Battaglia, Tommaso Isernia, Maria A. Maisto, Andrea F. Morabito, Roberta Palmeri, Raffaele Solimene</i>	
Numerical Study of the Dielectric Properties of Lung Tissue Measured with Two Different Open- Ended Coaxial Probes.....	3547
<i>Fabiana Capitano, Klementina Vidjak, Flavia Liporace, Marta Cavagnaro</i>	
An Accurate Semi-Analytical Model for Periodic Tunable Metasurfaces Electromagnetic Response.....	3552
<i>Savvas I. Raptis, Alexandros Papadopoulos, Loizos Symeonidis, Antonios Lalas, Christos K. Liaskos, Konstantinos Votis, Dimitrios Tzovaras, Traianos V. Yioultsis</i>	
Wireless Re-Configurable Intelligent Surface for Sub 6 GHz 5G Frequency	3557
<i>Vladimir Lenets, Uladislav Popov, Mikhail Odit, Jean-Baptiste Gros, Geoffroy Lerosey</i>	
Rigorous Susceptibility-Based Design of Generalized Huygens' Metasurface Radomes.....	3562
<i>Amit Shaham, Ariel Epstein</i>	
Developments in Open-Source Tools for Microwave Breast Imaging	3567
<i>Declan O'Loughlin</i>	
On Solving Inverse Source Problems with Metasurfaces Performing Analog Computations	3570
<i>Mario Phaneuf, Puyan Mojabi</i>	
Microwave Inversion of Measured S-Parameters Using a Thin-Wire Antenna Model	3575
<i>Lucas Banting, Ian Jeffrey, Joe Lovetri</i>	
Wideband Array Antenna with Single-Layer Feeding Network at Ka-band.....	3579
<i>Ying Sun, Peiye Liu, Ondrej Franek, Gert Frølund Pedersen, Shuai Zhang</i>	
Effect of Phase Errors on Performance of Ka-Band Reflectarray with DRA Unit Cells.....	3583
<i>I. Munina, I. Grigoriev, G. O'Donnell</i>	
Experimental Evaluation of V2X Connectivity Technologies with V2X Channel Models	3587
<i>Dereje-Mechal Molla, Chadli Hadji, Sassi Maaloul, Marion Berbineau, Massamaesso Narouwa, Léo Mendiboure, Hakim Badis</i>	
A mmwave Leaky-Wave Antenna for Efficiency Enhanced Near-Field Wireless Power Transfer and Communication	3592
<i>Shan Han, Miguel Poveda-García, Yuan Ding, George Goussetis, Lei Wang</i>	
Wideband Dielectric Characterization of Biological Tissues and Realistic Phantom Preparation at Microwave Frequencies.....	3597
<i>Flavia Liporace, Klementina Vidjak, Marco Di Cristofano, Marta Cavagnaro</i>	
Compact Circularly Polarized Antenna Based on Gapwaveguide for SATCOM Applications	3601
<i>Raha Roosefid, Jian Yang, Ashraf Uz Zaman</i>	
Robotic Arm-Based Antenna Metrology System for Aerospace Applications	3605
<i>Marie Piasecki, Bryan Schoenholz, James Downey, Christine Chevalier, Kevin Lambert</i>	

Analog Self-Interference Cancellation by Means of a Synchronised Signal Injection.....	3609
<i>Sarmad Ozan, Geoffrey Hilton, Tommaso Cappello, Mark Beach</i>	
Estimating the Achievable Efficiency and Bandwidth of Small Terminal-Integrated Inverted-F Antennas Using Machine Learning	3612
<i>Julian Roqui, Alain Pegatoquet, Leonardo Lizzi</i>	
Realizing Flat-Top Radiation Pattern with Sharp Cutoff for Reducing Lobing Fades	3616
<i>Mohammad Hossein Amini, Amirhossein Ghasemi, Maryam Khodadadi, Alireza Mallahzadeh, Mohsen Khalily</i>	
Analysis of Radiating Transverse Slot Unit Cell and Reflection Cancellation at D-Band	3621
<i>Usman Shehryar, Jian Yang, Ashraf Uz Zaman</i>	
Grid-Free Harmonic Retrieval and Model Order Selection Using Convolutional Neural Networks	3626
<i>S. Schieler, S. Semper, R. Faramarzagangari, M. Döbereiner, C. Schneider, R. Thomä</i>	
Reconfigurable Intelligent Surfaces for THz: Hardware Design and Signal Processing Challenges	3631
<i>George C. Alexandropoulos, Antonio Clemente, Sérgio Matos, Ryan Husbands, Sean Ahearne, Qi Luo, Verónica Lain-Rubio, Thomas Kürner, Luís M. Pessoa</i>	
Integral Equation-Based Solver for the Simulation of Metasurface Designs	3636
<i>Hans Schreckenbach, Chen Niu, Nima Chamanara, Andre Fecteau, David Abraham, Jonatan Aronsson</i>	
Brain Stroke Microwave Diagnostics in Children Through a Nonlinear Inverse-Scattering Technique	3639
<i>Valentina Schenone, Alessandro Fedeli, Costanza Parodi, Igor Bisio, Andrea Sciarrone, Andrea Rossi, Fabio Lavagetto, Andrea Randazzo</i>	
Learning-Based Procedures for Inverse Design of Electromagnetic Devices: A Preliminary Investigation	3644
<i>R. Palmeri, A. Yago Ruiz, R. Scapatucci, T. Isernia, L. Crocco</i>	
Small On-Metal Passive UHF RFID Transponders with Long Read Ranges.....	3648
<i>Mohamed Räsänen, Jari Holopainen, Jan Bergman, Matti Kuosmanen, Ville Viikari</i>	
An Overview of the Potential of Compressed Sensing in Antenna Measurements	3652
<i>Adrien A. Guth, Dirk Heberling</i>	
Bandwidth Manipulated Leaky-Wave Antenna Using a Sinusoidal Ridge in Folded Substrate Integrated Waveguide	3657
<i>Adan Simon, Samuel Rotenberg, George Goussetis, Lei Wang</i>	
D-Band Absorber Comprising Tantalum Nitride-Based Resistively-Loaded High Impedance Surfaces	3662
<i>Rana Muhammad Hasan Bilal, Michele Borgese, Simone Genovesi, Giuliano Manara, Filippo Costa</i>	
Beam Steering Performance Improvements Using a Layered Permittivity Dielectric	3667
<i>Stefan Andersson, Jari Holopainen, Matti Kuosmanen</i>	
On the Scanning Properties of Bidimensional Discrete Lens Antennas with 1, 3, Infinite Focal Points.....	3672
<i>Giovanni Toso, Piero Angeletti</i>	

Indoor Wireless Signal Modeling with Smooth Surface Diffraction Effects.....	3676
<i>Ruichen Wang, Samuel Audia, Dinesh Manocha</i>	
An Investigation into the Effects of Multi-Path and NLOS Propagation on Antenna-Based Soil Moisture Sensors in the RFID Band.....	3681
<i>James Stephenson, Mahmoud Wagih</i>	
Compact Circularly Polarized Patch Antenna with Enhanced Axial Ratio and Impedance Bandwidth	3686
<i>Hanieh Ahmadi, Chunxu Mao, Pei Xiao</i>	
Contactless Impedance and Far-Field Characterization of Electrically Small Antennas	3690
<i>Majid Manteghi</i>	
Dielectric Differences in Biological Tissues: A Comparison Between Excised and Non-Excised Tissues Under the Influence of Chemotherapy.....	3694
<i>E Fernandez-Aranzamendi, Sandra Santiago-Mesas, Gelber-Eguiluz, E San-Román, P Castillo-Aranibar, Daniel Segovia-Vargas</i>	
Microwave Sensor for Detection of Optical Transparent Foreign Body in Soft Tissue: Eye	3698
<i>Soroush Rasti Boroujeni, Javad Ebrahimizadeh</i>	
Ultra-Miniature Circularly Polarized Antenna with Omni-Directional Pattern for Sat-IoT	3702
<i>Serge Bories, Jean-François Pintos, Marwan Jadid, Christophe Delaveaud</i>	
Mechatronic Phase-Control Reflector System with in-Plane Axis Control.....	3707
<i>Hrishit Mohan Das, Keigan Macdonell, Shulabh Gupta</i>	
Front-End Mismatching, Mutual Coupling, Bandwidth, Transmission Line Noise, and SNR.....	3710
<i>Majid Manteghi, Sina Moradi</i>	
Adaptive Weighting Scheme for Multi-Objective Optimization in Metasurface Antenna Design	3713
<i>Marcello Zucchi, Amedeo Guida, Giuseppe Vecchi</i>	
Multi-Feed Resonant Cavity Antenna with In-Antenna Power Combination for mm-Wave Communication	3717
<i>Khushboo Singh, Manik Attygalle, Dushmantha Thalakatuna, Karu Esselle</i>	
Enhancing Signal Transmission in Energy-Saving Glass Through Tri-Bandpass Frequency Selective Surface Design.....	3722
<i>Zifeng Wan, Farhad Ghorbani, Yi Huang, Jiafeng Zhou</i>	
E-Band Measured Propagation Characteristics for Urban Backhaul Communications.....	3727
<i>Bofan Wu, Haifeng Mou, Hang Yang, Zhenyang Guo, Xianbing Zou, Xiang Gao</i>	
A Wideband Aperture-Shared Dual-Polarized End-Fire Antenna with Low Profile and High Isolation.....	3732
<i>Liangying Li, Shaowei Liao, Yinglu Wan, Wenquan Che, Quan Xue</i>	
X-Band Receiving Phased Array with Digital Beamforming Using RFSoc.....	3737
<i>Gong Chen, Peizhuo Yang, Fujiang Lin, Koen Mouthaan</i>	
Preliminary Description of a 2D Near-Field Electromagnetic Imaging Database.....	3742
<i>Seth Cathers, Ben Martin, Noah Stieler, Ian Jeffrey, Colin Gilmore</i>	
Influence of the Atmospheric Plasma Sheath on the RCS of a Hypersonic Reentry Vehicle	3745
<i>Florian Mitanhey, Pascal Pagani, Vivien Loridan, Pierre Bonnemason, Claire Latappy</i>	

Breaking the Myth of RIS: Investigating the Role of User Equipment for Achieving Robust mmwave Wireless Channel Links Under NLOS Environments.....	3750
<i>Bumhyun Kim, Wonbin Hong</i>	
An L-Band Receiving Array with Full Digital Simultaneous Quad-Polarization Beamforming.....	3755
<i>Peizhuo Yang, Gong Chen, Jiahao Wang, Koen Mouthaan</i>	
Generation of Dual Band OAM Wave Using Single Patch Antenna for WLAN/WiMAX Applications.....	3759
<i>Umar Fayyaz, Shahab Ahmad Niazi, Abdul Aziz, Rifaqat Hussain, Akram Alomainy</i>	
A Modified Channel Model for the MIMO System Deployed RIS Elements with Imperfect Surface.....	3762
<i>Shaoxuan Xue, Jianing Zhao, Weikang Yang</i>	
TX/RX Terminal Based on Metascreen Technology for Ka-Band Satcom with Dual Switchable Polarization.....	3765
<i>Francesco Caminita, Cristian Della Giovampaola, Massimo Nannetti, Gabriele Minatti, Nicola Bartolomei, Enrica Martini, Benedikt Byrne, Giovanni Toso, Stefano Maci</i>	
Design and Investigation of 2x2 Dielectric Resonator Antennas Array for sub-THz Applications.....	3770
<i>Muhammad Faisal Bashir, Matthias Wietstruck</i>	
Highly Efficient Polarization-Insensitive EM Energy Harvester.....	3774
<i>Majid Amiri, Mehran Abolhasan, Negin Shariati, Justin Lipman</i>	
Beam-Steerable Microstrip-Line Based Leaky Wave Antenna with Reconfigurable Slits	3779
<i>Yujiro Kushiyama</i>	
Investigation of Correlation Between Absorbed Power Density and Incident Power Density for User Equipment Antennas at Sub-THz Frequencies.....	3782
<i>Ming Yao, Wen Fu, Gert Frølund Pedersen, Shuai Zhang</i>	
Scenario Classification and Channel Modeling for MIMO Communications in Dense Urban Street Scenarios	3786
<i>Hancheng Li, Chen Huang, Cheng-Xiang Wang, Junling Li</i>	
Scenario Classification and Channel Modeling for MIMO Communications in Suburban Road Scenarios	3791
<i>Deyuan Zhao, Chen Huang, Cheng-Xiang Wang, Junling Li</i>	
The Design of Re-Imaging Optics for Passing Several Beams Through Small Cryostat Windows	3796
<i>Takaho Masai, Hiroaki Imada, Alvaro Gonzalez</i>	
Channel Characterization and Modeling for Wireless MIMO Communication Systems in Intersection Scenarios.....	3801
<i>Deyuan Zhao, Chen Huang, Cheng-Xiang Wang, Junling Li, Zhongyu Qian, Wenqi Zhou</i>	
Automated Design and Characterization of a Scalar Metasurface Antenna Radiating a Linearly-Polarized Broadside Beam	3806
<i>Marcello Zucchi, Andrea Scarabosio, Francesco Verni, Lucia Teodorani, Giorgio Giordanengo, Giuseppe Vecchi</i>	
Ray-Tracing Based Channel Modeling and Characteristics Analysis for LEO Satellite-to-Ground Systems.....	3809
<i>Kaiyuan Zhang, Songjiang Yang, Yinghua Wang, Jie Huang, Cheng-Xiang Wang</i>	

Multiple-User Full-Duplex Hybrid Beamforming Design for mmwave Systems with a Joint Interference Cancellation Design	3814
<i>Xinping Xia, Jianing Zhao, Xuenan Ni, Yunfei Wang, Jianyi Zhou</i>	
Novel Risley Prism Design Approach with Improved Side Lobe Levels Using Multilayer Transmit-Arrays	3819
<i>Sérgio Matos, Nelson J. G. Fonseca, João C. Serra, João Felício, Jorge Costa, Carlos Fernandes</i>	
Multifunctional Linear Dichroism and Polarization Transforming Metasurface for mm-Wave Application	3824
<i>Ahsaan Gul Hassan, Anum Zulqarnain, Muhammad Danial Shafi, Adnan Nadeem, Sultan Shoaib, Imran Shoaib, Mohaira Ahmad, Noshewan Shoaib</i>	
Strategies for Enhancing the Gain Bandwidth of Fabry-Pérot Cavity Antennas: A Review of Recent Advances	3828
<i>Ahmad T. Almutawa, Filippo Capolino</i>	
Ka-Band Phased Antenna Array Concept for High-EIRP Satellite Connections.....	3831
<i>Stefano Moscato, Alessandro Fonte, Steven Caicedo Mejillones, Alessandro Dicarlofelice, Emidio Digiampaolo, Piero Tognolatti, Emilio Arnieri, Giandomenico Amendola, Luigi Boccia, Matteo Oldoni</i>	
Experimental Analysis of Physical Interacting Objects of a Building at mmwave Frequencies	3836
<i>Hedieh Khosravi, Xuesong Cai, Fredrik Tufvesson</i>	
An Electromagnetic-Compliant Scattering Model for Reconfigurable Intelligent Surfaces	3841
<i>Hussein Ezzeddine, Abdelwaheb Ourir, Julien De Rosny</i>	
Non-Volatile Memristor-based 1-bit Reconfigurable Intelligent Surface Towards a Greener 6G	3846
<i>Mohamed Elsaid, Luís M. Pessoa</i>	
Improved Performance of a 1-Bit RIS by Using Two Switches Per Bit Implementation.....	3851
<i>Fábio Cardoso, Sérgio Matos, Luís Pessoa, Antonio Clemente, Jorge Costa, Carlos Fernandes, João Felício</i>	
Estimating the Signal Strength for Microwave Breast Cancer Detection with a Magnetic Near-Field Applicator in Air.....	3854
<i>Christoph J. Salomon Nikola Petrovic, Per Olov Risman</i>	
A Wideband Circularly Polarized Filtering Array Antenna Using Dual-Layer Circular Cross Slotted Patch	3858
<i>Min Wang, Hao Zhang, Nan Hu, Wenqing Xie, Shulin Chen, Zhengchuan Chen</i>	
A Novel Substrate Integrated Broadband Dielectric Resonator Antenna (DRA) in SICL for Millimeter Wave Application	3861
<i>Naman Baghel, Soumava Mukherjee</i>	

Author Index