

Contents

Coplanar Waveguide with Elevated Center Strip Conductor Based on HR-Si Substrate.....	10
Miniaturization of Harmonics-suppressed Filter with Folded Loop Structure	14
Broadband Amplifier Gain Slope Equalization Filter.....	21
The PBG Filter Design	26
Optimization of the SAW Transducer Design by Probabilistic Global Search Lausanne	29
Design of Wideband Filter Using Split-ring Resonator DGS	33
Novel Trisection Cross-coupled Filter Based on Mixed Split-ring Resonators	37
Some Differences among HiFi, Tuned Amplifiers and Oscillators	41
X-band Low Phase Noise Quadrature CMOS VCO with Transformer Feedback	46
An Image Rejection Low Noise Amplifier for WLAN System.....	50
A 3-8 GHz Broadband Low Power Mixer	54
Frequency Synthesizer Architecture Design for DRM and DAB Receiver	59
Path Planning during the Geomagnetic Navigation	65
Simulation for a Distributed Phase-stable Synchronization System.....	68
A 2.5 GHz Voltage Controlled FBAR Oscillator.....	73
High Tunable Capacitor Using a Finger Structured Electrode	77
CPW-to-stripline Vertical via Transitions for 60 GHz LTCC SoP Applications	81
A Novel Ultra Wideband Transformer-feedback LNA	86
DDS Based Radar Signal Generator for Microwave Remote Sensing.....	90
Ambiguity Function of Chaotic Radar with Colpitts Oscillator.....	94
A Broadband Low Noise Amplifier Design	99
Reducing the Time Steps of FDTD Predictions of High-Q Cavities	103
Reduction of EMI and Mutual Coupling in Array Antennas by Using DGS and AMC Structures.....	106
Facilitating EMI/EMC Modeling by Predicting Voltage Interference in an EMI/EMC Environment by Two Wires as the Pick-up Model of EM Waves.....	111
Interaction between Magnetoresistor and Magnetotransistor in the Two-dimensional Folded Vertical Hall Devices	116
Multifunctional Piezomagnetic Ferrite Materials and Their Newly Acoustical and Vibration Control Devices	120
Development of Smart Antenna Array Signal Processing Algorithm for Anti-Jam GPS Receiver.....	125
Time Domain Studies of Ultra Wideband Dielectric Loaded Monopole Trans-receive Antenna System ..	132
Study and Improvement in Operational Characteristics of Mid Air Collision Aversion System (TCAS) .	137
Design of Three-layer Circular Mushroom-like EBG Structures	143
Bandwidth Enhancement of Single-feed Circularly Polarized Equilateral Triangular Microstrip Antenna	147
Design of Ultra-wideband Monopole Antenna with Band-notched and GPS Circular Polarization Characteristics	151

Small Antenna Measurement Facilities	157
Microstrip Antenna Design for Ultra Wideband Application by Using Two Slots	159
The GPS Antenna Design and Measurement	162
Shaping Design of Side-fed Offset Cassegrain Reflector Antennas	165
Planar Leaky-wave Antenna with Aperture Coupled Feed	170
Clover Polarimetric Detector — A Novel Design of an Ortho-mode Transducer at 150 and 225 GHz	173
Circular Polarization GPS Patch Antennas with Self-biased Magnetic Films	177
The Dipole Antenna Array Design with Balun Integration	182
Printed Digital Audio Broadcast Antennas	185
Two-layer Variable Slot Length Reflectarray	189
The Planar V-dipole Antenna Fed by Marchand Balun	192
A Single Feed Circularly Polarized Fractal Shaped Microstrip Antenna with Fractal Slot	195
Design and Implementation of Aperture Coupled Microstrip IFF Antenna	198
Design of the Spiral Monopole Antenna for Multi-band Mobile Communication and SAR Analysis	203
Design and SAR Measurement of the Trapezoidal Shape Antenna	208
Design of Dual-band PIFA for WLAN	212
12 GHz Planar Array Antenna for Satellite Communication	217
The Helical Antenna for Handset Design and Phantom Effect	221
MIMO Channel Model and Its Impact on the Channel Capacity	223
The Influence of the Climatic Peculiarities on the Electromagnetic Waves Attenuation in the Baltic Sea Region	227
OFDM System Location Determination with 4-element Antenna Array Using Frequency Domain Matrix Pencil (FDMP) Method	232
WCDMA 3D Location Determination with 3D Polarization Using Four 3-element Arrays	239
Location Determination for 2G/3G/4G Using Time Delay Matrix Pencil (TDMP) Method	246
A General Method for Cloaking Design	254
Waveguide Structures for Generation of Terahertz Radiation by Electro-optical Process in GaAs and ZnGeP ₂ Using 1.55 μ m Fiber Laser Pulses	260
The Role of Non-resonant Effect in Terahertz Transmission through Subwavelength Holes	265
Terahertz Response of Bulk and Nanostructured ZnO	269
Terahertz Time-domain Spectroscopy Signature of Animal Tissues	274
Interferometric ISAR Imaging on Squint Model	278
Avian Detection and Monitoring Using Frequency-stepped Chirp Signal Radar	284
Model of Man-made Target beneath Foliage Using PolInSAR	289
Comparison of Methods for Target Detection and Applications Using Polarimetric SAR Image	294
Localization in Near Field with Wideband Signal: Trade-off between Bandwidth and Number of Sensors	300
Investigation of Novel Surface Acoustic Wave (SAW) Gas Sensor Used in Sensor Network	302
Anisotropic Ultrafast Dynamics in Doped Y _{1-x} Ca _x Ba ₂ Cu ₃ O _{7-δ} Superconducting Thin Films	307
Growth of Carbon Nanotubes and Its Applications in Quantum Transport Behavior and Hydrogen Storage	312
Conductivities for Direct Current and Microwaves with Domain Wall Scattering for Ni-Fe Alloy Thin Films	315
Analysis of Equivalence of Standing-wave Dipole Model and Traveling-wave Monopole Model	318
Research on the Electromagnetic Interference of Antennas on the Satellite	323

New Method of Amplitude Modulation for Detection of Multipaction	328
Peculiar Radar Cross Section Properties of Metamaterials	334
Rectangular Waveguide Band Pass Filter with Capacitive Coupling Iris.....	337
Study on W-band PLL Frequency Synthesizer for Space Communications.....	342
Theoretical Analysis of Composite Right/Left-handed Coupled Transmission Line Resonators.....	346
Automatic Digital Modulation Recognition Using Feature Subset Selection	351
GL EM Mechanical and Acoustic Field Time Domain Modeling for Materials and Exploration with Dispersion	355
Three Component Time-domain Electromagnetic Surveying: Modeling and Data Analysis	366
Experimental Study on Noise Coupling among Multiple Power Areas through Edge Coupling and via Penetrations	372
Polarization-dependent Memory of Light via Ultrashort Pulse Laser Irradiation	376
Widening the Negative Effective Parameter Frequency Band of Resonant SNG Metamaterials.....	382
Microwave Photonic Devices and Their Applications to Communications and Measurements	388
Terahertz Emission from Two-dimensional Plasmons in High-electron-mobility Transistors Stimulated by Optical Signals.....	393
Resonant Band Gaps from a Narrow Slit at Terahertz Frequencies	397
Beam Pattern Investigation of Terahertz Quantum Cascade Lasers	401
Fabrication of Terahertz Coupling Structures by Electron Beam Lithography	405
Terahertz Sensing for Ensuring the Safety and Security	409
Live Electro-optic Imaging (LEI) for Real-time Analyses of Electric Near-fields over Microwave Circuits.....	414
Latest Trends in Millimeter-wave Imaging Technology	418
Trends in Next Generation Optical Access Networks and a Proposed Hybrid Optical/Wireless Wide-area Access Network	422
Development of Radio on Free Space Optics System for Ubiquitous Wireless	427
Photonic Millimeter-wave Generation and Distribution System Applicable to the ALMA Radio Telescopes.....	432
Microwave Dielectric Spectroscopy of Moist Soils in the Problem of Radar and Radiometric Remote Sensing of the Land	436
Estimation of Relative Permittivity of Shallow Soils by Using the Ground Penetrating Radar Response from Different Buried Targets	439
An Example of Holographic Radar Using at Restoration Works of Historical Building.....	444
Device Fatigue-fracture Caused by High Current Density	448
Numerical Analysis of Polarization Splitter Based on Vertically Coupled Microring Resonator.....	454
Performance of Multigrid in the Context of Beam Dynamics Simulations	460
Incorporation of the Continuous Spectrum in Closed Form Expressions for Layered Media Green's Functions	465
Energy-efficient Data Aggregation Protocol Based on Static Clustering for Wireless Sensor Networks ..	470
An Inverse-scattering Iterative Algorithm for EM and Seismic Imaging	474
AGILD WMT Ray-tracing Tomography and Its Application.....	480
Improved Isoparameter FEM for Plastic and EM Modeling.....	484
AGILD Seismic Modeling For Double-porosity Media	491
Electrical Field and Plasticity for Polar Materials	498
Study on Initial Stage of Gas Discharge by Numerical Method.....	503
Genetic Algorithms for Automated Design of the Multilayer Absorbers in the X-Band and Incident Angle Range.....	509

A Novel Analysis for Circular-groove Guide	514
PIC Simulation of Surface Charging in the Wake Zone.....	518
Physics Based Time Domain Simulation of Magnetic Recording Signal and Noise	522
The Study of PDF Control Technology for a Levitated Globe with Hybrid-excited Magnets	527
Study on a Novel Permanent Magnet Retarder for Vehicles	531
Research on a Maglev Ball Control System Based on DSP2812	536
Key Technologies for Lidar Detecting Stealth Targets.....	540
Enhancement of Microwave-assisted Organic Reactions Using Active Carbon	544
Passive Radar Imaging Based on Correlation Motion Compensation	548
Enhancement Gradient Pulse Waveforms in MR Tomography	554
Three-scale Radar Backscattering Model of the Ocean Surface Based on Second-order Scattering	559
Remote Sensing Image Compression Based on Classification and Detection	564
Far-field Diffraction Characteristics of a Short Pulse from a Slit with Gaussian form of Transmittance ..	569
Differential Theory with Genetic Algorithms in Design Periodic Absorbers.....	572
Optical Mode Parameters of the 2.3- μm Al(In)GaAsSb/GaSb Ridge-waveguide Laser Diodes and Laser Diode Arrays	577
Wavefront Phase Modulation of Cylindrical Vector Beam in Optical Focusing System.....	582
All-optical Switching Structure Using Nonlinear Photonic Crystal Directional Coupler	587
Studying of the Dipole Characteristic of THz from Photoconductors	592
Influence of External-cavity Length on the Route-to-chaos of Semiconductor Lasers under Optical Feedback	597
Longitudinal Relaxation Time Measurement in MR with Transient-state Magnetization	602
Anti-interference Design of Quasi-resonant Tank for Magnetic Induction Heating System.....	606
The Design of a Half-bridge Series-resonant Type Heating System for Magnetic Nanoparticle Thermotherapy	610
Fiber Grating Designing Method Based on Multi-subpopulation Competition Evolutionary Algorithm ..	615
A Compact Filter with Good Performance Based on Super-compact Multilayered Left-handed Transmission Line.....	619
The Research on Application of Composite Meta-material in Rectangular Waveguide	622
The Negative Parameters of Left-handed Materials Consisting of Granular Composite	626
An Inverse Model for Localization of Low-diffusivity Regions in the Heart Using Ecg/Mcg Sensor Arrays	630
Cloaking of Metallic Cube by Plasmonic Shell in Quasistatic Limit	636
Resonance as a Tool to Transfer Informations to Living Systems.....	640
Dual-beam Interferometric Laser Trapping of Rayleigh and Mesoscopic Particles	645
Development of Thin Soft Magnetic Amorphous Microwires for High Frequency Magnetic Sensors Applications	650
Design of Metamaterial Based-on Ferromagnetic Substrate	658
Lossless DNG-DPS Bilayer Structures for Tunneling and Zero Reflection	663
On the Study of Left-handed Coplanar Waveguide Coupler on Ferrite Substrate	667
The Effect of Cooling Systems on HTS Microstrip Antennas.....	672
GL Time Domain Modeling for EM Acoustic and Elastic Wave Field with Dispersion in Crystal and Porous Material.....	676
Multi-temporal Backscattering Behavior of Rice Crop Canopies Based on Dense Medium Model Simulations	685

A Study of Optimized Observation Configuration in Determining Sea Ice Thickness Using Multilayer Backscattering Model in Antarctica	690
Design and Optimization of Microstrip Interdigital Bandpass Filters with Impedance Matching	696
Author Index	702

Contents

Simple Multiband Antenna for Mobile Phone Application Based on a Dual-arm Monopole Structure . . .	716
Antennas Made of Transparent Conductive Films	720
Application of Artificial Dielectric Material for a PIFA Antenna	725
Bandwidth Enhancement of Balanced Folded Loop Antenna Design for Mobile Handsets Using Genetic Algorithms	727
Design Considerations of MIMO Antennas for Mobile Phones	731
A Simple Antenna Design of Implantable RFID based on EFAB Technology	736
Advances in RF Bioeffect Mechanisms	743
SAR of Wireless Communication Terminals Operated near the Human Body Using the Example of PCMCIA Data Cards	745
An Improved Doppler Parameter Estimator for Synthetic Aperture Radar	750
Performance Investigation of the Flat Antenna Based on Metamaterials	756
The Prevention of Multipactor Discharge in Rectangular Waveguide Loaded with Uniaxial Metamaterial	760
Cloak Changing with Background	765
Electromagnetic Absorption by Metamaterial Grating System	770
Designed Fano Resonance in Semiconductor Devices	775
Formulation of Scintillations for Optical Incidence of Arbitrary Field Profile	779
Propagation of Partially Coherent Beams after a Source Plane Ring Aperture	783
Measurements and Physical Electromagnetic Statistical Modeling of mm Wavelength Propagation	790
Broadband VCO Using Tunable Metamaterial Transmission Line with Varactor-loaded Split-ring Resonator	799
Design for PCS Antenna Based on WiBro-MIMO	804
Design of Dual-polarization Stacked Arrays for Wireless Communications	809
A High Linearity and Efficiency Doherty Power Amplifier for Retrodirective Communication	813
Effect of the Gap Feeding on the Multi-band Small Antenna Using a Branch Structure	819
Design and Analysis of a 1.2 V, 1.8 GHz, 240.147 μ w Low Power ASK Transmitter for Wireless Micro Sensor Nodes	824
Wavefront Reconstruction of Breast Microwave Imagery Acquired along Circular Scan Trajectories: A Study on Experimental Feasibility	833
FDTD Analysis in Hyperthermia and Dosimetry for Biomedical Applications	838
Technical Equipment for Research of Biological Effects of EM Field	845
Revisited Implementation of the Spectral Kummer-Poisson's Method for the Efficient Computation of 2-D Periodic Green's Functions in Homogeneous Media	848
An Improved Matrix Bandwidth and Profile Reduction Algorithm in FEM Problems	853
Simulation of Multiple Scattering Scenes for Time Domain Maxwell's Equations by an Hybrid and Parallel Method	858
Tailoring Particles for Optical Trapping and Micromanipulation: An Overview	864

Wide-angle Absorption by the Use of a Metamaterial Plate	869
Design of Double-frequency Coaxial CTS Antenna	875
Frequency Scanning Using Micro-strip Array Antenna	878
Cluster Head Selection Using Evolutionary Computing in Wireless Sensor Networks	883
A Robust Transmission Technique for Arbitrary 3D Images in Wireless Multimedia Sensor Networks ..	887
Medical Imaging and Diagnostics Based on Microwaves	890
Electromagnetic Radiation from Ingested Sources in the Human Intestine at the Frequency of 2.4 GHz .	893
Microwave Thermotherapy — Technical and Clinical Aspects	898
A Physical Model for Study of Electromagnetic Field Interaction with Cancer Cell	904
Method of Integral Equations for Solving 3D Electromagnetic Diffraction Problems in a Perturbed Layer Using Parallel Computations	907
A Specific Architectures of CMOS Readout for Resonant-cavity-enhanced Devices	912
Design of Reusable and Flexible Test Access Mechanism Architecture for System-on-Chip	916
Design and Simulation of Modified 1-D Electrostatic Torsional Micromirrors with z -axis Displacement .	922
Design and Characterization of a Radio Frequency MEMS Inductor Using Silicon MEMS Foundry Process	925
A Concept of Moving Dielectrophoresis Electrodes Based on Microelectromechanical Systems (MEMS) Actuators	929
Holographic Femtosecond Laser Processing and Three-dimensional Recording in Biological Tissues	932
Photonic Waveguide Devices Directly Written into Dielectric Materials Using Femtosecond Laser Pulses	937
3D Microstructuring of Glass by Femtosecond Laser Direct Writing and Application to Biophotonic Microchips	942
A Novel Design of Photonic Crystal Lens Based on Negative Refractive Index	947
Review of Nonlinear Optics in Metamaterials	952
Transparency Effect Induced by Elastic Metamaterials	963
Electromagnetic Smart Screen for Tunable Transmission and Reflection Applications	967
Enhancement of the Electronic Confinement Improves the Mobility in p - n - p Delta-doped Quantum Wells in Si	971
Electron Subband Structure and Mobility Trends in p - n Delta-doped Quantum Wells in Si	975
Stark Effect in p-type Delta-doped Quantum Wells	979
Miniband Structure Formation of p -type Delta-doped Superlattices in GaAs	983
Quasi-bound Electronic States in Multiple Delta-doped Quantum Wells	988
Dimensions of the Spectrum of Elementary Excitations in Heterostructures Mimicking a DNA Sequence	991
Transmittance and Fractality in a Cantor-like Multibarrier System	995
The Electrostatic Potential Associated to Interface Phonon Modes in Nitride Single Heterostructures ..	999
Electronic Spectrum Study of Parabolic $GaAs/Al_xGa_{1-x}As$ Superlattices	1003
Transport Properties of Delta Doped Field Effect Transistor	1007
Double Structure of the Wind Jet through the Tsushima Strait	1011
Surface Wave Parameters Retrieval in Coastal Seas from Spaceborne SAR Image Mode Data	1015
Statistical Characteristics of Transmitted Nano-meter Electromagnetic Waves in Random Bio-medical Tissues for X-Ray Diagnostic Images	1021
FDTD Parallel Computing of Microwave Scattering and Attenuation Characteristics Due to Randomly Distributed Rainfalls	1028
Radar Cross-section of Targets Using Beam Wave Incidence with Linear Polarization	1034
Polarization of Waves in Reciprocal and Nonreciprocal Uniaxially Bianisotropic Media	1038

Identification of Defects in Materials with Surface Conductivity Distribution	1043
Image Reconstruction Using Combination Deterministic and Stochastic Method	1048
Laplace Transform and FDTD Approach Applied to MTL Simulation	1052
Basic Experiments with Model of Inductive Flowmeter	1057
Experiments with Accuracy of Air Ion Field Measurement	1062
Optical Methods Identifying of the Special Purpose Generator Pulses	1067
A Passive Optical Location with Limited Range	1072
Numerical Method of Simulation of Material Influences in MR Tomography	1077
Experiments with the Effect of Non-homogenous Parts into Materials	1081
Optimization Method of EMI Power Filters and Its Measurement	1085
Estimation Method of Quasi-wavefronts for UWB Radar Imaging with LMS Filter and Fractional Bound- ary Scattering Transform	1089
Structural and Multiferroic Properties of $\text{BiFe}_{0.5}\text{Co}_{0.5}\text{O}_3$ Ceramics	1093
A New Broadband L-shaped Bend Based on Photonic Crystal Ring Resonators	1097
Photonic Lattice of Coupled Microcavities in Nonpermanent Gravitational Field Produced by Rotation	1100
Surface-Polariton-Enhanced Reflected THz-Field	1107
An Efficient Approach to Identifying a Complete Photonic Band Gap in Two-dimensional Photonic Crystals with Omnidirectional Light Propagation	1112
Limitation of Spontaneous Emission Enhancement Using Surface Plasmon Polaritons	1116
Metamaterial Techniques for Automotive Applications	1122
Force Constants and Dispersion Relations in GaN	1126
Longwave Phonon Tunnelling Using an Impedance Concept	1130
Cantor Dielectric Heterostructures Made of Nanostructured Multilayers of Porous Silicon	1134
Hydrostatic Pressure and Magnetic Field Effects on the Exciton States in Vertically Coupled GaAs- (Ga, Al) As Quantum Dots	1138
Internal Mobility Edge in Doped Graphene: Frustration in a Renormalized Lattice	1142
Small Nano-dot Incorporated High-efficiency Phosphorescent Blue Organic Light-emitting Diode	1147
Linear Sampling Method: Physical Interpretation and Guidelines for a Successful Application	1152
Soil Dielectric Model Accounting for Contribution of Bound Water Spectra through Clay Content	1157
Monitoring of Satellite Thermal Patch Formed by A Wave Facet Ocean Surface Water Waves	1162
Monitoring of Satellite Thermal Patch on the Ocean Surface Generated by Strong Wind Duration in Mid-night	1165
Study of a Circular Disc Monopole Ultrawide-band Miniature Antenna	1169
Virtual Sources for a Sinh-Gaussian Beam	1174
Method for Magnetic Field Approximation in MR Tomography	1179
Design Simulation and Optimization the Source of Light	1184
Inversion Reconstruction of Signals Measured by the NMR Techniques	1188
Numerical Modeling of Electromagnetic Field a Tornado	1193
The Numerical Modeling and Conformal Mapping Method Applied to the Strip-centered Coaxial Line Analysis	1198
A Novel Hypothesis for Quantum Physics, Model with Telegraphs Equation	1202
Extending the Concept of Debye Length for Chasmas	1206
Further Results on Post-MHD	1210
Non-quasi-neutral Plasmas or Chasmas	1214

Usefulness of a Universal Electric-cusp Type Plasma Reactor in Basic Studies and a Variety of Applications in Dust Dynamics, Ionization and Discharge Physics Based on Electrohydrodynamics	1218
Magnetoplasmons in Graphene Structures	1223
Diagonalization of Translation Operators for Elastic Wave Equations	1228
Finite Element Method Simulation of Photoinductive Imaging for Cracks	1233
Staggered-grid Pseudospectral Time Domain (PSTD) Method Using Real Fourier Transform for 2.5D Electromagnetic Wave Propagation	1238
Microscopic Biological Cell Level Model Using Modified Finite-difference Time-domain at Mobile Radio Frequencies	1244
A Hybrid of Genetic Algorithm and Particle Swarm Optimization for Antenna Design	1249
Fabrication and Analysis of Valve-less Micro Pumps	1254
RF MEMS Extended Tuning Range Varactor and Varactor Based True Time Delay Line Design	1259
Conductance and Wave Impedance of Electrons	1263
A New Definition of Capacitance of Few Electron Systems	1269
Quantum Wires and Field Theory	1275
Noise Associated with Microwave Intensity Modulation of Semiconductor Lasers	1283
Temperature Effects Induced a Radically Different Behavior on the Transport Properties of Si Delta-doped GaAs Quantum Wells	1288
Evaluation of Leakage Losses in Optical Bragg Waveguides	1292
Progress in Theoretical Design and Numerical Simulation of High Power Terahertz Backward Wave Oscillator	1297
Modeling of Passively Mode-locked Broadband Dual-gain-media Nd:glass Laser	1302
Metamaterial Structures for Compact Millimeter Wave Antenna Applications	1306
Force Generation of Selenion Governed by the Charge Quantity	1313
Electro-optic Properties and Phase Behavior of Chiral-nematic Molecules	1318
Design of Composite Electromagnetic Wave Absorber Made of Soft Magnetic Materials Dispersed and Isolated in Polystyrene Resin	1322
An Unsupervised Classification Method for Polarimetric SAR Images Based on Inhomogeneous Markov Random Field and Graph Cuts	1328
Spatial Distribution Pattern of MODIS-NDVI and Correlation between NDVI and Meteorology Factors in Shandong Province in China	1333
Investigation on the RCS Measurement Technique of Large Targets at Near Distance	1339
Application of DSP in the Step-Frequency RCS Measurement System	1343
Electromagnetic Absorption by Conducting Fiber Filled Composite in the Centimeter- and Millimeter-wave Regions	1347
Analysis of the Optimal Gap Width and Gap-to-gap Distance in π -mode Double-gap Cavities for Broadband Klystrons	1353
Analysis and Design of Power Generator on Passive RFID Transponders	1357
An Injection-locked Millimeter Wave Oscillator Based on Field-emission Cathodes	1363
A New Tunable Wideband Ring Filter with Merged Stubs and Miniaturized Geometry for Bluetooth Technology	1368
A Circular Polarization Microstrip Stacked Structure Broadband Antenna	1371
A Wide-band Circular Polarization Stacked Patch Antenna for the Wireless Communication Application	1375
Reflector Antenna with Artificial Magnetic Conductor Structure	1379
Design of Controlled RF Switch for Beam Steering Antenna Array	1381

Ultra Low Side Lobe Level Synthesis with Particle Swarm Optimization for Symmetrical Non-uniform Linear Array Antennas	1386
An Efficient Density Weighting Approach for Side-lobe Level Suppression of Linear Array Antennas ..	1390
Author Index	1394