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Room C

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**ORAL Session: I23A1 (10 presentations)**  
**Microwave Antennas (I)**

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| 8:20 - 8:40   | Design of high-directivity end-fire antenna array<br><i>guowei Yao, Zhenghui Xue, zhongkai Liu, weiming Li, nan Wang, Wu Ren, Shiming Yang (China Mainland)</i>                          | 424 |
| 8:40 - 9:00   | An Endfire Phased Array used in Wireless Access for Vehicular Environments (WAVE)<br><i>Zhijun Zhang, Fei Liu, Wenhua Chen, Zhenghe Feng, Weidong Xiang (China Mainland)</i>             | 428 |
| 9:00 - 9:20   | Analysis of 8x8 Butler Matrix Switched Beam Smart Antenna Having Different Current Distributions<br><i>Abdulkareem S. Abdallah, Lv Xin (China Mainland)</i>                              | 432 |
| 9:20 - 9:40   | Design of Dielectric-supported Switched Parasitic Antenna Array<br><i>Jiawen Sun, Wenhua Chen, Zhenghe Feng (China Mainland)</i>   | 436 |
| 9:40 - 10:00  | 8-Element Circularly Polarized Microstrip Array Antenna<br><i>qianqian wu, Jingzhao She, Zhenghe Feng (China Mainland)</i>   | 440 |
| 10:00 - 10:20 | (Tea Break)  |     |
| 10:20 - 10:40 | Development of correlator model for differential VLBI observations of satellites<br><i>Fengchun Shu, Xiuzhong Zhang, Tetsuro Kondo (China Mainland)</i>                                  | 443 |
| 10:40 - 11:00 | Systolic Adaptive Array with Sidelobe Control<br><i>yanzhen liao, Fei Huang, Weixing Sheng, Xiaofeng Ma (China Mainland)</i>   | 447 |
| 11:00 - 11:20 | Adaptive Antenna Array for IEEE802.16e Base station in the presence of Multipath and Interference and considering Mutual Coupling Effects<br><i>Sayeh Mirzaie, R. Faraji-Dana (Iran)</i> | 450 |
| 11:20 - 11:40 | Time-Domain versus Frequency-Domain Approach for an Accurate Simulation of Phased Arrays<br><i>Jian Cui, Min Zhang (China Mainland)</i>  | 454 |

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Room E

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**ORAL Session: I23A3 (6 presentations)**  
**High Speed Digital Circuits and SI; Computer Aided Design**

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|              |  |            |
|--------------|--|------------|
| 8:00 - 8:20  | Modified Rational Function Modeling for Multi-Port High-Speed Differential Circuits<br>(Invited)<br><i>Robert X. Zeng (United States)</i>                                    | <b>459</b> |
| 8:20 - 8:40  | Buffer and Wire-size Optimization under Higher Order RLC Model for Interconnect Design<br><i>Chang Qi, Gaofeng Wang (China Mainland)</i>                                     | <b>463</b> |
| 8:40 - 9:00  | Propagation and Band Broadening Effect of Planar Ridged Substrate-integrated Waveguide<br>(RSIW)<br><i>Cuixia Li, Wenquan Che, Peter Russer, Y. L. Chow (China Mainland)</i> | <b>467</b> |
| 9:00 - 9:20  | Formula of Asymmetric Stripline Open-End and Its Applications<br><i>zhengyong yu, Wanchun Tang, yu nai, Y.Leonard chow (China Mainland)</i>                                  | <b>471</b> |
| 9:20 - 9:40  | An Efficient Modeling Technique for RF MEMS Phase Shifter Based on RBF Neural Network<br><i>Guohui Yang, Qun Wu, Jiahui Fu, Kai Tang, Xunjun He (China Mainland)</i>         | <b>475</b> |
| 9:40 - 10:00 | Wire Sizing Optimization for Buffered Global Interconnects<br><i>Min Tang, Junfa Mao (China Mainland)</i>  | <b>479</b> |

10:00 - 10:20 (Tea Break)

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**ORAL Session: I23A4 (5 presentations)**  
**EMI and EMC**

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|               |  |            |
|---------------|--|------------|
| 10:20 - 10:40 | A Facile ESD Protection Realization for UE RF Switch<br><i>Baohong Liu, Junfa Mao (China Mainland)</i>   | <b>484</b> |
| 10:40 - 11:00 | Effects of Pulse Repetition Frequency on the Immunity of Silicon BJT against Microwave Interference<br><i>Xi Chen, Zhengwei DU, Ke GONG (China Mainland)</i> | <b>488</b> |
| 11:00 - 11:20 | The Design of EMI and EMC Based on Optical Burst- module PCB<br><i>aihan yin, li li, xinliang zhang, qingmiao zhang, aiyun zhan (China Mainland)</i>         | <b>491</b> |
| 11:20 - 11:40 | A Novel Power Plane Structure for EMC Design for Modern System in Package<br><i>Huifen Huang, Qingxin Chu, Jiankang Xiao (China Mainland)</i>                | <b>495</b> |
| 11:40 - 12:00 | Resonance Suppression for Power Bus in Printed Circuit Boards Using EBG Structures<br><i>Jie Li, Zhi Liang Wang (China Mainland)</i>                         | <b>499</b> |

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Room F

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**ORAL Session: I23A5 (10 presentations)**  
**Computational Electromagnetics (I)**

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|               |  |            |
|---------------|--|------------|
| 8:00 - 8:20   | Application of Wavelet-Like Transforms in Full-Wave Analysis of Microstrip Discontinuities<br><i>Mehdi Rezaei Zarnaghi, Saeid Nikmehr (Iran)</i>                           | <b>504</b> |
| 8:20 - 8:40   | Comparison of Two Methods for Analyzing Similar-Circular Waveguide<br><i>Binzhao Cao, Fuyong Xu, Jingzhong Cui (China Mainland)</i>  | <b>508</b> |
| 8:40 - 9:00   | Research on Transmission Characteristics of Upswept-ridge Waveguide by the FEM<br><i>hai sun, Mai lu (China Mainland)</i>  | <b>512</b> |
| 9:00 - 9:20   | A Simple and Efficient Implementation of the Well-Conditioned Electric-Field Integral Equation<br><i>Chu-qiang Deng, Xin-Qing Sheng (China Mainland)</i>                   | <b>515</b> |
| 9:20 - 9:40   | Effects of Reinforced Concrete Walls on Transmission of EM Wave in WLAN<br><i>Ping Liu, Gui Chen, Yun-liang Long (China Mainland)</i>                                      | <b>519</b> |
| 9:40 - 10:00  | A 3-D Unconditionally Stable Precise Integration Time Domain Method in Circular Cylindrical Coordinates<br><i>Xintai Zhao, zhigong wang, Xikui Ma (China Mainland)</i>     | <b>523</b> |
| 10:00 - 10:20 | (Tea Break)  |            |
| 10:20 - 10:40 | Application of Conformal FDTD Algorithm to Analysis of Conically Conformal Microstrip Antenna<br><i>Qing Lu, Xiaowen Xu, Mang He (China Mainland)</i>                      | <b>527</b> |
| 10:40 - 11:00 | FDTD Investigation on Electromagnetic Scattering from the PEC Cylinder above Two-Layered Rough Surfaces<br><i>Juan Li, Li Xin Guo, Hao Zeng (China Mainland)</i>           | <b>531</b> |
| 11:00 - 11:20 | Investigation of the Effect of Conductor Loss and Mismatch on the Tunneling Through Frequency Selective Surfaces<br><i>Ehsan Zareian-Jahromi, Mahmoud Shahabadi (Iran)</i> | <b>535</b> |
| 11:20 - 11:40 | Simulation of Scattering from Dielectric Random Rough Surfaces Using SMC Method with Curvilinear RWG Basis Functions<br><i>Shaowu Huang, Mingyao Xia (China Mainland)</i>  | <b>539</b> |

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Room G

9:20 - 12:00

POSTER Session: I23A6 (80 presentations)

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*Hui Dong, Yi-sheng Zhu, Bai-shan Zhao (China Mainland)* 544
- P.2 A Millimeter-Wave High Power Combining Circuit Based on a Waveguide-based Lossless  
Symmetric 180° 3-dB Hybrid 548  
*Xiaoqiang Xie, Ruimin Xu, Ran Feng, Weigan Lin (China Mainland)*
- P.3 A Self-Aligned InP/InGaAs/InP DHBT with Hexagonal-Shaped Emitters  
*Yan Zhao, Zheng Zhang, Jianfeng Gao (China Mainland)* 551
- P.4 Optimization of the Capacitance in Switching Capacitor Array Based on Particle Swarm  
Optimization Algorithm 554  
*huan tan, Ping-hui Li, Jian-gong Wang, Zheng-xiang Gai (China Mainland)*
- P.5 Neural Networks for Nonlinear Modeling of Microwave Schottky Diodes  
*anhui Liang, Yangfeng Xu, Shouqing Jia, Guoquan Sun (China Mainland)* 558

**Monolithic Integrated Circuits**

- P.6 A 5GHz 0.18-um CMOS technology PLL with a symmetry PFD  
*Yingmei Chen, Zhigong Wang, Li Zhang (China Mainland)* 562
- P.7 Approaches for Improving LO-RF Isolation of MMIC 90° -hybrid-IRM  
*Yiming Shen, Longxin Peng (China Mainland)* 566
- P.8 A novel CMOS low-phase-noise VCO with enlarged tuning range  
*haiyong wang, Nanjian Wu, Guoliang Shou (China Mainland)* 570
- P.9 A Monolithic CMOS DC-DC Converter  
*Lei Li (China Mainland)* 574
- P.10 Medium Power Amplifier Design in SiGe BiCMOS 0.35- $\mu$ m Technology  
*Jia-You Song, zhi-gong wang, zhi-qun li, yan-jun peng (China Mainland)* 576
- P.11 RF Integrated Inductor: Improving Q-Factor with Double Ground Shield for BiCMOS  
Technology 580  
*Paulo Nazareno Lagoia Fonseca Junior, Luiz Carlos Kretly (Brazil)*

**Packaging, Interconnects, and MCMs**

- P.12 A Study of New Transmission Line: Side Line  
*Zhiyuan Yu, Xi Yang, Qingfan Shi (China Mainland)* 584
- P.13 An improved SIR filter designed using LTCC technology  
*Tao Yang, Ruimin Xu, Lan Xiao, Shuyi Wang (China Mainland)* 587
- P.14 Design of the LD Interface Circuit in Transceiver-receiver Module  
*aihan yin, li li, qingmiao zhang, xinling zhang, aiyun zhan (China Mainland)* 591

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- P.15 A patterning technique for superconducting MgB<sub>2</sub> films  
*Fashun Yang, Zhangyu Zhou, Zhao Ding, Xinghua FU (China Mainland)* 595

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- P.16 Application of the Hybrid Algorithm Combining Ant Colony Optimization Algorithm with Microgenetic Algorithm to the Optimization of Multilayered Radar Absorbing Coating **597**  
*Kun Chao, Yunlin Liu, Rugui Yang (China Mainland)*
- P.17 Optimization Design of Low-profile Helical Antennas Based on Differential Evolutionary Strategy **601**  
*Mingfang Zhang, Cheng Liao, Tao Wei, Jun Li, Jian Fang (China Mainland)*
- P.18 Novel Smith Chart Approaches to Solve Problems in Periodic Structures **605**  
*yongle wu, Yaxing Zhang, Yuanan Liu (China Mainland)*
- P.19 Analysis of the Omnipotent Smith Chart with Imaginary Characteristic Impedances **609**  
*yongle wu, Yaxing Zhang, Yuanan Liu (China Mainland)*

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*Yunqiu Wu, Zongxi Tang, Biao Zhang, Xi He (China Mainland)*
- P.25 Hardware-in-the-loop Simulation and Testing System for Millimeter-Wave Seeker **630**  
*Wei ZHANG, Hou-jun Sun, Xin Lv (China Mainland)*
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*wei peng, Xuegang Wang, Youxin Lv (China Mainland)*
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| P.46 | Fast Parallel MATLAB Algorithm of Electromagnetic Scattering   | 708 |
|      | <i>You-Bao Wang, Ya-Ming Bo, De Ben (China Mainland)</i>   |     |
| P.47 | Efficient Analysis of an Antenna-Radome Structure Using Fast Multipole Method  | 712 |
|      | <i>Ying Zheng, Xiaowen Xu, Mang He, Qing Lu (China Mainland)</i>   |     |
| P.48 | RCS Analysis Considering Multi-Reflection Using SBR/RDN Method Based on RWG Basis Function   | 716 |
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| P.49 | Daubechies Wavelets in Analyzing Grooved Wire  | 718 |
|      | <i>Yulei Zhao, Zhiqin Ju, Chuangming Tong, Weijun Zhong (China Mainland)</i>   |     |
| P.50 | A Novel Method for Analyzing the Dispersion Characteristics of Slow Wave Structures  | 722 |
|      | <i>Zhonglei Mei, Fuyong Xu (China Mainland)</i>  |     |
| P.51 | An FDTD/MoMTD Hybrid Technique for Modeling HF Antennas Located on Lossy Ground  | 726 |
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| P.52 | The Analysis of Electromagnetic Characteristics of Coplanar Waveguide in Different Models Using Finite-Difference Time-Domain Method | 730 |
|      | <i>Jinchang Zhao, Yu Tian, Yan Chen, Bo Gao, Ling Tong (China Mainland)</i>  |     |
| P.53 | A simple FDTD model for monopole antennas fed by coaxial transmission line   | 734 |
|      | <i>Jiajun Ma, Xiangyu Cao, Yuesheng Zeng (China Mainland)</i>  |     |
| P.54 | A novel efficient algorithm for surface mesh segmentation  |     |



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|  | <i>Junhe Zhou, Min Zhang, Hongli Wang (China Mainland)</i>   | <b>736</b> |
| P.55   | Combination-Optimization Method for Ultra-Wide Band TEM Horn Antenna Array Using Micro-Genetic Algorithm<br><i>Yanming Qin, Cheng Liao, Tao Wei, Jun Li (China Mainland)</i>                     | <b>739</b> |
| P.56   | Transient Scattering Responses from Arbitrary Shaped Thin Wires<br><i>Ying Li, Meng Ren, Jianguo He (China Mainland)</i>   | <b>743</b> |
| P.57   | Analysis of transient scattering from complex objects<br><i>Meng Ren, Dongming Zhou, Ying Li, Jianguo He (China Mainland)</i>  | <b>746</b> |
| P.58   | Application of the RBF-Based Meshless Method to Solve 2-D Time Domain Maxwell' s Equations<br><i>ShengJian Lai, Bingzhong Wang, Yong Duan (China Mainland)</i>                                   | <b>749</b> |
| P.59   | Electromagnetic Scattering from Mixed Conductor-Dielectric Bodies Using Nonlinear VRWG Basis Functions<br><i>ShuWen Chen, HouXing Zhou, Wei Hong, DeJiang Chang (China Mainland)</i>             | <b>752</b> |
| P.60   | A New Modified Perfectly Matched Layer( PML)<br><i>Changwei Rao, Tian Yu, Bo Gao, Yan Chen, Ling Tong (China Mainland)</i>   | <b>756</b> |
| P.61   | Applications of the Unconditionally Stable ADI-MPSTD for Scattering Analysis<br><i>Lin Li, Qunsheng Cao (China Mainland)</i>   | <b>760</b> |
| P.62   | Application of MEI-ABC in Edge-Based Finite Element Method in Time Domain<br><i>Shuangwen Zhang, Yunlin Liu, Rugui Yang (China Mainland)</i>   | <b>764</b> |
| P.63   | An Efficient FDTD Implementation of the CFS-PML Based on the ADE Method and its Validation along with the PLRC method in Dispersive Media<br><i>Jianxiong Li, Chunjiao Miao (China Mainland)</i> | <b>766</b> |
| P.64   | A New implementation of the Uniaxial Perfectly Matched Layer<br><i>Jianxiong Li, Chunjiao Miao (China Mainland)</i>  | <b>770</b> |
| P.65   | Entropy Description of Measured Information in Microwave Imaging<br><i>Jing Li, Kama Huang (China Mainland)</i>  | <b>774</b> |
| P.66   | An Efficient Method for Analysis of EM Performance of Thin Dielectric Radomes together with wire antenna<br><i>wenbo wang, jinping Xu (China Mainland)</i>                                       | <b>778</b> |
| P.67   | Simulations on S-band Alternating Periodic Structure<br><i>xiaodong he, Cong-Feng wu, Guangyao feng, dong sai (China Mainland)</i>   | <b>781</b> |
| P.68   | A Fast Solution to the VSIE for EM Scattering by Using the P-FFT with Floating Stencils<br><i>Zhongkuan Chen, Shunlian Chai, Hu Yang, Junjie Mao (China Mainland)</i>                            | <b>785</b> |
| <b><u>Microwave Remote Sensing and Sensors</u></b> |  |            |
| P.69   | Tropospheric Refractivity Profiling Based on Single Ground-based GPS<br><i>Leke Lin, Zhenwei Zhao, Yerong Zhang, Shifeng Kang (China Mainland)</i>   | <b>788</b> |
| P.70   | Adaptive Tracking Algorithm with Variable Observation Based on the Scheme of Monitoring Area Segmentation<br><i>HONGKUI XU, Dongjin Wang, Weidong Chen (China Mainland)</i>                      | <b>792</b> |
| P.71   | Pulse Compression with Ultra-low Range Sidelobe for Spaceborne Meteorology Radars<br><i>Hong-gang Yin, Xiao-long Dong (China Mainland)</i>   | <b>796</b> |
| P.72   | Impact of the Weighed Mean Temperature on the Estimation of GPS Precipitable Water Vapor<br><i>Yunchang Cao, Feifei Zheng, Yifeng Xie, Yanmeng Bi (China Mainland)</i>                           | <b>799</b> |
| P.73   | The Study of Multi-false Targets Synthesizing Technology against Chirp ISAR<br><i>Yuan Li, Xue-mei LUO, Gao-huan LV (China Mainland)</i>   | <b>802</b> |
| P.74   | Development of the Disk Antenna Array Aperture Synthesis Millimeter Wave Radiometer<br><i>Yong Xue, Jun Gang Miao, Guo Long Wan, An Yong Hu, Feng Zhao (China Mainland)</i>                      | <b>806</b> |

|                             |  |     |
|-----------------------------|--|-----|
| P.75                        | Evaluation of Disturbance in the Antenna Calibration of the Microwave Radiometer<br><i>Zhiping Li (China Mainland)</i>   | 810 |
| P.76                        | The Performance Analysis of Direct Sampling Microwave Radiometer<br><i>lu zhu, Fei Hu (China Mainland)</i>   | 814 |
| P.77                        | Application of Two-Dimensional Nonuniform Fast Fourier Transform (2-D NUFFT)<br>Technique in Synthetic Aperture Radiometer Imaging<br><i>Xi Zhou, Jiwei He, Xin Lu (China Mainland)</i>            | 818 |
| <b>Photonics and Optics</b> |  |     |
| P.78                        | Full-vector improved effective index method for analysis of fiber Bragg gratings formed in<br>photonic crystal fibers<br><i>shanglin hou, suoping li, daobin wang, jingli lei (China Mainland)</i> | 822 |
| P.79                        | Study on dispersion of optical fiber with cladding made of uniaxial crystal materials<br><i>shanglin hou, suoping li, daobin wang, jingli lei (China Mainland)</i>                                 | 825 |
| P.80                        | The New Fiber-Optic Stain sensor<br><i>Liu yun jing, Wang Xue guang (China Mainland)</i>   | 828 |

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Room B

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**ORAL Session: I23P1 (6 presentations)**  
**Solid State Device and Circuits**

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|               |  |     |
|---------------|--|-----|
| 13:30 - 13:50 | A design procedure for tunnel diode microwave oscillators<br><i>Liquan Wang, Edward Wasige (United Kingdom)</i>                          | 832 |
| 13:50 - 14:10 | A Broadband Noise-Canceling CMOS Differential LNA for 50-860MHz TV Tuner<br><i>Keping Wang, Zhigong Wang (China Mainland)</i>            | 835 |
| 14:10 - 14:30 | A High-Performance CMOS Charge-Pump for Phase-Locked Loops<br><i>jianzheng zhou, zhigong wang (China Mainland)</i>                       | 839 |
| 14:30 - 14:50 | A Low Conversion Loss Millimeter Wave Fourth Subharmonic Mixer<br><i>Yanfeng Xu (China Mainland)</i>                                     | 843 |
| 14:50 - 15:10 | Novel Even Harmonic Mixer for 3G Mobile Receivers<br><i>Souren Shamsinejad, Mohammad Soleimani, Majid Tayarani, Nader Komjani (Iran)</i> | 846 |
| 15:10 - 15:30 | Wideband Subharmonic Mixer in Bilateral Finline at U-Band<br><i>Yuliang Dong, Rui Bai, Jun Xu, Liangjin Xue (China Mainland)</i>         | 850 |
| 15:30 - 15:50 | (Tea Break)  |     |

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**ORAL Session: I23P2 (6 presentations)**  
**Monolithic Integrated Circuits**

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|---------------|---|-----|
| 15:50 - 16:10 | Design of a 4 GHz Quadrature LC -VCO with Transformer Coupling<br><i>xiu shan wu, zhigong wang, zhiqun li, qing li (China Mainland)</i>                                       | 855 |
| 16:10 - 16:30 | Efficiency Design of a 10 GHz CMOS Oscillator<br><i>Jeffrey S. Fu, Hsien-Chin Chiu, Po-Yu Ke, Wu-Shiung Feng, Yi-Chyun Chiang (Taiwan)</i>                                    | 859 |
| 16:30 - 16:50 | Efficient Optimization of a Ka-Band MMIC Sub-Harmonically Pumped Image Rejection Diode Mixer<br><i>Yuehang Xu, Yunchuan Guo, Ruimin Xu, Bo Yan, Gang Liu (China Mainland)</i> | 862 |
| 16:50 - 17:10 | An 18-40 GHz Ultra Broadband Low Noise Amplifier MMIC<br><i>Guang Yang, Yunchuan Guo, Ruimin Xu (China Mainland)</i>  | 865 |
| 17:10 - 17:30 | A 2-Gb/s 16:1 Multiplexer in 0.18- $\mu$ m CMOS Process<br><i>X. Tang, X.J Wang, S.Y Zhang, Y.S Chi, N. Jiang, F.Y. Huang (China Mainland)</i>                                | 868 |
| 17:30 - 17:50 | Lumped-Element Simulation with CN-FDTD<br><i>yu nai, Wanchun Tang, zhengyong yu (China Mainland)</i>  | 871 |

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Room C

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**ORAL Session: I23P3 (7 presentations)**

**Photonics and Optics; Microwave-Optical Design; Wide Band Gap Semiconductor Devices**

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|               |   |     |
|---------------|---|-----|
| 13:30 - 13:50 | Millimeter-Wave Frequency Tripling Based on Four-Wave Mixing in Sideband Injection Locking DFB Lasers<br><i>Hong Cheng, Mingjing Li, Cheng Zhang, Weiwei Hu, Zhangyuan Chen, Anxi Xu (China Mainland)</i> | 876 |
| 13:50 - 14:10 | LIGHT CONFINEMENT IN LOW CONTRAST SLOT WAVEGUIDE STRUCTURES INVESTIGATED<br><i>Muddassir Iqbal, Zheng Zheng, Jiansheng Liu (China Mainland)</i>   | 878 |
| 14:10 - 14:30 | Elimination of Polarization-Induced-Fading in Interferometric Fiber-Optic Hydrophone System<br><i>Li Zhou, Li Yang, Gu Ping, Li Er, Fu Bi (China Mainland)</i>  | 882 |
| 14:30 - 14:50 | Impact of Dispersion on the performance of optical CDMA transmission system<br><i>Fenfei Hou, Xiaohan Sun (China Mainland)</i>  | 886 |
| 14:50 - 15:10 | Temperature Sensor Based on Iodine-doped Hollow Core Photonic Crystal Fiber<br><i>Ye Wu, Ireneling Li, Shuangchen Ruan, Jianpang Zhai (China Mainland)</i>  | 890 |
| 15:10 - 15:30 | Analysis of Pulsed I-V Curves and Power Slump in Field-Plate GaN-Based FETs<br><i>Kazushige Horio, Keiichi Itagaki, Atsushi Nakajima (Japan)</i>  | 893 |
| 15:30 - 15:50 | (Tea Break)   |     |
| 15:50 - 16:10 | Modeling of High Power 0.3 THz IMPATT Oscillator Based on 3C-SiC and Growth of 3C-SiC on Si (100) Substrate for Possible IMPATT Fabrication<br><i>Moumita Mukherjee, Nilratan Mazumder (India)</i>        | 897 |

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Room D

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**ORAL Session: I23P4 (11 presentations)**  
**Instrumentation and Measurement Techniques**

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|               |  |     |
|---------------|--|-----|
| 13:30 - 13:50 | Velocity Measurement of the Automobile Based on the Wavelet De-noising and STFT<br><i>Jin-jie YAO, Yan HAN (China Mainland)</i>  | 902 |
| 13:50 - 14:10 | An Application of MUSIC Algorithm to Improve the Environment of Antenna Far-Field Measurement<br><i>Bin Cui, Zhenghui Xue, nan Wang, Xiaowen Xu, Shiming Yang (China Mainland)</i> | 906 |
| 14:10 - 14:30 | Investigation of the key sampling parameters of Antenna time domain planar near field measurement<br><i>chang ren, Zheng Hui Xue, nan Wang, shi ming Yang (China Mainland)</i>     | 910 |
| 14:30 - 14:50 | Emissivity measurement study on wide aperture microwave radiator<br><i>chunyue cheng, fang Li, yujie Yang, yunmei Chen (China Mainland)</i>  | 914 |
| 14:50 - 15:10 | Rapid Behavior Modeling Platform for RF Power Amplifiers/Transmitters<br><i>Taijun Liu, Yan Ye, Slim Boumaiza, Fadhel M. Ghannouchi (China Mainland)</i>                           | 918 |
| 15:10 - 15:30 | In-vitro and In-vivo techniques to measure the dielectric constant of biological tissues at microwave frequencies<br><i>Zhanxian Wang, Wenquan Che (China Mainland)</i>            | 922 |
| 15:30 - 15:50 | (Tea Break)  |     |
| 15:50 - 16:10 | A research on high-precision time-synchronization and ranging system between satellites<br><i>Lijuan Pan, tao jiang, Lingyun Zhou, Hao Xu, Weidong Chen (China Mainland)</i>       | 926 |
| 16:10 - 16:30 | A Study of Microwave Communication Signal Digitization Technology<br><i>xiaolong chen, jiali wang, xin li (China Mainland)</i>   | 930 |
| 16:30 - 16:50 | The High-precise Two-Way Time Transfer Based on The Multiphase Pulses Correlation<br><i>jiang tao, lijuan pan, yan xia, Weidong Chen, lingyun zhou (China Mainland)</i>            | 934 |
| 16:50 - 17:10 | A time-domain method for measuring permittivity and permeability of materilas<br><i>Fushun Nian (China Mainland)</i>   | 938 |
| 17:10 - 17:30 | Time-Gating Method for V/UHF Antenna Pattern Measurement inside an Anechoic Chamber<br><i>Jin TIAN, linxi zhang, nanjing li, Weijun CHEN (China Mainland)</i>                      | 942 |

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Room E

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**ORAL Session: I23P5 (11 presentations)**  
**Computational Electromagnetics (II)**

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|               |   |     |
|---------------|---|-----|
| 13:30 - 13:50 | Study of Mur' s and UPML Absorbing Boundary Condition for the LOD-FDTD Method<br><i>Feng Liang, Gaofeng Wang (China Mainland)</i>   | 947 |
| 13:50 - 14:10 | Optimization of a Microstrip Fork-line Fed Printed Slot Antenna<br><i>ali azarbar, mohammad naser moghaddasi, ramezan ali sadeghzadeh sheykhani, mohammad jahanbakhti (Iran)</i>  | 950 |
| 14:10 - 14:30 | Treatment Technology for Dielectric Media Interfaces Using Multiresolution Time-Domain Scheme<br><i>yi wang, Qunsheng Cao (China Mainland)</i>  | 953 |
| 14:30 - 14:50 | Numerical Simulation of Microstrip Circuits Using Unconditional Stable CN-FDTD method Combined with Preconditioned GMRES<br><i>Yang Yang, Rushan Chen (China Mainland)</i>  | 956 |
| 14:50 - 15:10 | An Unconditionally Stable FDTD Method for scattering problem in lossy media<br><i>Y.T. Duan, B Chen, Y Yi, H.L. Chen (China Mainland)</i>   | 960 |
| 15:10 - 15:30 | Analysis of Impulse Response of Electrically Large Targets<br><i>Xun-wang Zhao, Chang-hong Liang, Le Liang (China Mainland)</i>   | 963 |
| 15:30 - 15:50 | (Tea Break)   |     |
| 15:50 - 16:10 | A Method to Obtain Maximum Coupling Fundamental Gaussian Beam of Corrugated Feed Horn Based On Fast Inverse Diffraction Algorithm<br><i>shan yang, ming bai, jungang miao (China Mainland)</i>                          | 967 |
| 16:10 - 16:30 | External Q Computation by Fuzzy Inference Method; Application to Microstrip Filter Design<br><i>payman Rezaee, Nasrin Nasr Esfahani, Majid Tayarani (Iran)</i>  | 971 |
| 16:30 - 16:50 | Application of Multiresolution preconditioner Technique for Scattering Problem in a Half Space<br><i>Hua Chen, Dazhi Ding, Rushan Chen, Daoxiang Wang, Edward K.N Yung (China Mainland)</i>                             | 975 |
| 16:50 - 17:10 | Application of Perturbed Multiresolution preconditioner Technique Combined with MLFMA for Scattering Problem<br><i>Jianjun Ding, Jian Zhu, Dazhi Ding, Rushan Chen, Daoxiang Wang, Edward K.N Yung (China Mainland)</i> | 978 |
| 17:10 - 17:30 | Modeling of Ultra Wideband Transmission through Building Walls<br><i>Narges Noori, Ali Abolghasemi, Masoum Fardis (Iran)</i>  | 982 |

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Room F

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**ORAL Session: I23P6 (11 presentations)**  
**Scattering and Propagation**

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|               |   |      |
|---------------|---|------|
| 13:30 - 13:50 | Modified MEMP Method for 2D Scattering Center Measurement Based on GTD Model<br><i>Jing Wang, Jianjiang Zhou (China Mainland)</i>   | 987  |
| 13:50 - 14:10 | Statistical Characteristic of Scattering From Randomly Rough Surfaces<br><i>Geng Zhang, Zhensen Wu, Hanlu Zhang (China Mainland)</i>  | 991  |
| 14:10 - 14:30 | Beam Decomposition Algorithm and Its Application to the Pulse Quasi-beam Scattering from Two Dimensional Rough Surfaces<br><i>Li Xin Guo, Yu Chao Ren (China Mainland)</i>                      | 995  |
| 14:30 - 14:50 | Application of the Small Slope Approximation for EM Scattering from the Rough Sea Surface<br><i>Chao Yang, Li Xin Guo (China Mainland)</i>  | 999  |
| 14:50 - 15:10 | Application of Beam Decomposition Simulation to Electromagnetic Pulse Quasi-beam Scattering from One-dimensional Rough Interface<br><i>Yu Chao Ren, Li Xin Guo (China Mainland)</i>             | 1003 |
| 15:10 - 15:30 | On-Surface Discretized Boundary Equation Method in Combination with the Fast Multipole Algorithm for Scattering by Perfect Conducting Cylinders<br><i>Lei He, Yun-Sheng Xu (China Mainland)</i> | 1007 |
| 15:30 - 15:50 | (Tea Break)   |      |
| 15:50 - 16:10 | Application of 20-momen Approximation for Ion Velocity Distribution in Calculations of Incoherent Scattering Spectra<br><i>Kun Xue, Li Xin Guo, Jian Wu, Bin Xu (China Mainland)</i>            | 1011 |
| 16:10 - 16:30 | Statistical Model for UWB Channel in an Industrial Environment<br><i>Mohammad Abdul Matin, Kazi Afrina Yasmeen, M A MohdAli, AKM Wahiduzzaman, Md. Ahmed Imtiaz (Malaysia)</i>                  | 1015 |
| 16:30 - 16:50 | Comparison of Various Full-Wave Methods in Calculating the RCS of Inlet<br><i>Dachuan Yu, Min Zhang (China Mainland)</i>  | 1018 |
| 16:50 - 17:10 | Fourier Split-step parabolic equation solution of wave propagation over forest edge<br><i>jianyan guo, Jianying Wang, Peng Liu, Yunliang Long (China Mainland)</i>                              | 1022 |
| 17:10 - 17:30 | Improved Fourier transform parabolic equation for wave propagation over rough sea surface<br><i>jianyan guo, Juhua Liu, Ke Zhang, Yunliang Long (China Mainland)</i>                            | 1025 |

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**POSTER Session: I23P7 (51 presentations)**


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**Microwave Antennas**

|      |  |      |
|------|--|------|
| P.29 | Compact Ultra-Wideband Antennas with Multiple Notches<br><i>Zhiqin Wang, Wei Hong, Zhenqi Kuai, Yu Chen, Yan Zhang, Yuandan Dong</i> (China Mainland)                    | 1030 |
| P.30 | A wideband waveguide slot array antenna element for high-resolution SAR application<br><i>Xiaole Yu, Daning Ni, Zhengjun Li, Wutu Wang</i> (China Mainland)              | 1034 |
| P.31 | Simulation of Monifilar Archimedean conical spiral antennas<br><i>Chen Chen, Fang Yang, Chenjiang Guo, Jiadong Xu</i> (China Mainland)                                   | 1038 |
| P.32 | A Modified Broadband Transmission Line Model for rectangular Patch Antennas<br><i>kaveh Moussakhani, Ayaz Ghorbani</i> (Iran)  | 1041 |
| P.33 | A Patch Antenna for RFID Reader<br><i>Bing Yang, Quanyuan Feng</i> (China Mainland)  | 1044 |
| P.34 | A Folded Dipole Antenna for RFID Tag<br><i>Bing Yang, Quanyuan Feng</i> (China Mainland)   | 1047 |
| P.35 | Design of an PIFA-IFA-Monopole in Dual-SIM Mobile Phone for GSM/DCS/Bluetooth Operations<br><i>botao Jiang, Junfa Mao</i> (China Mainland)                               | 1050 |
| P.36 | Differential Dual-Frequency Antennas for Wireless Communication<br><i>Liping Han, Jianhong Zuo, Jing Li, Wenmei Zhang</i> (China Mainland)                               | 1054 |
| P.37 | Millimeter Wave Circularly Polarized Substrate Integrated Waveguide Antenna<br><i>Kejun Tan, Xiuzhen Luan</i> (China Mainland)   | 1058 |
| P.38 | Band-Notched Ultra-Wideband Antenna Designed and Optimized by Current Distribution Analysis<br><i>Yuandan Dong, Hong Wei, Zhen Qi Kuai, Jianyi Zhou</i> (China Mainland) | 1062 |
| P.39 | Circularly Polarized Slot Array Antenna based on Substrate Integrated Waveguide<br><i>Zhijun Chen, Wei Hong, Zhenqi Kuai, Jixin Chen, Ke Wu</i> (China Mainland)         | 1066 |
| P.40 | Design of compact broadband circularly polarised bowtie patch antenna<br><i>Jiade Yuan, Changqing Gu</i> (China Mainland)  | 1070 |
| P.41 | On the behavior of Conformal Sierpinski Fractal Microstrip Antenna<br><i>Kai Zhang, Chen Chen, Chenjiang Guo, Jiadong Xu</i> (China Mainland)                            | 1073 |
| P.42 | Circularly Polarized Antenna Based On Dual-mode Circular SIW Cavity<br><i>Guo Qing Luo, Lingling Sun</i> (China Mainland)  | 1077 |
| P.43 | Compact Printed Monopole Antenna on Liquid Crystal Polymer (LCP) for EWB Applications<br><i>Xiao-Rong Yan, Shun-Shi Zhong, Xia Zhang</i> (China Mainland)                | 1080 |
| P.44 | Ultra-wideband printed wide-slot antenna with an inverted II-shaped feed<br><i>linglong xue, shunshi zhong, xiaorong tang</i> (China Mainland)                           | 1083 |
| P.45 | A planar Antenna With Very Wide Impedance Bandwidth<br><i>Guangqiu Zhang, Zhen Tu, Feng Xing, Zhi Chen Wang</i> (China Mainland)   | 1086 |
| P.46 | Design of a Broadband Wide-Angle Circularly Polarized Microstrip Patch Antenna with Small Phase Deviation  |      |



|  |   |             |
|--|---|-------------|
|  | <i>Yaping Chen, Houjun Sun, Xin Lv (China Mainland)</i>   | <b>1089</b> |
| P.47   | A Multi-Band Compact Monopole Antenna for Mobile Handsets<br><i>Jihui Gu, Xiaomin Zhou, Yifei Yang, Jianmin Fang (China Mainland)</i>   | <b>1092</b> |
| P.48   | A Miniature Broadband Multilayer Microstrip Antenna<br><i>Zhiwei Shi, Xi Deng, Yunlin Liu, Kun Chao (China Mainland)</i>  | <b>1095</b> |
| P.49   | Circular Polarized Cylindrical Dielectric Resonator Antenna Using a Single Probe Feed<br><i>S. A. Malekabadi, M. H. Neshati, J. Rashed-mohassel, A. R. Attari (Iran)</i>  | <b>1098</b> |
| P.50   | A Design of the Multi-band Chip Antenna Using Meander line PIFA Structure for Mobile Phone Handset<br><i>inho Cho, Cheonhee Lee, Yonghee Lee, Jungkeun Oh, Jinwoo Jung, Yeongseog Lim, Hyeonjin Lee (South Korea)</i> | <b>1102</b> |
| P.51   | Analysis of Conformal Sierpinski Fractal Microstrip Antenna<br><i>Kai Zhang, Qin Zhang, Chenjiang Guo, Jiadong Xu (China Mainland)</i>  | <b>1106</b> |
| P.52   | Optimization of a Wideband Vertically Stacked Yagi - Uda Antenna Array<br><i>Juan Lei, Guang Fu, Lin Yang, De-min Fu (China Mainland)</i>   | <b>1110</b> |
| P.53   | Design of an Omnidirectional Line Array With SIW Longitudinal Slot Antenna<br><i>GUANG HUA, Wei Hong, XingHua Sun, HouXing Zhou (China Mainland)</i>  | <b>1114</b> |
| P.54   | Properties of DC-biased Plasma Antenna<br><i>Max Chung, Wen-Shan Chen, Yen-Hao Yu, Zong Yao Liou (Taiwan)</i>   | <b>1118</b> |
| P.55   | A Newly Dielectric Embedded Quasi-Microstrip Yagi Antenna with Barrier<br><i>Guoqi Ni, benqing gao, junwei lu (China Mainland)</i>  | <b>1121</b> |
| P.56   | A Slotted Square Patch Antenna for Dual-Band Circularly Polarization Operations<br><i>Shilu Lv, gaole Dai, Mingyao Xia (China Mainland)</i>   | <b>1124</b> |
| <b><u>Smart Antennas, Phased and Active Arrays</u></b> |   |             |
| P.57   | Immune Algorithm in Array-Pattern Synthesis with Sidelobe Reduction<br><i>Jianfeng Ye, Weizhang Pang (China Mainland)</i>   | <b>1127</b> |
| P.58   | Sidelobe Reduction in Thinned Array Synthesis Using Immune Algorithm<br><i>Jianfeng Ye, Weizhang Pang (China Mainland)</i>  | <b>1131</b> |
| P.59   | Study of UWB Time-domain Antenna Array Scan<br><i>Xunlin Yuan, Guangfu Zhang, Jinjian Huang, naichang yuan (China Mainland)</i>   | <b>1134</b> |
| P.60   | Robust Adaptive Beamforming Based on Maximum Likelihood Estimation<br><i>xinyu sun, Xiaohua Lian, Jianjiang Zhou (China Mainland)</i>   | <b>1137</b> |
| P.61   | Interference rejection for frequency-hopping satellite communication systems using LCDCPA algorithm<br><i>Yunzhi Liu, Fuqiang Yao (China Mainland)</i>  | <b>1141</b> |
| P.62   | Development of two-dimensional digital beam-forming receiving array system<br><i>Xiaofeng Ma, Weixing Sheng, Fei Huang (China Mainland)</i>   | <b>1145</b> |
| P.63   | An Anti-collision Algorithm Based on Smart Antenna in RFID System<br><i>Jiexiao Yu, Kaihua Liu, Xiangdong Huang, Ge Yan (China Mainland)</i>  | <b>1149</b> |
| P.64   | Research on robust SMI algorithm for phased antennas<br><i>zhen li li, zhi ren Han (China Mainland)</i>   | <b>1153</b> |
| P.65   | A Survey on Reconfigurable Antennas<br><i>Jiajie Zhang, Anguo Wang, Peng Wang (China Mainland)</i>  | <b>1156</b> |
| P.66   | Investigation of Different Types of Array Structures for Smart Antennas<br><i>Jin Liu, Li Li, Huazhi Wang (China Mainland)</i>  | <b>1160</b> |
| P.67   | GA-Based Digital Multi-Beam Reconfiguration for Satellite Phased Array Antennas<br><i>jian li, huali wang, guanghui xu (China Mainland)</i>   | <b>1164</b> |

|                                      |   |      |
|--------------------------------------|---|------|
| P.68                                 | Digital Multi-Beam Microwave Radiometer: system configuration and experimental result<br><i>jing zhang, Qingxia Li, Wei Guo, Tingting Zhang (China Mainland)</i>        | 1167 |
| P.69                                 | Signal subspace fitting method based on the Conjugate Gradient<br><i>Jin Wang, Yongjun Zhao, Zhigang Wang (China Mainland)</i>  | 1170 |
| P.70                                 | Compact Ultra-wideband Monopole Antenna With Band-Stop Characteristic<br><i>Kang Yin, jinping Xu (China Mainland)</i>   | 1174 |
| P.71                                 | Subband Method for Broadband Arrays Beamforming<br><i>longyang huang, liping cai, bin shen, zemin liu (China Mainland)</i>  | 1177 |
| P.72                                 | Genetic Algorithm in the combination of Smart Antenna and Cell Splitting<br><i>Lei LI, Li Li, Huazhi Wang (China Mainland)</i>  | 1181 |
| P.73                                 | Knowledge-aided conjugate gradient algorithm for adaptive space-time processing in airborne radar<br><i>Tang Bin, Wang Xue gang, Zheng Xiao xia (China Mainland)</i>    | 1185 |
| P.74                                 | Effect of inter-element spacing on performance of planar switched parasitic array antenna<br><i>kainan zhao, Jiawen Sun, wenhua chen, zhenghe feng (China Mainland)</i> | 1189 |
| <b>Submillimeter Wave Techniques</b> |   |      |
| P.75                                 | Design of a D-Band Frequency Doubler Using GaAs Schottky Barrier Diodes<br><i>Changfei Yao, Jinping Xu, Kang Ying (China Mainland)</i>                                  | 1193 |
| P.76                                 | Novel RF coupler based on cavity<br><i>Jiusheng Li, Ji-xiang Zhao, Yan-long Kang, Li-ming Xuan (China Mainland)</i>   | 1196 |
| P.77                                 | Spatial-harmonic magnetrons - THz electromagnetic radiation oscillators<br><i>Victor D. Yeryomka, M. A. Kopot, O. P. Kulagin (Ukraine)</i>                              | 1199 |
| P.78                                 | Multibeam reflecting nanoklystron<br><i>Victor D. Yeryomka, A. A. Kurayev, A. V. Aksenchyk (Ukraine)</i>  | 1202 |
| P.79                                 | Types of Primary Electrons Sources for Terahertz Cold-Cathode Magnetron<br><i>Daniel V. Yeryomka (Ukraine)</i>  | 1204 |

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Room B

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**ORAL Session: I24A1 (11 presentations)**  
**Microwave Antennas (II)**

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|               |   |      |
|---------------|---|------|
| 8:00 - 8:20   | Broadband Printed-Circuit Elliptical Dipole Antenna Covering 750MHz-6.0 GHz<br><i>Chun-Chi Lee, Chia-Wei Wang, Rainfield Y. Yen, Hsin-Sheng Huang (Taiwan)</i>                  | 1207 |
| 8:20 - 8:40   | Slot-coupled Circularly Polarized Square Patch Antenna for Electronic Toll Collection System<br><i>Shunbo Zhang, Yuan Zhuang, shouzheng Zhu (China Mainland)</i>                | 1210 |
| 8:40 - 9:00   | 45° Linearly Polarized Substrate Integrated Waveguide-Fed Slot Array Antenna<br><i>Qingfeng Zhang, Yilong Lu (Singapore)</i>  | 1214 |
| 9:00 - 9:20   | Aperture Coupling Two-layered Dual-band RFID Reader Antenna Design<br><i>Zhishu Xu, Xiuping Li (China Mainland)</i>   | 1218 |
| 9:20 - 9:40   | A New Resonant Frequency Tunable RFID Tag Antenna Design<br><i>Li Zhang, Xiuping Li (China Mainland)</i>  | 1222 |
| 9:40 - 10:00  | A novel broadband circularly polarization microstrip antenna<br><i>yang xiang, zuping qian, shoujun zhao, junsong bao (China Mainland)</i>                                      | 1226 |
| 10:00 - 10:20 | (Tea Break)   |      |
| 10:20 - 10:40 | Development of Pulse Radiation Antennas<br><i>Bo Sun, jinghui qiu, chun zhang, Weibo Deng (China Mainland)</i>  | 1230 |
| 10:40 - 11:00 | The research of H-shaped coupling slot microstrip antenna array<br><i>Jia-Hui Fu, Guo-Hui Yang, Min Liu, Qun Wu, Le-Wei Li (China Mainland)</i>                                 | 1234 |
| 11:00 - 11:20 | A double-fed broadband planar antenna for mobile handset application<br><i>Yingxin Yang (China Mainland)</i>  | 1238 |
| 11:20 - 11:40 | Planar Miniature Elliptical Monopole Antenna for Ultra Wideband Radios<br><i>Bo Tian, Cunqian Feng, Mingchun Deng (China Mainland)</i>  | 1240 |
| 11:40 - 12:00 | Calculation of Resonating Frequency of a Rectangular Microstrip Antenna Using Artificial Neural Network<br><i>vandana vikas thakare, Pramod Singhal, Vivek Kushwaha (India)</i> | 1243 |

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Room C

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**ORAL Session: I24A2 (11 presentations)**  
**Passive Devices and Circuits (II)**

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|               |  |      |
|---------------|--|------|
| 8:00 - 8:20   | Synthesis of UWB Bandpass Filter by Multistage of One-Wavelength Commensurate SIRs<br><i>Chun-Ping Chen, Zhewang Ma, Tetsuo Anada (Japan)</i>  | 1247 |
| 8:20 - 8:40   | A Novel Fractal Geometry for Harmonic Suppression in Parallel Coupled-Line Microstrip BandPass Filter<br><i>Hossein Karimi zarajabad, Saeid Nikmehr (Iran)</i>   | 1251 |
| 8:40 - 9:00   | A Compact Dual-Band Filter Using S-Shaped Stepped Impedance Resonators<br><i>Fu-Chang Chen, Qing-Xin Chu (China Mainland)</i>  | 1255 |
| 9:00 - 9:20   | A Modified Two-section UWB Wilkinson Power Divider<br><i>Xing-ping Ou, Qing-Xin Chu (China Mainland)</i>   | 1258 |
| 9:20 - 9:40   | A Novel Triple-band Filter with Transmission Zeros Using Tri-section SIRs<br><i>Xue Ming Lin, Qing-Xin Chu (China Mainland)</i>  | 1261 |
| 9:40 - 10:00  | Novel Enhanced and Miniaturized 90° Coupler for 3G EH Mixers<br><i>Souren Shamsinejad, Mohammad Soleimani, Nader Komjani (Iran)</i>  | 1264 |
| 10:20 - 10:40 | Novel Miniaturized Wilkinson Power Divider for 3G Mobile Receivers<br><i>Souren Shamsinejad, Mohammad Soleimani, Nader Komjani (Iran)</i>  | 1268 |
| 10:40 - 11:00 | A New Method for Cross-Coupled Filters Synthesis through Optimization<br><i>Zhi-Hong Tu, Qing-Xin Chu, Jian-Hua Luo (China Mainland)</i>   | 1271 |
| 11:00 - 11:20 | Analysis and Modeling of IPD for Spiral Inductor on Glass Substrate<br><i>ShiuanMing Su, SungMao Wu, ChiChang Lai, YuChe Tai, WangYu Lin, ShengWei Guan (Taiwan)</i>   | 1274 |
| 11:20 - 11:40 | Broadband and Planar Microstrip-to-Waveguide Transitions in Millimeter-Wave Band<br><i>Kunio Sakakibara, Masato Hirono, Nobuyoshi Kikuma, Hiroshi Hirayama (Japan)</i>   | 1278 |
| 11:40 - 12:00 | A Novel, Fast and Accurate Approach for Coupling Factor Computation between Square Open Loop Resonators Using Fuzzy Inference Method<br><i>payman Rezaee, Nasrin Nasr Esfahani, Majid Tayarani, Nasser Mozayani (Iran)</i> | 1282 |

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Room D

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**ORAL Session: I24A3 (10 presentations)**  
**Computational Electromagnetics (III)**

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|               |  |      |
|---------------|--|------|
| 8:00 - 8:20   | FDTD Analysis of 2-D Unmagnetized Plasma Photonic Crystals<br><i>lu lu, Shaobin Liu (China Mainland)</i>   | 1287 |
| 8:20 - 8:40   | Effects of an Electrically Large Rotation Ellipsoid Radome on the Radiation Characteristics of Two Kinds of Antennas<br><i>Bing Hu, Xiaowen Xu, Mang He, Ying Zheng (China Mainland)</i>                       | 1290 |
| 8:40 - 9:00   | Complex Permittivity Extraction of Dielectric Samples in Waveguide<br><i>Uma Balaji (United States)</i>  | 1294 |
| 9:00 - 9:20   | Analysis of Scattering from Sphere Coating Plate and Dihedral Corners Using MLFMM<br><i>Xin Li, Changying Wu, Xiaolong Chen, kai Zhang, Jiadong Xu (China Mainland)</i>  | 1298 |
| 9:20 - 9:40   | Preconditioned Sparse-Matrix/Canonical Grid Algorithm for Fast Analysis of Microstrip Structure<br><i>Wei Zhuang, Huiliang Jia, Gui Wang, Rushan Chen (China Mainland)</i>                                     | 1301 |
| 9:40 - 10:00  | A Hierarchical Two-level Spectral Preconditioning Technique for Cavity Scattering Problems<br><i>Ming Chen, Dazhi Ding, Zhenhong Fan, Rushan Chen, Edward K.N Yung (China Mainland)</i>                        | 1304 |
| 10:00 - 10:20 | (Tea Break)  |      |
| 10:20 - 10:40 | Mass Lumping Techniques Combined With 3D Time-domain Finite-element Method for the Vector Wave Equation<br><i>Zhenbao Ye, Lei Du, Zhenhong Fan, Rushan Chen (China Mainland)</i>                               | 1307 |
| 10:40 - 11:00 | Loop/Tree Base Function of AIM for Analysis of Microstrip Models of Complex Geometry and Minute Features<br><i>Ning An, Jinquan Liu, Zhenhong Fan, Daoxiang Wang, Rushan Chen (China Mainland)</i>             | 1311 |
| 11:00 - 11:20 | A Spectral Multiresolution Preconditioner Combined with Multilevel Fast Multipole Algorithm for the Fast Monostatic RCS Calculation<br><i>Jian Zhu, Jianjun Ding, Dazhi Ding, Rushan Chen (China Mainland)</i> | 1315 |
| 11:20 - 11:40 | SMCG Method Combined with Multiresolution Technique for Analysis of Microstrip Circuits<br><i>Yunqin Hu, Jinquan Liu, Dazhi Ding, Rushan Chen (China Mainland)</i>   | 1318 |

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Room E

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**ORAL Session: I24A4 (6 presentations)**  
**Low-Noise Devices and Techniques**

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|              |   |             |
|--------------|---|-------------|
| 8:00 - 8:20  | Microwave Modeling and Parameter Extraction Method for PHEMT (Invited)<br><i>Jianjun Gao, Xiuping Li (China Mainland)</i>   | <b>1323</b> |
| 8:20 - 8:40  | Design of A 1.6GHz Low Phase Noise Oscillator<br><i>Bing Zhang, Jing Li, Jinhong Zuo, Wenmei Zhang (China Mainland)</i>   | <b>1327</b> |
| 8:40 - 9:00  | A 3-10GHz Bandwidth Low Noise Amplifier for Ultra-wideband Application Using SiGe HBT Technology<br><i>Jia Li, Rong Wan Zhang, Yun Hong Xie, Wei Zhang, Jian Li He, Pei Shen, Ning Jun Gan (China Mainland)</i> | <b>1330</b> |
| 9:00 - 9:20  | A Wideband Variable Gain Differential CMOS LNA for Multi-standard Wireless LAN<br><i>hao zhang, Zhiqun Li, Zhigong Wang (China Mainland)</i>  | <b>1334</b> |
| 9:20 - 9:40  | Design, Simulation and Fabrication of Low Phase Noise and Stable Frequency Six Folder<br><i>Javad s Meiguni, Manoochehr Kmyab (Iran)</i>  | <b>1338</b> |
| 9:40 - 10:00 | A 3-5GHz gm-Boosted Common-Gate CMOS UWB LNA with a Common-Source Auxiliary Circuit<br><i>Jinhua Liu, Guican Chen, Hong Zhang (China Mainland)</i>  | <b>1342</b> |

10:00 - 10:20 (Tea Break)

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**ORAL Session: I24A5 (5 presentations)**  
**High-Power Devices and Techniques**

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|               |  |             |
|---------------|--|-------------|
| 10:20 - 10:40 | Experiment Research of the axis-encircling large-orbit Cusp Electronic-gun<br><i>wenqiang lei, Junping Zhao, Enguan Zhang, Jun Zhao (China Mainland)</i>   | <b>1347</b> |
| 10:40 - 11:00 | Accurate Identification of Static Nonlinear Properties of Wideband RF Power Amplifiers<br><i>Taijun Liu, Yan Ye, Slim Boumaiza, Mohamed Helaoui, Oualid Hammi, Fadhel M. Ghannouchi (China Mainland)</i> | <b>1351</b> |
| 11:00 - 11:20 | High Power Microwave generation by relativistic Backward wave Oscillator<br><i>Lalit Gupta, Y Choyal, Prasad Deshpande, K.P. Maheshwari, K.C. Mittal (India)</i>   | <b>1355</b> |
| 11:20 - 11:40 | 6H-SiC lateral Power MOSFETs with an Asymmetrical Buried Oxide Double Step Structure<br><i>Samaneh Sharbati, Ali Asghar Orouji, M. Fathipour (Iran)</i>  | <b>1359</b> |
| 11:40 - 12:00 | Accurate Modeling of Wideband RF Doherty Power Amplifiers Using Dynamic Nonlinear Models<br><i>Yan Ye, Taijun Liu, Zhiwei Fan, Xingbin Zeng, Jiaming He, Fadhel M. Ghannouchi (China Mainland)</i>       | <b>1363</b> |

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Room F

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**ORAL Session: I24A6 (5 presentations)**  
**Radar and Broadband Communication Systems**

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|             |  |             |
|-------------|--|-------------|
| 8:00 - 8:20 | Trade-off between Sensitivity and Dynamic Range in Designing Digital Radar Receivers<br><i>Zhijian Li, L.P. Ligthart, Peikang Huang, Weining Lu, W.F. van der Zwan (Netherlands)</i>       | <b>1368</b> |
| 8:20 - 8:40 | An Ultra-Wideband Darlington Low Noise Amplifier Design Based on SiGe HBT<br><i>Pei Shen, Rong Wan Zhang, Yun Hong Xie, Yue Dong Jin, Wei Zhang, Jia Li, Ning Jun Gan (China Mainland)</i> | <b>1372</b> |
| 8:40 - 9:00 | Broadband Electromagnetic Scattering Echo Generation and Its ISAR Imaging Simulation<br><i>Yazhong Xu, Dongchen Zhang, Zhipin Yin, Weidong Chen (China Mainland)</i>                       | <b>1376</b> |
| 9:00 - 9:20 | Application of Hilbert-Huang Transform to MMW Doppler Radar<br><i>Wenwu Chen, Rushan Chen, Dazhi Ding (China Mainland)</i>   | <b>1380</b> |
| 9:20 - 9:40 | Short-range MMW PRC-CW Radar Utilizing Doppler Compensation<br><i>Zhao Zhao, Xiangquan Shi, Dazhi Ding (China Mainland)</i>  | <b>1384</b> |

10:00 - 10:20 (Tea Break)

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**ORAL Session: I24A7 (5 presentations)**  
**Microwave and Millimeter Wave Systems (I)**

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|               |  |             |
|---------------|--|-------------|
| 10:20 - 10:40 | Wideband On-chip RF MEMS Switches In A BiCMOS Technology For 60 GHz Applications<br><i>Guoan Wang, Hanyi Ding, Wayne Woods, Essam Mina (United States)</i>                   | <b>1389</b> |
| 10:40 - 11:00 | RF characteristics investigation of MEMS phase shifter with CPW discontinuities<br><i>Kai Tang, Qun Wu, Guo-Hui Yang, Xun-jun He, Jia-Hui Fu, Le-Wei Li (China Mainland)</i> | <b>1393</b> |
| 11:00 - 11:20 | Monolithic Silicon Micromachined Ka-band Filters<br><i>yuanwei YU, Yong Zhang, Jian Zhu (China Mainland)</i>   | <b>1397</b> |
| 11:20 - 11:40 | Millimeter-wave Design of Aperture-coupled Micromachined Patch Antennas<br><i>Fang HOU, Jian Zhu, yuanwei YU, Jing WU (China Mainland)</i>                                   | <b>1401</b> |
| 11:40 - 12:00 | Investigation of Material Identification with Terahertz Pulsed Imaging<br><i>Yingxin Wang, Ziran Zhao, Zhiqiang Chen, Li Zhang, Kejun kang (China Mainland)</i>              | <b>1405</b> |

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Room G

9:20 - 12:00

POSTER Session: I24A8 (53 presentations)

**Microwave and Millimeter Wave Systems**

- P.29 Design of the Superconducting Magnet System for a W-Band Gyrotron Oscillator  
*shouxi Xu, Yinming Dai, Yinong Su, Shichang Zhang, Zhihui Geng, Qianzhong Xue, Pukun Liu* **1410**  
(China Mainland)
- P.30 Miniaturization of C Band LTCC Channel Receiver Front-end SiP module  
*Xiangjun Zhang, Dagang Fang* (China Mainland) **1412**
- P.31 Effects of Transmitter Phase Noise on Millimeter Wave LFM CW Radar Performance  
*Li Wu, ShuSheng Peng, XiangQuan Xing* (China Mainland) **1415**

**High Speed Digital Circuits and SI**

- P.32 20-Gb/s 1:2 Demultiplexer in 0.18- $\mu$ m CMOS  
*Chang-chun Zhang, Zhi-gong Wang* (China Mainland) **1419**
- P.33 A Differential Quadrature Method for the Transient Analysis of Multiconductor Transmission Lines  
*Min Tang, Junfa Mao* (China Mainland) **1423**
- P.34 A Novel Leakage TRL Calibration Technique for Differential Devices  
*Liang Wan, Quanli Li, Jianhua Wu, Guoyu He* (China Mainland) **1427**

**EMI and EMC**

- P.35 Analysis of the Thermal effects of GaAs FETs under the High-power Electromagnetic Pulses  
*jianfeng xu, Wenyan Yin, Junfa Mao, Lewei Li, James L Drewniak* (China Mainland) **1431**
- P.36 An Investigation of Statistical Distribution Properties in Reverberation Chamber  
*Min Qu, Guizhen Lu, Jincai Lin, yue wang* (China Mainland) **1435**
- P.37 An Conducted Electromagnetic Interference (EMI) Noise Source Modeling Method Using Hilbert Transform  
*Xiaohui Qiu, Yang Zhao, Shijin Li, Ningqiu Jiang, XueHong Wu* (China Mainland) **1438**
- P.38 Current Probe Method Applied in Conductive Electromagnetic Compatibility (EMC)  
*Yang Zhao, Kye Yak See, Shijin Li, Ningqiu Jiang, Qi Wang, Yi Cao, XueHong Wu* (China Mainland) **1442**
- P.39 Fast Diagnosis, Prediction and Signal Characterization of Radiated Electromagnetic Interference (EMI) Noise  
*Yang Zhao, Kye Yak See, Shijin Li, Yongchao Luo* (China Mainland) **1446**
- P.40 Detailed Design of the Transient Grounding Test System Based on the Experiment  
*Hongbing He, Bihua Zhou, Fei Guo, Xin Meng* (China Mainland) **1450**
- P.41 SSA Realization for Spectrum Shaping and NBI Suppression in Cognitive UWB Radios  
*Changguo Wu, Guangxin Jiang, Hongbo Zhu* (China Mainland) **1454**
- P.42 Experimental Investigation of Transient Grounding Resistance Characteristics on the Radialized Grounding Electrode  
*Jiaqing CHEN, Bihua ZHOU, fei Zhao, Xiaofang HUANG* (China Mainland) **1458**
- P.43 Analysis of Shielding Effectiveness of Conductive Cement-based Materials in HEMP Environment



*fei guo, Bihua ZHOU, Cheng Gao, Hailin Chen (China Mainland)* 1462

### **Wireless RF Components and Systems**

- P.44 Miniature Microstrip Isosceles Triangular Resonator filter  
*Jian-Kang Xiao, Wu-Sheng Ji, Hui-Fen Huang (China Mainland)* 1466
- P.45 Wideband Microstrip Bandpass Filter Using Single Patch Resonator  
*Jian-Kang Xiao, Hui-Fen Huang, Wu-Sheng Ji (China Mainland)* 1470
- P.46 ANFIS Implementation in FPGA for Power Amplifier Linearization with Digital Predistortion  
*Jianfeng Zhai, Jianyi Zhou, Lei Zhang, Jianing Zhao, Wei Hong (China Mainland)* 1474
- P.47 A Low-phase-noise Frequency Synthesizer for Single-chip CMOS UHF RFID Reader (final version)  
*Runxi Zhang, Yihao Chen, Chunqi Shi, Zongshen Lai (China Mainland)* 1477
- P.48 A Low-Cost Four-Channel Variable Gain Amplifier Module for 900MHz GSM Base Station Receiver  
*Yuan Zheng, Feng Qian, Zhengrong Xu, Xiaopeng Li, Haitao Ying, Xinyu Chen (China Mainland)* 1481
- P.49 A Fully Integrated Power Amplifier for 802.11a Application  
*Yanjun Peng, Jiayou Song, zhigong wang (China Mainland)* 1485
- P.50 A Compact Quasi-lumped LTCC Band Pass Filter for C-band Wireless Application  
*WeiHua Yu, Bo Yuan, Houjun Sun (China Mainland)* 1488
- P.51 A fully integrated multi-band VCO design with capacitive coupling for WLAN/WiMAX applications  
*chih-yuan Kao, Jeng-Rern Yang (Taiwan)* 1491
- P.52 Analysis and Simulation of Feedback Capacitance Effect in Class-E Power Amplifiers  
*Zhongyu Liao, Xiaowei Zhu (China Mainland)* 1495
- P.53 A CMOS Current Reused Low-Noise Amplifier for Ultra-Wideband Wireless Receiver  
*Zhe-Yang Huang, Che-Cheng Huang, Yeh-Tai Hung, Meng-Ping Chen (Taiwan)* 1499
- P.54 Design and Realization of a Highly Integrated UHF RFID Reader Module  
*Xingdong Pang, Xiongsheng Yao, C.P. Liang, Wei Hong (China Mainland)* 1503
- P.55 Design and Realization of a Highly Integrated IEEE802.11n Wireless Access Point Radio  
*Xiongsheng Yao, Wenhui Xu, C.P. Liang, Xiaowei Zhu, Wei Hong (China Mainland)* 1506
- P.56 Study of Dual-Balanced Mixer with Half Mode Substrate Integrated Waveguide  
*yanwei wang, jianyi zhou, Wei Hong (China Mainland)* 1509
- P.57 Zero-IF for GSM transmitter Applications  
*Na Zhao, Jie Deng, Xiangling Li, Lintao Hou (China Mainland)* 1512

### **Radar and Broadband Communication Systems**

- P.58 Symmetry Filtering Method for GPR Clutter Reduction  
*tingjun li, Lingjiang Kong, Zheng-ou Zhou (China Mainland)* 1515
- P.59 Pulse Design of UWB Short Range Radar for Vehicular Application  
*Bin Xia, Nan Xie (China Mainland)* 1518
- P.60 Multi-Component Target Detecting of SAR Based on Improved WVD-HT for Frequency-modulation Jamming  
*Chunjian Xie, Chenjiang Guo, Fang Yang, Jiadong Xu (China Mainland)* 1521
- P.61 Channel Model Estimation of OFDM for UWB Radar in Medical Near-fall Detection and Warning System  
*Zaifeng Shi, Suying Yao, Hua Tian (China Mainland)* 1524
- P.62 A Measure of Mobility for Evaluating Mobile Ad Hoc Network Performance  
*Linna He, wei yin (China Mainland)* 1528

|                              |   |      |
|------------------------------|---|------|
| P.63                         | Impact of Signal Bandwidth on Airborne Wideband Radar echoes<br><i>Jianhong Zhao, Jianyu Yang, Wei Peng, Bin Tang (China Mainland)</i>  | 1532 |
| P.64                         | Radar Target Recognition Based on A Kerne Double Discriminant Subspaces Method<br><i>Hualin Liu, Wanlin Yang (China Mainland)</i>   | 1536 |
| P.65                         | Methods of Eliminating Doppler Dispersion in Synthetic Wideband Signal<br><i>wei peng, Xuegang Wang, Jianhang Zhao (China Mainland)</i>   | 1540 |
| <b>MEMS</b>                  |   |      |
| P.66                         | Reflection and Dielectric Characteristics of TbDyFe Thin Film for High Frequency MEMS Sensors and Actuators<br><i>zhiqiang Yang, mengchao Weng (China Mainland)</i>                       | 1544 |
| P.67                         | Micro-cantilever Array and its Application in Gas Sensor<br><i>Wu Pan, Ning Li (China Mainland)</i>   | 1547 |
| <b>PBG and Metamaterials</b> |   |      |
| P.68                         | Differential Phase Shifters Using Composite Right/Left Handed Transmission Line<br><i>Jun He, Bingzhong Wang (China Mainland)</i>   | 1551 |
| P.69                         | Novel Microstrip Bandpass Filter with Substrates of Fractal Cantor Distribution<br><i>zhong yin xiao, Zi Hua Wang, Hong Hong Hu, Shan Gao (China Mainland)</i>                            | 1554 |
| P.70                         | Perfectly Imaging in an Equivalent Infinite Slab Lens System Composed of Loaded Transmission Line Metamaterial<br><i>Xinhe Xu, Guangjun Wen, Yuehong Gan, Kang Xie (China Mainland)</i>   | 1557 |
| P.71                         | Optimization Design of Ground Plane PBG Structure of T-shape Microstrip Line by Improved FGA<br><i>Fang Xiao, Dong Yan, Li Sun (China Mainland)</i>                                       | 1561 |
| P.72                         | Numerical Design of Arbitrarily Shaped Electromagnetic Cloaks<br><i>xinyu hou, qian xu, pu niu, Fernando Lisboa Teixeira (China Mainland)</i>   | 1565 |
| P.73                         | A Microstrip Phase Shifter Using Complementary Metamaterials<br><i>Mingzhi Lu, Jessie Yao Chin, Ruopeng Liu, Tiejun Cui (China Mainland)</i>  | 1569 |
| P.74                         | Coupling Characteristics between One-dimensional Photonic Crystals and Metamaterials<br><i>Ziyang Li, Liwei Zhang, Youzhen Wang, Yewen Zhang (China Mainland)</i>                         | 1572 |
| P.75                         | Investigations of Photonic band gap microwave-driven accelerating cavity<br><i>cong feng wu, zhiping li, ruiying song, sai dong, xiaodong he (China Mainland)</i>                         | 1576 |
| P.76                         | Tunable Filters Based on the Varactor-Loaded Split-Ring Resonant Structure Coupled to the Microstrip Line<br><i>haiyang li, Yewen Zhang, li he (China Mainland)</i>                       | 1580 |
| P.77                         | Inhomogeneous Composite Right-/Left-Handed Transmission Line<br><i>WenJie WEI, Hongqiang LI (China Mainland)</i>  | 1583 |
| P.78                         | Experimental study of the left-handed metamaterials containing distributed elements<br><i>Li He, Yong Sun, Yewen Zhang, Hong Chen (China Mainland)</i>                                    | 1587 |
| P.79                         | Resonator and Bandpass Filter Using CRLH Transmission Line Based on Microstrip-Coplanar-Waveguide Structure<br><i>Mingming Sun, Qin Weiping, Haimeng Wang, Dong Chen (China Mainland)</i> | 1590 |
| P.80                         | Research of Hybrid Photonic Crystal Accelerating Structures<br><i>Hui Zhang, Congfeng Wu, zhiping li, xiaodong he (China Mainland)</i>  | 1593 |
| P.81                         | Multifractal properties of one dimension quasi-period photonic crystal<br><i>yuannong zhang, rui zhou (China Mainland)</i>  | 1597 |

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Room A

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**ORAL Session: I24P1 (11 presentations)**  
**PBG and Metamaterials (II)**

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|               |   |             |
|---------------|---|-------------|
| 13:30 - 13:50 | Performance Improvement of Microstrip Patch Antenna and Array with Electromagnetic<br><i>Fangming Zhu, Ya Xia, Juanjuan Ye (China Mainland)</i>   | <b>1602</b> |
| 13:50 - 14:10 | Locating the Operation-Band of PBG Waveguide Using LHM Concept<br><i>Rui-Bing Dong, Qing-Xin Chu, Jian-Qiang Gong (China Mainland)</i>  | <b>1606</b> |
| 14:10 - 14:30 | A Novel Broadband EBG Using Multi-period Mushroom-like Structure<br><i>Le Liang, Chang-hong Liang, Xun-wang Zhao, Zi-jian Su (China Mainland)</i>   | <b>1609</b> |
| 14:30 - 14:50 | A Novel Metamaterial-Inspired Electrically Small Antenna Fed by CPW<br><i>Meng Li, Xian Qi Lin, Jessie Yao Chin, Ruo Peng Liu, Tie Jun Cui (China Mainland)</i>   | <b>1613</b> |
| 14:50 - 15:10 | A Planar Microstrip Implementation of Dual-Composite Right/Left handed Transmission Line<br><i>Bo Li, Jin Ping Yang, Wen wu (China Mainland)</i>  | <b>1617</b> |
| 15:10 - 15:30 | Coupling Characteristics between Composite Right-/Left-Handed Transmission Line and<br>Conventional Transmission Line<br><i>youzhen wang, Yewen Zhang, haiyang li, li he, Fuqiang Liu, Hong Chen (China Mainland)</i> | <b>1620</b> |
| 15:30 - 15:50 | (Tea Break)   |             |
| 15:50 - 16:10 | Peculiar Radar Cross Section Properties of Metamaterials with Zero Index of Refraction<br><i>wanzhao Cui, Jia Chen, Wei Ma, Lede Qiu (China Mainland)</i>   | <b>1624</b> |
| 16:10 - 16:30 | Slow and Frozen Waves in a Planar Air Waveguide with Anisotropic Metamaterial Cladding<br><i>Tian Jiang, Yijun Feng (China Mainland)</i>  | <b>1627</b> |
| 16:30 - 16:50 | Magnetic Resonance Leads to Negative Refraction<br><i>Jessie Yao Chin, Ruopeng Liu, Tie Jun Cui (China Mainland)</i>  | <b>1631</b> |
| 16:50 - 17:10 | A Novel Compact Uni-planar Electromagnetic Band-gap (UC-EBG) Structure<br><i>wei wang, Xiang yu Cao, Wan yin Zhou, Tao Liu (China Mainland)</i>   | <b>1634</b> |
| 17:10 - 17:30 | A Small dual-band EBG structure for Microwave<br><i>wei wang, Xiang-yu Cao, Rui Wang, Jia-jun Ma (China Mainland)</i>   | <b>1637</b> |

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Room B

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**ORAL Session: I24P2 (11 presentations)**  
**Microwave Antennas (III)**

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|               |  |      |
|---------------|--|------|
| 13:30 - 13:50 | Fractal Terminated Line-Fed Microstrip Slot Antenna<br><i>ali azarbar, hamid reza hassani, mohammad jahanbakht (Iran)</i>                                      | 1641 |
| 13:50 - 14:10 | A Compact Square-Ring Printed Monopole Ultra Wideband Antenna<br><i>Hongwei, Deng, Xiaoxiang He, Binyan Yao, Yonggang Zhou (China Mainland)</i>                | 1644 |
| 14:10 - 14:30 | A Microstrip-fed Wide-band Tapered Slot Antenna<br><i>guoquan zhang, Liming Xu, Aixin Chen, Donglin Su (China Mainland)</i>                                    | 1647 |
| 14:30 - 14:50 | Optimized Design of Circularly Polarized Wideband Stacked Microstrip Antenna With Single-fed<br><i>Jianfeng Ye, Weizhang Pang (China Mainland)</i>             | 1651 |
| 14:50 - 15:10 | A UWB Antenna with Novel L Branches on Ground for Band-Notching Application<br><i>Yunlong Cai, Zhenghe Feng (China Mainland)</i>                               | 1654 |
| 15:10 - 15:30 | Analysis and Design of Novel Directional Ultrawide-band Antennas<br><i>Lingling Zhong, Jinghui Qiu, Ning Zhang, Bo Sun (China Mainland)</i>                    | 1658 |
| 15:30 - 15:50 | (Tea Break)  |      |
| 15:50 - 16:10 | Design of Broadband Stacked E-shaped Patch Antenna<br><i>Mohammad Abdul Matin, M A Mohd Ali (Malaysia)</i>   | 1662 |
| 16:10 - 16:30 | A Novel Dielectrically-Loaded Antenna for GPS/CNSS Dual-Band Applications<br><i>Sha Liu, Qing-Xin Chu (China Mainland)</i>                                     | 1664 |
| 16:30 - 16:50 | A Sparse Antenna Array with Offset Parabolic Cylinder Reflector at Millimeter Wave Band<br><i>Jian Dong, Qingxia Li, Wei Guo, Yaoting Zhu (China Mainland)</i> | 1667 |
| 16:50 - 17:10 | A miniature coplanar waveguide-fed ultra-wideband antenna<br><i>Yahui Zhao, Jinping Xu, Kang Yin (China Mainland)</i>  | 1671 |
| 17:10 - 17:30 | Simulation Design of Four-Arm Cavity Backed Dielectric Loaded UWB Spiral Antenna<br><i>Hongli Wang, Min Zhang (China Mainland)</i>                             | 1675 |

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Room C

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**ORAL Session: I24P3 (6 presentations)**  
**Microwave Remote Sensing and Sensors**

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|---------------|--|------|
| 13:30 - 13:50 | Simulation of Passive Microwave Penetration Features in Dry Medium<br><i>Zhiguo Meng, Shengbo Chen, Cai Liu, Xiaojuan Du, Zijun Wang (China Mainland)</i>  | 1680 |
| 13:50 - 14:10 | Microwave Transfer Models and Brightness temperature simulations of MWS for Remote Sensing Lunar Surface on CE-1 Satellite<br><i>Zhenzhan Wang, Yun Li, Jingshan Jiang, Xiaohui Zhang (China Mainland)</i> | 1683 |
| 14:10 - 14:30 | A Polarimetric Scattering Research of Ocean Surface Based on the Matrix of Scattering Facet<br><i>Wei Liu, Li Xin Guo, A. Q. Wang (China Mainland)</i>   | 1687 |
| 14:30 - 14:50 | Calibration of the monostatic stepped-frequency GPR with a Vivaldi UWB antenna<br><i>Faming LIU (Netherlands)</i>  | 1691 |
| 14:50 - 15:10 | The Optimization Design for Microwave Wide Band Blackbody Calibration Target<br><i>Feng Nian, Wei Wang (China Mainland)</i>  | 1695 |
| 15:10 - 15:30 | An Aperture Synthesis Radiometer at Millimeter Wave Band<br><i>Qingxia Li, Ke Chen, Wei Guo, Liang Lang, Fangmin He, Liangbing Chen, Zubiao Xiong (China Mainland)</i>                                     | 1699 |

15:30 - 15:50 (Tea Break)

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**ORAL Session: I24P4 (5 presentations)**  
**Biological Effects and Medical Applications**

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- |               |  |      |
|---------------|--|------|
| 15:50 - 16:10 | Experimental Studies on Microwave Ablation in Vitro Animal Tissues with Microwave Percutaneous Coagulator<br><i>Yumei Chang, Wenquan Che, Lisheng Yang, Lijiang Yang, Guoqiang Chen (China Mainland)</i> | 1703 |
| 16:10 - 16:30 | Study on the Breast Cancer Detection by UWB Microwave Imaging<br><i>xia xiao, Takamaro Kikkawa (China Mainland)</i>  | 1707 |
| 16:30 - 16:50 | The discussion on the biological effect of mobile phone radiation<br><i>Yang Li, Guizhen Lu (China Mainland)</i>   | 1711 |
| 16:50 - 17:10 | Compare of Human Head Model SAR about Different Frequency Radiation in BAN<br><i>Zhanqi Zheng, jinling zhang, lvying hua, jinsheng yang (China Mainland)</i>   | 1714 |
| 17:10 - 17:30 | Application of CST Time Domain Algorithm in the Electromagnetic Simulation Standard of the SAR for mobile phone<br><i>Nan Qi, Min Zhang, Tilmann Wittig, Alexander Prokop (China Mainland)</i>           | 1717 |

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Room D

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**ORAL Session: I24P5 (8 presentations)**  
**Electromagnetic Field Theory**

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|               |  |      |
|---------------|--|------|
| 13:30 - 13:50 | Analysis of Electromagnetic Propagation into Reinforced concrete walls by FEM-PML Methods<br><i>Ping Liu, Qi-tao Yang, Yun-liang Long (China Mainland)</i>   | 1722 |
| 13:50 - 14:10 | Investigation on Backscattering from 1D Weierstrass Rough Surface of Layered Medium<br><i>Xin Cheng Ren, Li Xin Guo (China Mainland)</i>   | 1726 |
| 14:10 - 14:30 | Synthesis of Resonant-Type CRLH Transmission Lines Based on CSRR with Dual-Band Behavior<br><i>Jian-Qiang Gong, Qing-Xin Chu (China Mainland)</i>  | 1730 |
| 14:30 - 14:50 | FDTD Analysis of the Left-Handed Materials and Its Application in Microwave Absorbing Stealth Materials<br><i>tao zhou, Shaobin Liu (China Mainland)</i>   | 1734 |
| 14:50 - 15:10 | Investigation of a Lossless Inhomogeneous and Anisotropic Metamaterial Covered Conductor Cylinder Illuminated by Electric-Line-Source<br><i>Kuang Zhang, Qun Wu, Fan yi Meng, Le Wei Li (China Mainland)</i> | 1738 |
| 15:10 - 15:30 | Novel Stabilizing Techniques for Time Marching Algorithms and Some Discussion<br><i>Shi-Wei Dong, Ying Wang, Wei Ma, Hong Chen (China Mainland)</i>  | 1742 |
| 15:30 - 15:50 | (Tea Break)  |      |
| 15:50 - 16:10 | Successive SIW (Substrate Integrated Waveguides) Types for Width Reductions by Physical Reasoning and Formulas by Analytical(Use of) MoM<br><i>Y. L. Chow, Wenquan Che (China Mainland)</i>                  | 1746 |
| 16:10 - 16:30 | Research on the Transmissivity of Some Clothing Materials at Millimeter-wave Band<br><i>Zelong Xiao, Jianzhong Xu, Taiyang Hu (China Mainland)</i>   | 1750 |



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Room E

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14:10 - 15:10

**IEEE AP-S Distinguished Lecture**

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Terahertz Technology for Space and Earth Applications  
*Peter de Maagt* (Netherlands)

1755

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Room F

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**ORAL Session: I24P8 (10 presentations)**  
**Microwave and Millimeter Wave Systems (II)**

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| 13:30 - 13:50 | Study on the Detection of Coating Stealth Ground Target by Millimeter-wave Radiometer<br><i>Taiyang Hu, Zelong Xiao, Jianzhong Xu (China Mainland)</i>  | 1757 |
| 13:50 - 14:10 | An Optimised Calibration Method of Six-port Reflectometer<br><i>xz xiong, c. liao, hq xiao (China Mainland)</i>   | 1761 |
| 14:10 - 14:30 | A Novel Microstripe metamaterial Transmission Line Architecture<br><i>xiang yang, zuping qian, bao junsong (China Mainland)</i>   | 1765 |
| 14:30 - 14:50 | High Efficiency 600-mW pHEMT Distributed Power Amplifier Employing Drain Impedance Tapering Technique<br><i>Narendra Kumar, M. F. Ain, Lokesh Anand, Sangaran Pragash, S. I. S. Hassan, V. Zhurbenko (Malaysia)</i> | 1769 |
| 14:50 - 15:10 | The Research of Near-field INISAR Imaging Diagnosis<br><i>huaqiang liang, mingyi he, nanjing li, linxi zhan (China Mainland)</i>  | 1773 |
| 15:10 - 15:30 | Characterization of LTCC Substrate up to 100 GHz<br><i>Sulav Adhikari, A. Stelzer, A. Springer, C. Wagner, C. Korden, M. Stadler (Austria)</i>  | 1776 |
| 15:30 - 15:50 | (Tea Break)   |      |
| 15:50 - 16:10 | Design and Simulation of Active Frequency Tripler with Efficient and Low Spurious Response<br><i>Behbod Ghalamkari, Abbas Mohammadi, Abdolali Abdipour (Iran)</i>   | 1780 |
| 16:10 - 16:30 | Optimum Image Fusion Technique for ALOS Data<br><i>Yu Zeng, Jixian Zhang, Guangliang Wang, Yingcheng Li (China Mainland)</i>  | 1784 |
| 16:30 - 16:50 | Study on Brand Identification of Monosodium Glutamate Using Sensitive Wavelengths of Short-wave Near Infrared Spectroscopy<br><i>xiaojing chen, Di Wu, Yong He, Shou Liu, Shuijuan Feng (China Mainland)</i>        | 1788 |
| 16:50 - 17:10 | Short-wave Near-infrared Spectroscopy Technique for Fast Determination of Carbohydrate Content in Milk Powder<br><i>Di Wu, xiaojing chen, Yong He, Haiqing Yang, Shuijuan Feng (China Mainland)</i>                 | 1792 |



2008-04-24 PM

Room G

14:10 - 16:50

POSTER Session: I24P9 (79 presentations)

**Microwave-Optical Design**

- P.1 Photonic Generation of Millimeter-Wave-Band 16-QAM and 16-ASK Signals Based on Orthogonal Polarization Multiplexing **1797**  
*Ye Zhang, Kun Xu, Jianqiang Li, Hao Huang, Jian Wu, Xiaobin Hong, Jintong Lin (China Mainland)*
- P.2 Analysis of a Radio-Over-Fiber System With Single Optical Source **1799**  
*hui Peng, yang Su, weilei Wu, xunZhu Ying (China Mainland)*
- P.3 Millimeter wave Properties of Photo-Illuminated Double Drift Indium Phosphide IMPATTs at Elevated Temperature **1802**  
*Moumita Mukherjee, Jayanta Mukhopadhyay, Jyoti Prasad Banerjee, Sitesh Kumar Roy (India)*

**Microwave Antennas**

- P.4 ANALYSIS AND DESIGN OF A NOVEL COMPACT UWB ANTENNA **1806**  
*Bin Huang, Yuan Yao, Zhenghe Feng (China Mainland)*
- P.5 A millimeter-wave conical conformal low sidelobe microstrip antenna array **1810**  
*Min Liu, Zirui Feng, Kuang Zhang, Qun Wu (China Mainland)*
- P.6 Research on the Characteristics of Flexible Antennas for General Applications **1814**  
*Xingyu Zhang, Anping Zhao, Junhong Wang (China Mainland)*
- P.7 A New Band-notched Printed Monopole Antenna for UWB Applications **1818**  
*Xuncaai Yin, Chengli Ruan, Jiahui Chu, Chaoyuan Ding (China Mainland)*
- P.8 Novel UHF RFID tag antenna with shorted stubs mountable on the metallic objects **1822**  
*Qiu-Zhen Chen, Bin-jie Hu (China Mainland)*
- P.9 A Double Beam Radiated Leaky Wave Antenna Composed of Left-Handed Slab Loaded Hybrid Waveguide Using Planar Technology **1825**  
*Meng Huang, Shanjia Xu (China Mainland)*
- P.10 Leaky Characteristics of A New Omni-Directional Periodic Rod Antenna Gloved With A LHM Shell **1829**  
*Yongmei Pan, Shanjia Xu (China Mainland)*
- P.11 UWB antenna with Stop-band Notch and Return Nulls **1833**  
*yihua xie, zemng xie, qingxin chu (China Mainland)*
- P.12 Study of A Two-arm Sinuous Antenna and the Relevant Wideband Balun **1837**  
*Zhenhua Chen, Qunsheng Cao (China Mainland)*
- P.13 A Convenient Method to Design Dual-Frequency Circular-Polarization Patch Antenna **1841**  
*Bin Luo, Jianhua Li, Yiqiang Wu (China Mainland)*
- P.14 Synthesis of Array near to PEC Platform by Using UV/MoM-PO hybrid method and GA Approach **1845**  
*Hai-Tao Chen, Guo-Qiang Zhu, Si-Yuan He (China Mainland)*
- P.15 A miniaturized antenna for Ground Penetrating Radar **1849**  
*Jingjing Huang, Zhiwen Xiao, Yang Yang, Jianguo He, Peiguo Liu (China Mainland)*
- P.16 Research on Dual Polarization Wideband Antenna

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|      | <i>Ying Suo, Jinghui Qiu, Yeshe Yuan (China Mainland)</i>  | <b>1851</b> |
| P.17 | FDTD Analysis of a Plasma Helix Antenna<br><i>liang ma, qinggong guo (China Mainland)</i>  | <b>1854</b> |
| P.18 | Investigation on Ultra-wideband Printed Circular Monopole Antenna with Frequency-notched<br><i>Zhantao Yang, Li Li, Huazhi Wang (China Mainland)</i>   | <b>1858</b> |
| P.19 | The Analysis and Simulation of Focusing Characteristics of Ellipsoidal Antenna for<br>Millimeter-Wave Imaging<br><i>Nannan Wang, Jinghui Qiu, Weibo Deng (China Mainland)</i>  | <b>1862</b> |
| P.20 | High-Gain Broad-Band Cavity-Backed Slot Antenna for WLAN Applications<br><i>Qiu-Yi Zhang, Qing-Xin Chu, Han-Qing MA (China Mainland)</i>   | <b>1866</b> |
| P.21 | The Design and Implementation of Double Side Printed Patch Antenna<br><i>zhichen wang, hao wang, ming wei, qingrong li (China Mainland)</i>  | <b>1869</b> |
| P.22 | Multiple Stopbands Ultra Wide Band Antenna<br><i>chen yu, Wei Hong, Zhenqi Kuai (China Mainland)</i>   | <b>1872</b> |
| P.23 | Research on an Axially Slotted Cylinder Antenna Coated with Plasma Sheath<br><i>wei li, Jinghui Qiu, Weibo Deng, Ying Suo (China Mainland)</i>   | <b>1875</b> |
| P.24 | The Design of Ka-band LTCC Slot Antenna<br><i>jing fei, Bo Yan (China Mainland)</i>  | <b>1879</b> |
| P.25 | A Reconfigurable Compact Antenna for DVBH Application<br><i>Yang Kang, Haipeng Mi, Zhijun Zhang, Wenhua Chen, Zhenghe Feng (China Mainland)</i>  | <b>1882</b> |
| P.26 | A Compact Half E-shaped Patch Antenna with a Slotted U-Shaped Ground Plane<br><i>Feng-lin Sun, Xi Ren, Hai-dan He (China Mainland)</i>   | <b>1886</b> |
| P.27 | Parametric Study on the Mutual Coupling Reduction and the Corresponding Bandwidth of<br>Two Arrays<br><i>Hao Wang, Dagang Fang, XiaoKun Tang (China Mainland)</i>  | <b>1889</b> |
|      | <b>Scattering and Propagation</b>  |             |
| P.28 | Complete Polarization Conversion Characteristics of Dielectric Grating Composed of Left-<br>Handed Materials<br><i>Weihai Fang, Shanjia Xu (China Mainland)</i>  | <b>1892</b> |
| P.29 | Modeling of Metallic Landmine Electromagnetic Characteristic in GPSAR<br><i>Zhiwen Xiao, Jianguo He (China Mainland)</i>   | <b>1896</b> |
| P.30 | Angular Glint Modeling and Simulation for Complex Targets<br><i>Junji Chen, Fang Yang, kai Zhang, Jiadong Xu (China Mainland)</i>  | <b>1899</b> |
| P.31 | SCATTERING CHARACTERISTICS OF CONDUCTING HELIX<br><i>Kadhun Al-Majdi, Hu Bin-Jie, QI Ming, Raed AL-MOUSSAWY (China Mainland)</i>   | <b>1902</b> |
| P.32 | Investigation of Enhanced Optical Transmission Effect Through Doubly Periodic Metallic<br>Nanogratings<br><i>Alexander Lerer, Dmitriy Zelenchuk, Victoria Makhno, Pavel Makhno, Igor Kazmin (Russian<br/>Federation)</i> | <b>1906</b> |
| P.33 | A Novel Approach for Radio Propagation in Indoor Environment<br><i>YuanJian Liu, Yerong Zhang, Wei Cao (China Mainland)</i>  | <b>1910</b> |
| P.34 | Analysis of the Responses of the Buried Target in Transient Electromagnetic Prospecting by<br>FDTD<br><i>Hongbei Shi, Shu Yan, Qiao Fu (China Mainland)</i>  | <b>1913</b> |
| P.35 | Simulation of the Attenuation and Refraction of High Power Microwave Breakdown in the<br>Atmosphere<br><i>Tao Tang, Cheng Liao, Dan Yang, Jun Li (China Mainland)</i>  | <b>1916</b> |
| P.36 | Absorbing Properties of Frequency Selective Surface with Random Distributed Resistance<br>Patches  | <b>1919</b> |

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|                              | <i>Jun-Song Bao, Rui-Xin Wu, Zu-Ping Qian, Fan Yang, Yang Xiang, Hai-feng Chan (China Mainland)</i>   |      |
| P.37                         | Deconvolution method of near-far field translation<br><i>Ma Yongguang, He Guoyu (China Mainland)</i>  | 1922 |
| P.38                         | Microwave Absorption Properties of Anisotropic Materials Realized by Multi-layered Film Structures<br><i>Lin Zhao, Yijun Feng, Zhenbin Wang, Zhong Qian (China Mainland)</i>                                  | 1926 |
| P.39                         | Analytical Solution of Reflection Coefficient for Microwaves Oblique Incidence on a Non-uniform Magnetized Plasma Slab<br><i>jinjun mo, naichang yuan (China Mainland)</i>                                    | 1930 |
| P.40                         | Self-Adaptive Mesh of Time Domain Microwave Imaging of PEC object<br><i>Tao Wei, Cheng Liao, Jun Li (China Mainland)</i>  | 1934 |
| <b>Communication Systems</b> |   |      |
| P.41                         | Investigation of Multilevel Coded Modulation in the Application of the Adaptive OFDM System<br><i>Zhou Li, Guangfeng Bian, Ping Gu (China Mainland)</i>   | 1938 |
| P.42                         | Analyzing and Simulation on MANET System on Satellite Communication constellation<br><i>Jinyong Xu, Hangsheng Zhao, Yun Sun (China Mainland)</i>  | 1942 |
| P.43                         | GPS/DR Integrated Navigation system based on Adaptive Robust Kalman Filtering<br><i>Xiaoyun Yang, Heng He (China Mainland)</i>  | 1946 |
| P.44                         | Advanced SD Iterative Decoding Algorithm in MIMO Receiver<br><i>JiangLin Zhang, Jingfang Sun, Ping Yang (China Mainland)</i>  | 1950 |
| P.45                         | A New PTS Technique to Reduce The Peak to Average Power Ration of OFDM System<br><i>jing Gao, jinkuan Wang, zhibin Xie (China Mainland)</i>   | 1953 |
| P.46                         | The Application of MIMO-OFDM System in troposcatter communication<br><i>Fang Wang (China Mainland)</i>  | 1957 |
| P.47                         | Hybrid Filter Banks Optimization Design Using Total Least Square Solving<br><i>jie cheng, Wen-Yu LIU, Hong MA (China Mainland)</i>  | 1960 |
| P.48                         | Improving TD-SCDMA System Performance Using Ad Hoc Relaying<br><i>Xujie Li, Lianfeng Shen (China Mainland)</i>  | 1964 |
| P.49                         | Differential Space-Time Modulation with Loaded Eigen-Beamforming for Spatially Correlated Time-Varying Fading Channels<br><i>Binggang Huang, Zhijie Zhou, Yi Hui, Luwen Zhao, Yang Xiang (China Mainland)</i> | 1968 |
| P.50                         | Blind Frequency Synchronization in MIMO-OFDM Systems Based on ESPRIT<br><i>Yingtao Niu, Yuehong Shen, Shidong Sun (China Mainland)</i>  | 1972 |
| P.51                         | Study and Design on Automatic Gain Control Circuit for WCDMA Repeater Uplink System<br><i>Zhang Dan, Yuan an Liu, Hai ying Jiang, Shu lan Li, Bi hua Tang (China Mainland)</i>                                | 1976 |
| P.52                         | Analysis of Node Density and Probability of Forming a Network in Military Aeronautical Ad hoc Networks<br><i>congjun shi, qinghua ren, bo zheng, yunjiang liu (China Mainland)</i>                            | 1980 |
| P.53                         | The Application and Study of DCA Based on Measuring CIR in SA System<br><i>zhiqiang Xu, mengcong Tang, mingyue Zhai, QingAn Zeng (China Mainland)</i>   | 1983 |
| P.54                         | Data acquisition and processing technique for software GPS receivers<br><i>lijun wang, xiaoniu yang, huichang zhao (China Mainland)</i>   | 1987 |
| P.55                         | The Modeling and Simulation for GPS/INS Integrated Navigation System<br><i>lijun wang, huichang zhao, xiaoniu yang (China Mainland)</i>   | 1991 |
| P.56                         | Performance of Differential Space-Frequency Modulation under Time-Varying Frequency-Selective Fading Channels   | 1995 |

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|      | <i>Binggang Huang, Zhijie Zhou, WenQiang Zhang, Hao Zhang (China Mainland)</i>  |      |
| P.57 | A Mobility Pattern Adaptive Location Management Algorithm for GEO Mobile Satellite System<br><i>Li SONG, Ai-jun LIU, Yi-fei MA (China Mainland)</i>   | 1999 |
| P.58 | Code Interception Technology for Spectral Phase-Encoded OCDMA system by Using Super-Structured Fiber Bragg Grating (SSFBG)<br><i>Pan Wu, Yang Jing, Qiao Jing, Long Bing (China Mainland)</i>               | 2003 |
| P.59 | Design and Simulation of a Novel Phase-Encoded OCDMA System<br><i>Pan Wu, Qiao Jing, Yang Jing (China Mainland)</i>   | 2006 |
| P.60 | Resource Allocation with Partial Channel Information in Correlated Channels for Multiuser STBC-BF MIMO-OFDM Downlink<br><i>Zhang Chengwen, Liao Minghong, Zhongzhao Zhang, Guo Shizeng (China Mainland)</i> | 2010 |
| P.61 | Performance Simulation and Analysis of Polarized MIMO Systems<br><i>Jue Wang, Jianing Zhao, Xiqi Gao (China Mainland)</i>   | 2014 |
| P.62 | A Cross-Layer Adaptive Resource Allocation Algorithm Based on Impartiality of Wait Time<br><i>hui yi, Zhijie Zhou, Rui Hui, WenQiang Zhang (China Mainland)</i>   | 2018 |
| P.63 | Channel Estimation of MIMO-OFDM System Based on Subspace<br><i>Lei Yu, Shenyuan Yang (China Mainland)</i>   | 2022 |
| P.64 | Analysis on the RF Interference in GSM/CDMA1X Dual-mode Terminals<br><i>Chongyu Wei, yong Li, Wenlin Yang (China Mainland)</i>  | 2026 |
| P.65 | Research of Computer Advanced Programming Algorithm based on OTH Communication Performance Evaluation<br><i>Chong Jing Huang, Jin Wang (China Mainland)</i>   | 2029 |
|      | <b><u>Wide Band Gap Semiconductor Devices</u></b>   |      |
| P.66 | Development of High-Power SiC MESFETs for Microwave Applications<br><i>Song Bai, Peng Wu, Gang Chen, Zhong Feng, Zheyang Li, Chuan Lin, Youquan Jiang, Chen Chen, Kai Shao (China Mainland)</i>             | 2032 |
|      | <b><u>Radar and Broadband Communication Systems</u></b>   |      |
| P.67 | Orthogonal two-channel processing of hybrid coding waveform<br><i>zhang jin dong, Zhong chuan Zhang, Xiao hua Zhu (China Mainland)</i>  | 2036 |
| P.68 | Noise-modulated oppressive jamming for DPC MAB SAR<br><i>Lin Dong, Peiguo Liu (China Mainland)</i>  | 2040 |
| P.69 | Modified Motion Parameter Estimation for Space Object Imaging<br><i>Zhen Fu, Zhiping Yin, Dongchen Zhang, Weidong Chen (China Mainland)</i>   | 2043 |
|      | <b><u>other relevant topics</u></b>   |      |
| P.70 | SVM Target Identification Method Based on HRRP Sample Partition<br><i>Haitao Liang, Chuangming Tong (China Mainland)</i>  | 2047 |
| P.71 | Loaded Frequency Selective Surfaces Using Substrate Integrated Waveguide Technology<br><i>Rongrong Xu, Huai Cheng Zhao, Zhi Yuan Zong, Wen Wu (China Mainland)</i>  | 2051 |
| P.72 | Study on Entropy Function Optimization Problem in Auto-focusing Algorithm Applied for Radar Imaging<br><i>Xiaohui Qiu, Yang Zhao (China Mainland)</i>   | 2055 |
| P.73 | Visualization of 3D Spatial Data Sets Applied in Radar Imaging<br><i>Gao Ying, Fei Yi, Zheng Tao, Peng Yu Xin (China Mainland)</i>  | 2059 |
| P.74 | The Basic Study of Nonlinear Scattering Functions<br><i>GuoQuan Sun (China Mainland)</i>  | 2063 |
| P.75 | Study on Microwave Attenuation Performance of MgO-Mg <sub>2</sub> SiO <sub>4</sub> Lossy Ceramics<br><i>Xiaoyun Li, Yong Fang, Tai Qiu (China Mainland)</i>   | 2066 |

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| P.76 | Microwave Characteristics and Thermal Conductivity of Aluminium Nitride-Molybdenum Lossy Ceramics<br><i>Yuhan Gao, Xiaoyun Li, Tai Qiu, Jian Yang (China Mainland)</i>        | 2069 |
| P.77 | An Overlapped Subaperture Polar Format Algorithm Based on Sub-chirp Signals<br><i>Xinhua Mao, Daiyin Zhu, Zhaoda Zhu (China Mainland)</i>                                     | 2073 |
| P.78 | DirectShow Based Internet Video on Demand System<br><i>Fan Zhang, Bo Li (China Mainland)</i>  | 2077 |
| P.79 | Research on Identification the Counterfeit by Recognizing the Infrared Images<br><i>chengxiang liu, shuangchen ruan, guiming huang, yaobo jian, li zhang (China Mainland)</i> | 2081 |