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Nanjing, Jiangsu, China 8 – 10 October 2012



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Monday, 8th October

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Chairperson: Raj Mittra
Inside the Wavelength - seeing really small objects with light Keynote AND BUE
Metamaterial-enhanced magnetic responses and their applications Keynote Marter Sailing He, Zhejiang University, Hangzhou, China
Coffee break
Chairperson: John B. Pendry
Electron induced near field optical microscopy: lighting up tightly confined ÁÞ DE plasmon modes ^{Keynote}
Nicholas X. Fang, Massachusetts Institute of Technology, USA One way propagation manipulation by complex photonic crystals Keynote And BUE Yanfeng Chen, Nanjing University, China
Lunch
Chairperson: Nicholas X. Fang
Active metamaterials based on negative impedance converters Keynote A
Yang Hao, Queen Mary College, University of London, UK Plasmonic Wave Holography for Wave-Front Shaping of Light Keynote ÁÁAÞ ĐŒ
Yu-Hui Chen, Lu Huang, Lin Gan, and Zhi-Yuan Li, Chinese Academy of Sciences, China
Transformation bending device emulated by graded-index waveguide ^{Invited} ##PEDE Hui Liu, Nanjing University, China
Coffee Break
Chairperson: Yang Hao

17:20-18:10 Double-negative acoustic metamaterials composed of meta-molecule Keynote ... B#5

Xiaopeng Zhao, Northwestern Polytechnical University, China

18:10-19:00

Chairperson: Xiaopeng Zhao

Tuesday, 9th October

08:30-10:10	Chairperson: Jensen Li	
08:30-09:20 09:20-10:10	Wideband and low-loss metamaterial antennas and arrays ^{Keynote} APDE Le-Wei Li, University of Electronic Science & Technology of China, China Gradient-index metamaterials to control electromagnetic waves: From APDE microwaves to visible ^{Keynote} Lei Zhou, Fudan University, China	
10:30-12:10	Chairperson: Cheng-Wei Qiu	
10.00 12.10		
10:30-11:20	Non-Euclidean transformation optics Keynote AND EDE	
11:20-12:10	Laser precision engineering for large area metamaterials fabrication KeynoteÁ Minghui Hong, National University of Singapore, Singapore	N/A
12:10-14:00	Lunch	
14:00-16:10	Chairperson: Zi-Ting Chan	
14:00-14:50 14:50-15:40	Meta-materials-based antennas ^{Keynote} N/A Zhi Ning Chen, <i>National University of Singapore, Singapore</i> Controlling electromagnetic wave propagation with polarization dependent	ΦE
15:40-16:10	planar metamaterials ^{Keynote} Yijun Feng, <i>Nanjing University, China</i> Large scale cylindrical cloak in free space: from narrow band to broadband APR Invited	ØE
	Hongsheng Chen, Zheijang University, China	
16:10-16:30	Coffee Break	
<mark>16:30-18:10</mark>	Chairperson: Ulf Leonchardt	
16:30-17:20	Making structured metals transparency for broadband electromagnetic AMP EDE waves Keynote	
17:20-18:10	Ru-wen Peng, Nanjing University, China Win some and lose some: A competition between metamaterials and Ap non-metamaterials Keynote	ъĐЕ

Cheng-Wei Qiu, National University of Singapore, Singapore

18:10-19:00

Chairperson: Yijun Feng

Wednesday, 10th October

08:30-10:10	Chairperson: Le-Wei Li
08:30-09:20	Designing nanoantennas: Is it just a matter of scaling down their AMD EDE microwave counterparts? Keynote
09:20-10:10	Raj Mittra, Penn State University, USA Optical force and stress Keynote AMD EDE Zi-Ting Chan, Hong Kong University of Science and Technology, China
10:10-10:30	Coffee break
10:30-12:10	Chairperson: Lei Zhou
10:30-11:20	From electrically small zero-scattering particles to thin matched ##PEDE absorbers Keynote
	absolutions

12:10-14:00 Lunch

14:00-16:10	Chairperson: Zhi-Ning Chen
14:00-14:50	Tunable metamaterial absorber and thermal emitter Keynote APP EDE
	Willie J. Padilla, Xianliang Liu, Boston College, USA
14:50-15:20	Anisotropic dc unit cells in the cylindrical coordinate system: a comparison A
	Zhong Lei Mei, Lanzhou University, China
15:20-15:50	Application of anisotropic zero index metamaterials in microwave ADE engineering Invited
	Qiang Cheng, Southeast University, China
15:50-16:10	Coffee break

16:10-17:50 Chairperson: Zhi-Yuan Li 16:10-16:40 Deep subwavelength electromagnetic transparence through dual metallic A gratings with ultranarrow slits ^{Invited} Chunyin Qiu, Wuhan University, China 16:40-17:10 Flux control in inhomogeneous anisotropic epsilon-near-zero A metamaterials ^{Invited} Yun Lai, Soochow University, China 17:10-17:50 Planar and conformal surface plasmons on ultrathin corrugated strips A por E Keynote Tie Jun Cui, Southeast University, China

Poster Sessions

Poster Session 1 Chairperson: Xiaopeng Zhao, 18:10-19:00, Monday, 8th October

P1.1	Optical trapping using double negative index fishnet metamaterial AMA T. Cao ¹ , M. J. Cryan ² , 1. Dalian University of Technology, China; 2. University of Bristol, UK
P1.2	Determination of the effective constitutive parameters of active transmission AMAFF line metamaterials Li-Ming Si ¹ , Weiren Zhu ² , Xin Lv ¹ , 1. Beijing Institute of Technology, China; 2. Monash University, Clayton, Australia
P1.3	Double negative behavior of a circular waveguide with metamaterials AMA I Xin Guo, Jinhua Cao, and Zhaoyun Duan, University of Electronic Science and Technology of China, China
P1.4	A novel approach to further decrease the thickness of ultrathin perfect AMARTI metamaterial absorbers Li Huang, et al. Harbin Institute of Technology, China
P1.5	Gradient magnifier lens with homogeneous isotropic dielectrics for AMAGE subwavelength super-imaging Tiancheng Han ¹ , Cheng-Wei Qiu ² , 1. University of Electronic Science and Technology of China, China; 2. National University of Singapore, Singapore
P1.6	Photothermal direct writing of metallic microstructure for frequency selective AMCH surface at terahertz frequencies Xi Chen ¹ , Yiting Chen ¹ , Min Yan ¹ , Min Qiu ¹ , Tie Jun Cui ² , <i>1. KTH Royal Institute</i> of Technology Kista, Sweden; 2. Southeast University Nanjing, China
P1.7	 FSS design research for improving the wide-band stealth performance of radar AMG absorbing materials Wang Ming-liang, Zhang Sheng-jun, Liu Jia-qi, Liang Wei, Liu Xue-mei, W. Liang. X, National Key Laboratory of Science and Technology on Test Physics & Numerical Mathematical Beijing 100076, China
P1.8	Anisotropic dc unit cells in the cylindrical coordinate system: a comparison AMMH€ between accurate and approximate models Xiang Ma ¹ , Zhong Lei Mei ¹ , Fan Yang ¹ , Tie Jun Cui ² , <i>1. Lanzhou University,</i> <i>Lanzhou, China; 2. Southeast University, China</i>
P1.9	Coupling effect in planar metamaterials

Ran Liu, Bo Na, Jinhui Shi, Zhengping Wang, Harbin Engineering University,

China

- P1.10 Multi-peak transmissions in concentric ring metamaterials mimicking AMALI electromagnetically induced transparency
 Shengwu Yu, Chunying Guan, Jinhui Shi, Zhengping Wang, Harbin Engineering University, China
- P1.11 A transparent polarization transformer based on a bilayered metamaterial AMA F Xingchen Liu, Ran Liu, Zheng Zhu, Jinhui Shi, Zhengping Wang, Harbin Engineering University, China
- P1.12 Analysis and design of the pyramidal horn antennas for terahertz applications AMA I Lin Guo, Fengyi Huang, Xusheng Tang, Southeast University, China
- P1.13 Bandwidth enhanced metamaterial absorber at terahertz frequency AMA Ì Huan Zhang, Yijun Feng, Nanjing University, Nanjing, 210093 China
- P1.14 Designing planar electromagnetic wave reflectors through transformation optics AMMA G Shuai Xiong, Yijun Feng, Tian Jiang, Junming Zhao, Nanjing University, Nanjing, 210093 China
- P1.15 Design of near-zero refractive index metamaterials using and near-zero media AMA I
 C. Soemphol, N. Wongkasem, Khon Kaen University, Thailand
- P1.16 Three-dimensional aluminum nano funnel-antenna for enhanced absorption of A J near-ultraviolet light by TiO2
 Xiao-Lan Zhong, Zhi-Yuan Li, Chinese Academy of Sciences, China
- P1.17 Fluorescence enhancement assisted by the double plasmonic modes of gold AWA F nanorods

Si-Yun Liu, Jia-Fang Li, Lu Huang, Zhi-Yuan Li, Chinese Academy of Sciences, China

P1.18 One-way tamm plasmon-polaritons at a magnetophotonic crystals/Metal AMA H interface

Hui Yuan Dong, Jin Wang, Tie Jun Cui, Southeast University, China

- P1.19 Large scale cylindrical cloak in free space without superluminal propagation AMA Î Hongsheng Chen, *et* al. *Zhejiang University, China*
- P1.20 A microwave wideband hyperlens based on metamaterials closed-rings A in the second seco
- P1.21 Effects of discharge types on plasma collisional absorption of electromagnetic AWWA H waves

Runhui Wu, Shengjun Zhang, Jiaqi Liu, Aimin Ren, Gang Meng, Wei Liang, Xuemei Liu, NationalKey Laboratory of Science and Technology on test physics & numerical mathematical, Beijing, China

Poster Session 2 Chairperson: Yijun Feng, 18:10-19:00, Tuesday, 9th October

P2.1	Design and simulation of multi-functional layer double negative fishnet AMA i metamaterial at optical communication wavelength Hossein Seifoory Ali Golestani, Parissa Tabatabaei, University of Tabriz, Iran
P2.2	A design of multi-band stealth compatibility with the application of fusion type A
	Xiaodi Weng, Xuliang Lv, Baicao Pan, Zhaoyang Zeng, Liuqiang Wen, PLA University of Science and Technology, China
P2.3	Optical trapping of metallic nanoparticles using two types of vector beams/### Í Lu Huang, Honglian Guo and Zhi-yuan Li, Chinese Academy of Sciences, China
P2.4	Derivation of an effective model for plasmonic coupling AAA i Bin Xi, Meng Qiu, Shiyi Xiao, Hao Xu, and Lei Zhou, Fudan University, China
P2.5	A hyperlens realized by a plasmonic metamaterial AWW € Qiong He, Shiyi Xiao, Xin Li, and Lei Zhou <i>, Fudan University, China</i>
P2.6	Second-harmonic generations in fishet metamaterials AMD G Shiwei Tang, et al. Fudan University, China
P2.7	A new mechanism to design transparent electrodes: THz realizations
	Zhengyong Song, et al. Fudan University, China
P2.8	Making transparent metals based on scattering cancellations AM I Zhengyong Song, Qiong He, Shiyi Xiao, and Lei Zhou, Fudan University, China
P2.9	A theoretical study on graphene-based metamaterials ∰∰F€€ Kun Ding, Yuan Shen, Jack Ng and Lei Zhou, <i>Fudan University, China</i>
P2.10	Reflectionless ultra-thin microwave wave-plate based on metamaterials ∰F€G Wujiong Sun, Qiong He, Jiaming Hao, Lei Zhou, Fudan University, China
P2.11	A flat metamaterial lens working in reflection geometry ∰F€I Xin Li ¹ , Shiyi Xiao ¹ , Bengeng Cai ² , Qiong He ¹ , Tie Jun Cui ² , Lei Zhou ¹ , 1. Fudan University, China; 2. Southeast University, China
P2.12	Tunable metamaterials based on ferrites and the applications AMF€Î Yongjun Huang ¹ , Guangjun Wen ¹ , Weiren Zhu ² , 1. University of Electronic Science and Technology of China, 2. Monash University, Australia
P2.13	Applying effective medium theory in characterizing dielectric constant of solids AMAFF€

Sucheng Li, et al. Soochow University, China

P2.14	The role of single loading dielectric layer on properties of frequency selective
	S. J. Zhang ¹ , J. Q. Liu ¹ , M. L. Wang ¹ , W. M. Ms ¹ , W. Liang ¹ , X. M. Liu, X. C. Hou ² , <i>1. National Key Laboratory of Science and Technology on Test Physics & Numerical Mathematics, China; 2.</i> Aerospace Science & Industry Defense Technology R&T Center, China
P2.15	An sccurate 2-D nonuniform fast fourier transform method applied to high AMFFI resolution SAR image reconstruction K. Han, et al. Equipment Research Institute of Air Force, China
P2.16	 Rapid analysis of metamaterial structures using the discrete Maxwell's equation AMFGF method Q. F. Guo, Y. Q. Ma, X. L. Cui, Y. Liu, Equipment Research Institute of Air Force, China
P2.17	Dynamic echo simulation of precession target based on electromagnetic AMAFG scattering model W. F. Sun, H. Y. Yao, X. Y. Ma, X. X. Li, <i>Air Force Early Warning Academy,</i> <i>China</i>
P2.18	ISAR imaging of complex targets based on electromagnetic scattering field MMFH€ H. Y. Yao, X. Y. Zhou, W. F. Sun, X. Y. Ma, <i>Air Force Early Warning Academy,</i> <i>China</i>
P2.19	A broadband bandpass rectangular waveguide filter based on metamaterials A
P2.20	TE-polarized microwave broadband carpet cloak/₩₩FHÌ Su Xu, Runren Zhang, Hongsheng Chen, Zhejiang University, China
P2.21	Polarization-insensitive metamaterial absorber based on carbon fiber cut-wire AMAFI F arrays Yongqiang Pang, Haifeng Cheng, Yongjiang Zhou, National University of Defense Technology, China
P2.22	A novel helical metamaterial absorber: Simulation study with the FDTD method
	ZhenYu Yang, ZeQin Lu, Lin Wu, Peng Zhang, and Ming Zhao, Huazhong University of Science and Technology, China
P2.23	Preparation of a gradient wettability surface based on organic-inorganic hybrid AMFI Î coating Liang Zhou ¹ , Ziheng Huang ² , Yuhong Tao ² , Jiang Cheng ² , <i>1. Guangdong Industry Technical College, China, 2. South China University of Technology, China</i>