<table>
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<th>Chaired By</th>
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<tr>
<td>14:00-18:00</td>
<td>(Room S) MP1S Best Student Papers Contest</td>
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<tr>
<td>14:00-15:30</td>
<td>(Room S) MP1S Best Student Papers Contest</td>
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<tr>
<td>18:30-20:30</td>
<td>Welcome Reception</td>
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<tr>
<td>08:30-08:30</td>
<td>Registration</td>
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<tr>
<td>08:30-09:15</td>
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<tr>
<td>10:00-12:00</td>
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<tr>
<td>13:30-15:20</td>
<td>TP1A (Special Session) Challenges on Wireless Performance Testing for 5G/mmWave/Beamforming/WiFi/Massive MIMO/Driverless Car</td>
<td>Room A</td>
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<td>13:30-17:50</td>
<td>(Room I) TP1I Special Session: EM and antennas education and research: session in honor of Prof. Wen-Xun Zhang on his 80th birthday</td>
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<td>(Room P) Poster Session: TP-C (Best Student Papers Contest) &amp; TP-P &amp; Coffee Break</td>
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<tr>
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<td>08:00-09:50</td>
<td>WA1A (Special Session) New Small Antennas for Next-Generation Terminals</td>
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<td>WA2A (Special Session) Novel Antenna and 3-D Printed Design for Practical Applications</td>
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<tr>
<td>13:30-15:20</td>
<td>WP1A (Special Session) Miniaturization and De-coupling Techniques for Base Station Antennas</td>
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<tr>
<td>15:10-16:00</td>
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<tr>
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<tr>
<td>18:30-20:30</td>
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<tr>
<td>08:00-09:50</td>
<td>TA1A (Special Session) Current Trends and Advances in Computational Inverse Scattering - Theory, Techniques, and Applications</td>
<td>Room I</td>
<td></td>
</tr>
<tr>
<td>09:40-10:30</td>
<td>(Room P) Poster Session: TA-P &amp; Coffee Break</td>
<td></td>
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</tr>
<tr>
<td>10:00-12:10</td>
<td>TA2A (Special Session) Current Trends and Advances in Computational Inverse Scattering - Theory, Techniques, and Applications</td>
<td>Room J</td>
<td></td>
</tr>
<tr>
<td>12:10-13:30</td>
<td>Lunch</td>
<td></td>
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<tr>
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<td>TP1A (Special Session) New Generation Antenna Array Synthesis: Methods, Algorithms, Architectures, and Applications</td>
<td>Room K</td>
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<tr>
<td>15:20-15:50</td>
<td>Coffee Break</td>
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<tr>
<td>15:50-17:40</td>
<td>TP2A (Special Session) New Generation Antenna Array Synthesis: Methods, Algorithms, Architectures, and Applications</td>
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</tbody>
</table>
APCAP2017 Sponsorships

**Sponsored by:**
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National University of Singapore

**Technically Co-sponsored by:**
IEEE AP-S
Chinese Institute of Electronics (CIE)
IEEE Joint Nanjing Chapter

**Co-sponsored by:**
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Collaborative Innovation Center of Information Sensing and Understanding
National Key Laboratory of Science and Technology on Space Microwave
General Test Systems Inc.
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Greetings from APEM Week Co-General Chairs

Welcome to Xi’an – one of the four major ancient civilization capitals that enjoys equal fame with Athens, Cairo, and Rome. It is our great pleasure to welcome you to 2017 Asia-Pacific Electromagnetic Week (APEMW2017) to be held at Shaanxi Guesthouse on 16-19 October, 2017, is comprised of 2017 National Conference on Antennas (NCANT2017), 2017 Asia-Pacific Conference on Antennas and Propagation (APCAP2017) and 2017 Conference on Electromagnetic Compatibility (AP-EMC’2017).

Based on the invaluable commitment of 172 reviewers, the members of the technical committee constituted an excellent program comprising more than 1232 presentations. The regular program which is organized in 129 oral sessions and 8 poster sessions, is complemented by 13 special sessions and 136 invited talks covering most relevant topics. This includes the contribution to focus sessions devoted to antennas, propagation as well as electromagnetic compatibility, and to the latest developments in academia and industry. At the opening ceremony, internationally renowned speakers will discuss latest trends in their keynotes at the conference. Rongqiao Zhang, General Designer of Chinese first Mars exploration will address the conference on sum and prospect of deep space exploration. Prof. W.C.Chew from Purdue University, West Lafayette, IN, USA will address Deep Multiscale, Characteristic Mode, Computational Imaging, and Quantum Effects Problems in several frontiers James Drewniak from Missouri University of S&T, USA will highlight several trends in EMI research with examples in the fields of above 10 GHz emissions, intra-system EMI, radio-frequency interference, noise source identification and modeling, mitigation techniques with new materials, tools, and design methodologies.

Hopefully, the program will let you enjoy APEMW2017 in Xi’an and will give you plenty of opportunities to satisfy your professional curiosity, thus making 2017 a truly PRIME Year in your calendar. Yet, don’t forget to explore Xi’an with its rich cultural past and also its more recent landmarks reminding us where the city’s historical events that shook us.

APEM Week Co-General Chair
Prof. Wei Hong
Southeast Univ.

APEM Week Co-General Chair
Prof. Baoyan Duan
Xidian Univ.

APEM Week Co-General Chair
Prof. Dongwei Li
39th Inst.
Greetings from APCAP2017 Chairs

Welcome to 2017 Asia-Pacific Conference on Antennas and Propagation (APCAP2017), which has been successfully inaugurated in Singapore in 2012 and held in Chiangmai, Thailand in 2013 and Harbin in 2014 and Bali, Indonesia in 2015 and Kaohsiung in 2016. APCAP 2017 will offer a rich scientific program of the highest quality with keynote and invited speakers from all over the world and provide a broad forum of exchange for both academia and industry with the aim of fostering collaboration between them.

This year we have received over 762 papers from 18 countries/regions, not only from Asia-Pacific countries but also from America, Europe and Africa. We cordially welcome you to APCAP2017. Besides, we would like to take this opportunity to express our sincere appreciation to the leading scientists, session organizers and all contributors for their great help and valuable supports to APCAP2017. Many thanks also to the Technical Program Committee, the Organizing Committee and the International Steering Committee as well as the sponsors and the technical sponsors for their efforts to bring all the participants an excellent technical program and an opportunity to spend a pleasant time at the conference.

The antennas and propagation technology, as one of the most brilliant achievements of mankind in the last century, has become more and more important in human life. The application of antennas and propagation technology has benefited mankind in many ways. APCAP2017 will provide a broader forum for worldwide scientists and engineers of varied backgrounds to exchange information and share research results to discuss collaborations in the fields of antennas and propagation. The conference is also a platform for the new faces to become known and for the previous attendees to refresh their friendships.

With the inclusion of the conference proceedings to the IEEE Xplore Data Base, the Open Access Journal EPJ Applied Metamaterials (EPJ AM) will publish Special Issue of the EPJ AM Journal on APCAP2017 titled “Metamaterial Applications to Antenna Engineering”. The presentations of this conference will be accessible to a wider range of readers and will have continual impact to this research field.

Xi’an is one of the most famous ancient capitals of China. It is also one of the most important sightseeing cities in China with its many historic spots and beautiful scenery. We hope all of attendees an enjoyable and memorable stay in Xi’an, China.

APCAP General Chair
Prof. Chen Zhi Ning
National University of Singapore

APCAP General Chair
Prof. Yongchang Jiao
Xidian University

APCAP General Chair
Prof. Jiaqi Liu
TP&NM Lab
Message from the Technical Program Chairs

On behalf of the Technical Program Committee (TPC), we welcome all of you to attend the 2017 Asia-Pacific Conference on Antennas and Propagation (APCAP2017) in Xi’an, one of the most ancient cities in China.

Along with 104 members, APCAP2017 TPC has worked together and generated a diverse and well-organized technical program. A high number of 762 papers were submitted to APCAP2017, where 667 papers were from mainland China, and 95 papers were from overseas distributed in 18 countries and regions. All submitted papers were reviewed by members of the TPC and on their recommendations a total number of 722 papers were accepted for presentation at APCAP2017. We have arranged 81 oral sessions and 4 poster sessions from Tuesday to Thursday to present the papers.

In this large event on antennas and propagation in the Asia-Pacific area, we have invited 3 (very top) keynote speakers to describe the latest technological developments, we have also invited 86 speakers and organized 12 special sessions to report on current related technologies. The invited talks are distributed from Tuesday to Thursday. Besides the regular papers, a high number of 177 student papers were received to take part in Best Student Paper Contest. After peer review by the TPC members, 18 papers were shortlisted to the final competition for Best Student Paper Awards.

This year, all submission, paper review and evaluation and paper acceptance process are on-line based. We are indeed proud of the excellent work done by staff of Xidian University, National University of Singapore and Southeast University. On behalf of the TPC, we would like to express our sincere thanks to all authors for their contributions to the conference. We would like to express our sincere appreciation to all TPC members, sesson organizers, session chairs, reviewers, and all who have been involved for their effort and dedication in finalizing this technical program.

We wish you an enjoyable and interesting APCAP 2017 in Xi’an, China.

Prof. Long Li
APCAP TPC Chair
Xidian Univ.

Prof. Hou Zhang
APCAP TPC Chair
AFEU

Prof. Zhangcheng Hao
APCAP TPC Chair
Southeast Univ.

Prof. Chenjiang Guo
APCAP TPC Chair
NPU
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Baoyan Duan (Xidian University)
Dongwei Li (39th Inst.)

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Yongchang Jiao (Xidian University)
Jiaqi Liu (TP&NM Lab)

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Xin Liu (TP&NM Lab)

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Cunxiang Wang (39th Inst.)

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Feng Shang (Xi’an University of Posts & Telecommunications)
Xiaoli Xi (Xi’an University of Technology)
Chunbang Wu (504th Inst.)
Secretaries

Zhe Song (Southeast University)
Zhiya Zhang (Xidian University)

Webmasters

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Yao Lu (Maitekang Ltd)
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Hisamatsu Nakano (Hosei University)

Chi Hou Chan (City University of Hong Kong)

Steven Gao (University of Kent)

Ville Viikari (Aalto University)

Xiao-Wei Zhu (Southeast University)
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Andree Massa (ELEDIA Research Center)
Anil Kumar Pandey (Keysight Technologies)
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Anxue Zhang (Xi’an Jiaotong University)
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Tian Hong LOH (National Physical Laboratory, UK)
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Xiaojie Dang (Xidian University)
Xiao-Wei Zhu (Southeast University)
Xiaoping Yin (Southeast University)
Xiuping Li (Beijing University of Posts and Telecommunications)
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Xueguan Liu (Soochow University)
Xue-Song Yang (University of Electronic Science and Technology of China)
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Yan Zhang (Southeast University)
Yanhui Liu (Xiamen University)
Yijun Feng (Nanjing University)
Ying Liu (Xidian University)
Ying-Ran He (National University of Singapore)
Yingzheng Yin (Xidian University)
Yongchang Jiao (Xidian University)
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Zongxin Wang (Southeast University)
Zuping Qian (PLA University of Science and Technology)
Conference Site and Office Location

2017 Asia-Pacific Conference on Antennas and Propagation (APCAP2017) will be held on 16th – 19th October at Shaanxi Guesthouse, Xi’an, China. The office and session locations are shown in the back cover of this program.

Registration

The APCAP 2017 Registration begins from 14:00-18:00, October 16, 2017. The registration desk is at the conference venue Shaanxi Guesthouse. The on-site registration fee is shown in the following table. The on-site student registration requires a valid student ID. If you have pre-registered, your name badge and Technical Program will be ready for you to pick up at the registration desk during the conference. Please wear your name badge throughout the conference. Access will be prohibited to the exhibition, tea break, interactive areas, and technical sessions if a name badge is not visible.

<table>
<thead>
<tr>
<th>On-site Registration Fee</th>
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<tr>
<td>Student/Retired</td>
<td>2800 CNY (400 USD)</td>
</tr>
<tr>
<td>CIE/IEEE members</td>
<td>3800 CNY (550 USD)</td>
</tr>
<tr>
<td>Regular</td>
<td>4500 CNY (650 USD)</td>
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</tbody>
</table>

Projection Facilities

Standard LCD projector (connected to a local PC) will be provided in each conference room.

Guidelines for Presentations

INFORMATION FOR CANDIDATES OF BEST STUDENT PAPERS CONTEST

The Best Student Paper Contest is an Oral Session scheduled during 2:00-5:30 pm, October 16, 2017, namely the afternoon before Opening Ceremony. Candidates are required to present their work in 5 minutes with a 5-minute Q&A. The awards committee will select the final winners according to the paper quality and the author’s presentation. No show means the authors withdraw their paper from the contest.

Note: Best student paper candidates are also required to demonstrate their posters during 15:10 – 16:00 pm, October 17, 2017.

INFORMATION FOR ORAL PRESENTERS

Presenters are required to report at their session room to their session chair at least 15 minutes prior to the beginning of their session. Presenters are suggested to try out their presentations if there is any concern about the format, presentation length, etc. It is mandatory that the presentations should be loaded to the computer supplied by conference ahead of the beginning of each session. Any delays in the start of a presentation behind schedule due to the presenter’s disregard of this guidance will result in less presentation time for that paper. All regular presentations are limited to 20 minutes (invited presentations will have 30 minutes). The strict limits are 15 minutes for formal presentations and 5 minutes for questions and discussions. To accommodate attendees who move between sessions, it is important to carry out every presentation on schedule. The Session Chair will remind the presenter 10 minutes after the presentation starts. The session room will be equipped with a computer and an LCD projector. This is the only permissible projection system. Presenter MUST use the session’s
computers for their presentation, i.e., their presentation must be loaded in advance on this computer. Each computer is equipped with a CD-ROM drive and a USB port to read CDs and USB flash memory, respectively. The operating system for session computers is Microsoft Windows 7 (or newer). The software available on each machines are Adobe Acrobat Reader (for PDF), MathType and Microsoft Office (Version: Office 2013) with Word, Excel and PowerPoint available. Therefore, all presenters must be compatible with these packages. There will be also assistance and advice available to presenters at registration desk. Please remember that due to the very large number of papers and a tight schedule, the responsibility of having your paper ready for presentation at the scheduled time is very important. All oral papers must be presented in person at the conference in order to be included in the proceedings published in IEEE Xplore®.

INFORMATION FOR POSTER PRESENTATIONS

Presenters are required to put up their papers 15 minutes prior to the beginning of their session. Each poster presentation will last about 50 minutes. During this time, the presenter must stand by the display board to answer questions and discuss about the contents of the poster informally. The poster display should include a statement of the topic, objectives of the research or project, the methodology used to solve the problem or implement the program, the major findings or outcomes and their significance and conclusions. There should be a logical sequence --- introduction, development and conclusion--- of your display. Each sheet should be numbered, a heading should be prepared for your presentation using lettering at least 3cm high. The heading should include the title of the poster, all author names and institutional affiliations.

One poster board is provided for each presentation, which is 1.2 meter high by 0.9 meter wide. The background color of the board is usually beige or white. Pins or tapes are provided by conference committee to mount your posters on the boards. All materials to be displayed should be prepared before your arrival. Supplies will not be available at the conference site. All poster papers must be presented in person at the conference in order to be included in the proceedings published in IEEE Xplore®.
General Information

CONFERENCE VENUE

Shaanxi Guesthouse
Address: No.1 Zhangbabei Road, Xi’an, Shaanxi
http://www.zhangbagou.com

TRANSPORTATION

From Xi’an Xianyang International Airport to Conference Venue (Shaanxi Guesthouse):
The distance between Xi’an Xianyang International Airport and Shaanxi Guesthouse is about 38.2 kilometers. You are suggested to take a taxi, the fare is 110~130 CNY for one way. If you prefer public transportation, please take airport shuttle bus to take off at Zhuhonglu station, then transfer to bus No.261 to take off at Provincial Swimming Center, then walk for about 1500 metres to the conference venue.

From Xi’an Railway Station to Conference Venue (Shaanxi Guesthouse):
The distance between Xi’an Railway Station and Shaanxi Guesthouse is about 15.7 kilometers. You are suggested to take a taxi, the fare is 40~50 CNY for one way. If you prefer public transportation, please take bus No.206 to Guanghualu Station, then transfer to bus No.608 to take off at Chazhangcun Station, then walk for about 1000 metres to the conference venue.

From Xi’an North Railway Station to Conference Venue (Shaanxi Guesthouse)
The distance between Xi’an North Railway Station and Shaanxi Guesthouse is about 26 kilometers. You are suggested to take a taxi, the fare is 70~80 CNY for one way. If you prefer public transportation, please take metro Line 2 to take off at Xiaozhai Station, then transfer to metro Line 3 to take off at Zhangbabeiul Station, then transfer to metro Hign-Tech Line 2 to take off at Chazhangcun station, walk for about 1000 metres to the conference venue.
ABOUT XI'AN

Xi’an is the capital of Shaanxi Province. Xi'an was once called "Chang'an" in the Han Dynasty. The connotation of this name is "permanent peace". Xi’an was regarded as one of the "Four Ancient Civilizations of the World", the other three being Rome, Athens, and Istanbul.

Tour Options

Terra-cotta Warriors and Horses Museum Terracotta warriors and horses is the only imperial tombs from the mass grave, located on the eastern side of Qin Shi Huang Mausoleum of about 1 kilometer and a half, was found in 1974, is one of the most important archaeological discoveries, this 16,300-square-meter excavation reveals more than 7,000 life-size terracotta figures of warriors and horses arranged in battle formations. (3 pits) The terracotta warriors and horses, created about 2,200 years ago, were found in 1974 on the east side of the tomb of the First Emperor Qin Shihuang (259 BC - 210 BC) near Xi'an.

Big Wild Goose Pagoda As the symbol of the old-line Xian, Big Wild Goose Pagoda is a well-preserved ancient building and a holy place for Buddhists. It is located in the southern suburb of Xian City, about 4 kilometers (2.49 miles) from the downtown of the city. Standing in the Da Ci'en Temple complex, it attracts numerous visitors for its fame in the Buddhist religion, its simple but appealing style of construction, and its new square in front of the temple. It is rated as a National Key Cultural Relic Preserve as well as an AAAA Tourist Attraction.
LANGUAGE

The official language for the Conference is English. However, in the public society, Chinese Mandarin is commonly spoken in Xi’an.

VISA

Each person from abroad, who wants to enter the Chinese Customs, needs to hold a visa issued by Chinese Embassy or Consulate. It should be submitted to the Chinese Embassy in your country for you to apply for the visa. You can also apply for a visa type of common tourist, which is convenient to be issued without the requisition form and valid for 30 days.

CURRENCY AND CREDIT CARDS

China’s currency is RMB with its monetary unit RMB Yuan. The exchange rate is about 1 USD FOR 6.59 RMB. ONLY RMB cash is acceptable on the registration desk on the conference site.

TAX AND TIP

All the shopping is free of tax. Be sure to make big bargaining when buy merchandise from the Street Market. Tipping is by no means a traditional Chinese custom. Please help keep the good customs and do not tip a waiter/waitress or a taxi driver and other person who provides regular services.

OPENING HOURS

Bank and Post Office Opening hours: 9:00 a.m. to 5:00 p.m., from Monday to Sunday.
Government Office Opening hours: 8:30 a.m. to 5:00 p.m., from Monday to Friday.
Store Opening hours: 9:00 a.m. to 8:00 p.m., but the large shopping center serves till 10:00 p.m., from Monday to Sunday.

ELECTRICITY

In China, the standard outlets provide AC of 220 V/50 Hz.

TAXI

Usually, a taxi is available along the roadsides, while you wave for it. However, at main streets it is only available at taxi stops or in front of a hotel.

INTERNET ACCESS

There are WLAN with internet access in the conference venue.
APCAP2017 Online

Information on APCAP2017 has been posted on the World Wide Web at:
http://www.em-conf.com/apcap2017
Keynote Presentations

Oct. 17 (TUE), Room O

10:00 – 10:40

深空探测发展展望与思考
张荣桥
中国首次火星探测工程总设计师，深空探测论证总设计师

Abstract of the talk
简要介绍中国深空探测的发展目标、遵循原则、能力基础、实施路线、任务安排和重点关注的科学问题，重点阐述中国开展深空探测需要克服的工程和技术难题，以及对中国深空探测任务设计和工程技术发展的观点。

Biography of the speaker
张荣桥：曾任我国月球探测工程副总设计师；现任我国首次火星探测工程总设计师、深空探测论证总设计师。
Abstract of the talk
Maxwell’s equations have been around for over 150 years since its inception. But due to their enduring legacy, their importance has not diminished over the years. In fact, electromagnetic theory finds applications in increasing number of areas and relationship to deeper mathematics. For instance, electromagnetics is important for quantum information, quantum optics, and increasingly being used in photonic and bio technologies. In this talk, we will report our progress in several frontiers related to electromagnetics.

1. Deeply multi-scale analysis of complex structures

   Deeply multi-scale problems are omnipresent where the smallest features can be many orders of magnitude smaller than the largest features.

2. Physics-based characteristic mode analysis

   Because of the popular use of commercial software to solve problems, many antenna designers arrive at designs without much physical guidance nor insight. Hence, ways to enhance physical insight and understanding of wave physics and electromagnetics are needed. Hence, analysis such as characteristic mode analysis could be of greater importance in future designs and applications. They will make the antenna analysis more physics based rather than by trial and error.

3. Computational imaging

   The leaps and bounds progress in computer technology warrants one to look at the inverse scattering and imaging problem differently. With 10 million times improvement in speed and reduction in cost, different computational paradigms need to be explored. This can occur in multiple scattering imaging where the prowess of modern computer technology can be harnessed to improving imaging technology, just as what machine learning has done.

4. Quantum effects in future technologies

   As device dimensions become smaller, operating electromagnetic frequencies become higher, and measurement sensitivities improve, the quantization of electromagnetic field becomes increasingly important. This ushers in the age of quantum technologies.
Biography of the speaker

Weng Cho Chew received all his degrees from MIT, between 1973-1980. He worked at Schlumberger-Doll Research between 1981-1985 where he was program leader and department manager, and then joined U of Illinois. He was Dean of Engineering, Hong Kong U, 2007-2011. Before, he was Director, Electromagnetics Laboratory, UIUC, 1995-2007, Founder Professor of Engineering, 2000-2005, YT Lo Chair Professor, 2005-2009, then Distinguished Professor, 2013-2017. He has published over 1,000 journal and conference papers, an ISI highly cited author, a fellow of IEEE, OSA, IOP, EM Academy, HKIE, and winner of IEEE Grad Teaching Award, Electromagnetics Award, CT Tai Distinguished Educator Award, best paper awards, IBM, and ACES CEM awards. He is Editor-in-Chief of PIER. He has both industry and academic experience. He was recently elected to NAE, and President Elect of AP-S.

His research interests are in wave physics and mathematics of inhomogeneous media, as well as fast algorithms for scattering and radiation problems. He originated several fast algorithms for electromagnetics scattering and multiple-scattering inverse problems. His research group solved dense matrices for scattering problems with tens of millions of unknowns first time ever. His recent interest is in multi-physics phenomena including quantum effects. He has published many papers and books.
EMC for Emerging Technologies
James Drewniak, IEEE Fellow
Missouri University of S&T, USA

Abstract of the talk
Increasing data rates and design densities together with new enabling technologies present new challenges and necessitate new approaches in EMI design and mitigation, in order to meet design specifications, cost pressures, and regulatory requirements. This presentation will highlight several trends in EMI research with examples in the fields of above 10 GHz emissions, intra-system EMI, radio-frequency interference, noise source identification and modeling, mitigation techniques with new materials, tools, and design methodologies.

Biography of the speaker
James L. Drewniak, Fellow of IEEE, received B.S., M.S., and Ph.D. degrees in electrical engineering from the University of Illinois at Urbana-Champaign. He is currently professor with the Electromagnetic Compatibility Laboratory at Missouri S&T, in the Department of Electrical and Computer Engineering. His research is in electromagnetic compatibility, signal and power integrity, and electronic packaging.
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<td>Multi-layer Stacked 3D UHF-band Miniaturized Frequency Selective Structure</td>
<td>Tianhao He, Weiming Li, Wu Ren, Zhenghui Xue</td>
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<td>Design of a Multilayer FSS Transmission High-gain Antenna Array and Analysis of the Beam Control</td>
<td>Tianliang Zhang, Long Li, Rui Xi</td>
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<td>AMC-based High-isolation SIW Slot Array Antennas for Ka-band SAR Systems</td>
<td>Yuanyan Su, Zhining Chen</td>
<td>Singapore</td>
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<td>Circularly Polarized Cross-slot Antenna Array Fed by Substrate Integrated Waveguide</td>
<td>YuFeng Yin, Min Wang, Na Wu, Wen Wu</td>
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<td>Modified Silicon Micromachining Process with Air Cavities and Silicon-to-air Transitions for Low-loss Millimeter-wave Antenna Tape-out</td>
<td>Peiqin Liu, Yue Li, Zhijun Zhang, Zhenghe Feng</td>
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<td>Wideband SIW Horn Antenna Loaded with Offset Double-Sided Parallel-Strip Lines</td>
<td>Yufan Cao, Yingsong Zhang, Yang Cai, Zuping Qian</td>
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<td>15:00 - 15:10</td>
<td>Design of A Low Profile Wideband Circularly Polarized Magnetic-Electric Dipole Antenna Array</td>
<td>Wen Tian, Mang He, Xiaowen Xu, Chuanfang Zhang</td>
<td>China, Mainland</td>
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<td>15:10 - 15:20</td>
<td>Composite Right/Left-Handed Antenna Based on Triangle Substrate Integrated Waveguide Cavity</td>
<td>Wenjian Chen, Feng Xu, Jian Yang, Siyuan Yao</td>
<td>China, Mainland</td>
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16:00 - 16:10 Quantitative Characteristic Mode Far-Field Relations in Analyzing Unidirectional High-Directive ESAs
Ruiyang Li, Gao Wei (China, Mainland)

16:10 - 16:20 Leaky-Wave Radiation from Periodically Modulated Spoof Surface Plasmon Polaritons
Zhixia Xu, Xin Zhang, Shunli Li, Hongxin Zhao, Xiaoxing Yin (China, Mainland)

16:20 - 16:30 A Radiation Pattern Reconfigurable Yagi Antenna
Binglong Zheng, Guanghua Sun, Shiyuan Zhou, Saiwai Wong (China, Mainland)

16:30 - 16:40 A Simple Printed MIMO Antenna Pair with High Isolation Performance
Ziyang Wang, Luyu Zhao, Yuanming Cai, Yingzeng Yin (China, Mainland)

16:40 - 16:50 Generating the Dual-mode Vortex Electromagnetic Wave by Designing and Analysing of Dual-band Antenna Array
Peng Xu, Cheng Zhu, Changhong Liang (China, Mainland)

16:50 - 17:00 Through-the-wall Imaging Based on Modified Compressive Sampling Matching Pursuit
Yuteng Gao, Wencan Peng, Yan Qu, Jun Ding (China, Mainland)

16:50 - 17:00 Monitoring Blood Glucose Fluctuation using SIW Cavity with a Coupling Slot
Kaidi Xie, Louis WY LIU, Qingfeng Zhang, Qingsha Cheng (China, Mainland)

17:00 - 17:10 A Low-RCS and High-Gain Partially Reflecting Surface Antenna based on Coding Metasurface
Lei Zhang, Hao Tian Wu, Tiejun Cui (China, Mainland)

17:10 - 17:20 Tunable Spoof Localized Surface Plasmons on Dual Corrugated Disks
Liu Yang, Yongjin Zhou, Qianxun Xiao, Chao Zhang (China, Mainland)
13:30 - 13:50 The Recent Advance of ITU-R IMT-2020 Channel Model  
Jianhua Zhang (China, Mainland)

13:50 - 14:10 Recent Advances on OTA Testing for 5G Antenna Systems in Multi-probe Anechoic Chamber Setups  
Wei Fan, Gert Frølund Pedersen, Pekka Kyösti, Aki Hekkala, Tommi Jämsä, Mattias Gustafsson (Denmark)

14:10 - 14:30 Analysis of the Test Zone by Throughput in the Multi-Probe Anechoic Chamber system  
Xianhui Liu, Bo Lu, Zheng Liu, Huaizhi Yang, Jin Wang, Wei Li, Xun Dai (China, Mainland)

14:30 - 14:50 5G Antenna System OTA Testing with Plane Wave Generator in Range-constrained Anechoic Chamber  
Xiaohui Zhang, Zhihua Zhang, Yujuan Ma (China, Mainland)

14:50 - 15:10 Performance Evaluation of Sectored MPAC for 5G UE Antenna Systems  
Aki Hekkala, Pekka Kyösti, Jukka Kyröläinen, Lassi Hentilä, Wei Fan (Finland)

16:00 - 16:20 Challenges and opportunities on intelligent vehicle tests in anechoic chamber  
Jianmei Lei, Yang Xu, Tian Tian, Rui Chen, Min Chen, Jin Jia (China, Mainland)

16:20 - 16:40 Emulating a Moving Cluster in a Massive MIMO OTA Test Scenario  
Doug Reed, Alfonso Rodriguez-Herrera (United States)

16:40 - 17:00 Data-driven Wireless Calibration and Testing  
Zhi Quan (China, Mainland)

17:00 - 17:20 Challenges on wireless performance testing for 5G Massive MIMO  
Guangyi Liu, Yi Zheng, Yan Li (China, Mainland)
2017-10-17 PM
Room B

ORAL Session: TP1B
Antennas
Session Chairs: Hiroyuki Arai and Bin Li

13:30 - 14:00 Slant 45° Polarized Multi-Frequency Cylindrical Slot-Dipole Antenna *(invited)*
*Hiroyuki Arai, Bakar Rohani, Ryosuke Kaneda* (Japan)

14:00 - 14:20 Broad-Angle Beam Scanning SIW Leaky-Wave Slotted Antenna
*Du-Juan Wei, Jian-Ying Li, Rui Xu, Jiang-Jun Yang, Yang-Xiao Qi* (China, Mainland)

14:20 - 14:40 Planar End-Fire Circularly Polarized Antenna With Wide Bandwidth
*Xinmeng Lv, Weiping Ding, Wenquan Cao, Zhiyuan Zeng* (China, Mainland)

14:40 - 15:00 A Wideband Tri-Polarized Antenna at 2.4 GHz for Array Application
*Zhi-Peng Liu, Ruo-Fan Li, Bin Li, Yong Liu, Xin Lv* (China, Mainland)

15:00 - 15:20 Leaky Coaxial Cable for Near-field UHF RFID Applications
*Jinjun Jiang, Lu Wang, Gang Wang* (China, Mainland)

ORAL Session: TP2B
Antennas
Session Chairs: Anil Kumar Pandey and Xiaodong Chen

16:00 - 16:30 5G Communication and Phase Array Antenna Design *(invited)*
*Anil Kumar Pandey* (India)

16:30 - 16:50 Study of Frequency-Alterable Microstrip Antenna Based on Temperature Sensing Material
*Penghui Fu, Yuan Yao, Xiaoming Liu, Limei Qi, Zhijiao Chen, Junsheng Yu, Xiaodong Chen* (China, Mainland)

16:50 - 17:10 Miniaturization Microstrip Antenna Design based on Artificial Electromagnetic Structure
*Qian Wang, Ning Mu, Linli Wang, Jingping Liu, Ying Wang* (China, Mainland)

17:10 - 17:30 UHF RFID Tag Antenna Design for Far-distance Application and Large-scale Manufacture
*Huijun Chen, Hongwei Shen* (China, Mainland)

17:30 - 17:50 Analysis of Reflector Surface Distortions by Computer Simulation
*Junhao Shen, Zhang Ye* (China, Mainland)
ORAL Session: TP1C
Antennas
Session Chairs: Shaoqiu Xiao and Xiuping Li

13:30 - 14:00
Wideband Wide Angle Electronically scanned array Antenna (invited)
Shaoqiu Xiao, Zhiguo Jiang, Yan Li, Chunmei Liu, Bing-Zhong Wang (China, Mainland)

14:00 - 14:20
Research on Reflective Circular Polarization Antenna Based on Electromagnetic Control
Yongguang Zhou, Minquan Li, Xu Pan, Chunchun Shen, Shandong Wang, Xuanxuan Li (China, Mainland)

14:20 - 14:40
High-gain substrate integrated cavity antenna for W-band applications
Xiao-Chuan Wang, Chen-Wu Yu, Xian-Long Lu, De-Chao Qin (China, Mainland)

14:40 - 15:00
Compact Magneto-Electric Dipole Antenna With Low-Profile for LTE Femtocell Base Stations
Yanyang Liu, Minquan Li, Yu Zhang, Yingbo Wu, Xiaopan Xia (China, Mainland)

15:00 - 15:20
A 16-bit Chipless RFID Tag with Quasi-Complementary Structure
Jia Song, Xiuping Li, Hua Zhu (China, Mainland)

ORAL Session: TP2C
Antennas
Session Chairs: Zuping Qian and Wen Wu

16:00 - 16:30
Design of High Performance Substrate Integrated Waveguide Horn Antennas (invited)
Zuping Qian (China, Mainland)

16:30 - 16:50
Wide-Beam Circularly Polarized Microstrip Antenna with high Front-to-Back Ratio for CNSS Application
Yuan Yuan, Min Wang, Yufeng Yin, Wen Wu (China, Mainland)

16:50 - 17:10
A Novel Dual-Band Resonator Antenna Loaded with Three Dielectric Slabs
Gao-Peng Zhong, Yin-Hua Yu, Zhi-Yuan Zong, Wen Wu, Da-Gang Fang (China, Mainland)

17:10 - 17:30
An Electronically Controlled CRLH Transmission-Line Leaky-Wave Antenna
Jiaxin Feng, Shaoqiu Xiao, Jiabo Liu (China, Mainland)

17:30 - 17:50
A Compact Wideband Filtering Quasi-Yagi Antenna
Hang Yin, Min Wang, Jianpeng Wang, Wen Wu (China, Mainland)
ORAL Session: TP1D
Antennas
Session Chairs: Hanyang Wang and Yingsong Li

13:30 - 14:00 Overview of Characteristic Mode Analysis in Antenna Design of Mobile Terminals (invited)
Hanyang Wang (United Kingdom)

14:00 - 14:20 A Ku-band Groove Gap Waveguide Antenna based on Taylor Line Source Method
Xingchao Dong, Hongjian Wang, Fei Xue, Yang Liu (China, Mainland)

14:20 - 14:40 A Single-Probe Feed Slot Antenna with High-Gain and Low Sidelobe Property
Wenfang Peng, Wenquan Cao, Zuping Qian (China, Mainland)

14:40 - 15:00 Compact Triplex Microstrip Slot Antenna Based on Triple Feeding Types
Yanghui Tong, Zuping Qian, Wenquan Cao (China, Mainland)

15:00 - 15:20 Leaky-Wave Antenna with Slots on Substrate Integrated Non-Radiative Dielectric Waveguide
Pengfei Kou, Yujian Cheng (China, Mainland)

ORAL Session: TP2D
Antennas
Session Chairs: Naoki Shinohara and Yi Huang

16:00 - 16:30 Antenna Absorption Efficiency and Beam Efficiency of a Microwave Power Transmission System (invited)
Naoki Shinohara, Yu Tsukamoto (Japan)

16:30 - 16:50 Tapered Slot Antenna Array for 5G Wireless Communication Systems
Pengfei Liu, Xiaowei Zhu, Hongjun Tang, Xiang Wang, Wei Hong (China, Mainland)

16:50 - 17:10 Seawater Electromagnetic Propagation Between Two Folded-Dipoles at ISM-Band
Chunbo Wu, Bingxin Liu (China, Mainland)

17:10 - 17:30 Miniaturized Circularly Polarized Antenna by the Spiral Slots on the ground plane
Songtao Yu, Haobin Zhang, Dan Yu (China, Mainland)

17:30 - 17:50 Design of Four Aperture Non-uniform Coverage Multi-beam Antenna in Ka-band
Wenxi Ye, Xiao Tao, Jixiang Wan, Wei Ding (China, Mainland)
ORAL Session: TP1E
Antennas
Session Chairs: QingXin Chu and Tao Yuan

13:30 - 14:00 Design of a low-profile base-station antenna (invited)
Wei Shi, Qing-Xin Chu (China, Mainland)

14:00 - 14:20 A Compact Planar Antenna Designed for All-Metal-Shell Handset Application
Chong-Zhi Han, Guan-Long Huang, Mo-Lin Fan, Tao Yuan (China, Mainland)

14:20 - 14:40 Design of A New Metal-Only Reflectarray Using Square Loop and Spiral Structure
Yang Liu, Hongjian Wang, Guang Liu, Xingchao Dong (China, Mainland)

14:40 - 15:00 Design of A Transparent Reflectarray Integrated with Solar Cells Using Quad-Key Element
Yang Liu, Hongjian Wang, Guang Liu, Xingchao Dong (China, Mainland)

15:00 - 15:20 Single Probe-Fed Dual-Band Dual-Circularly Polarized Antenna for Satellite Applications
Jun Wang, Ruofan Li, Kang An, Xianghui Wang, Jun Zheng, Shaojun Wang (China, Mainland)

ORAL Session: TP2E
Antennas
Session Chairs: Wen-Jun Lu and Shi-Wei Qu

16:00 - 16:30 Conceptual Design of Planar Endfire Circularly Polarized Antenna with Enhanced Directivity (invited)
Kang Wang, Wen-Jun Lu (China, Mainland)

16:30 - 16:50 A Low-Profile Wideband Phased Array Antenna with Parasitic Element for Wide Angle Scanning
Ya-Ru Wang, Shi-Wei Qu (China, Mainland)

16:50 - 17:10 Bandwidth-Enhanced of a Very Simple Circularly Polarized Square Slot Antenna with Offset Feed and Modified Ground Plane
Jie Liu, Jian-Ying Li, Rui Xu, Du-Juan Wei (China, Mainland)

17:10 - 17:30 Design and Analysis of a Compact CPW-Fed UWB Antenna with Quadruple Notched Bands
Zeng-Pei Zhong, Qing-Fa Zeng, Chong-Zhi Han, Mo-Lin Fan, Guan-Long Huang, Tao Yuan (China, Mainland)

17:30 - 17:50 Design of a Compact CPW-Fed Monopole Antenna with Multiple Band-Notched Characteristics for UWB Applications
Qing-Fa Zeng, Zeng-Pei Zhong, Chong-Zhi Han, Mo-Lin Fan, Guan-Long Huang, Tao Yuan (China, Mainland)
13:30 - 14:00 Wideband RCS Reduction Using Two Dimensional Phase Gradient Metasurface (invited)
Wenbo Zhang, Ying Liu, Shuxi Gong (China, Mainland)

14:00 - 14:30 Effect of mutual coupling between array elements on self-interference suppression of MIMO Full-Duplex system (invited)
Qiaowei Yuan, Qiang Chen, Naoki Honma, Nobuyasu Takemura (Japan)

14:30 - 14:50 A Dual-Band and Dual-Polarization Antenna with Two Nested Triangular Rings
Linli Jiang, Chunlan Lu, Wenquan Cao, Changsong Wu, Feng Yuan (China, Mainland)

14:50 - 15:10 A wideband multifunctional metasurface for antenna application
Wei Chen, Jun Gao, Xiangyu Cao, Sijia Li, Zhao Zhang (China, Mainland)

15:10 - 15:30 Frequency Reconfigurable Bow-Tie Antenna with Artificial Magnetic Conductor Loading
Tong Li, Xiangyu Cao, Qi Li, Jun Gao, Huanhuan Yang (China, Mainland)

16:00 - 16:30 IEEE Women in Engineering Affinity Group activities in Japan (invited)
Basabi Chakraborty (Japan)

16:30 - 17:00 Topology Optimization of Patch Antennas with Specified Polarization and Beam Characteristics (invited)
Xue-Song Yang, Jian Wang, Bing-Zhong Wang (China, Mainland)

17:00 - 17:20 Research on Statistical Characteristics for the part-shadowing channel Model
Wenping Ren, Fuhua An, Dongya Shen, Bowen Liu, Xianghui Shan (China, Mainland)

17:20 - 17:40 Design of an On-Body Matched Wide-Slot UWB Antenna for Brain Activities Detection
Chaoji Zheng, Xing Jiang, Bo Kang, Xiaoming Li, Zhe Geng (China, Mainland)
2017-10-17 PM  
Room G

**ORAL Session: TP1G**  
**Antennas**  
Session Chairs: Wonbin Hong and Yanhui Liu

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<td>Coexistence Issues concerning 4G and mmWave 5G Antennas for Mobile Terminals (invited)</td>
<td>Yeonwoo Kim, Wonbin Hong (South Korea)</td>
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<td>Dual-Frequency SIW Cavity-Backed Slot Antenna Using Two High-Order Modes</td>
<td>Kaida Xu, Wexun Li, Yanhui Liu (China, Mainland)</td>
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<td>Generation of Plane Spiral Orbital Angular Momentum Microwave with Ring Dielectric Resonator Antenna</td>
<td>Ruofan Dong, Yiling Chen, Shilie Zheng, Xianbin Yu, Xiaofeng Jin, Hao Chi, Xianmin Zhang (China, Mainland)</td>
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<td>A Low PIM frequency and Polarization multiplexing Ku-Band Feed Chains for Satellite Antennas</td>
<td>Qiaoshan Zhang, Jingang Gong, Zhi Xu, Yuhua Li, Mingtao Zhang, QIngli Lv, Lei Zhang (China, Mainland)</td>
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<td>Siyuan Yao, Feng Xu, Jian Yang, Lewei Cao (China, Mainland)</td>
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**ORAL Session: TP2G**  
**Antennas**  
Session Chairs: Kunio Sawaya and Zhaoneng Jiang

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<td>Kuan-Hua Chen, Kunio Sawaya, Qiang Chen (Japan)</td>
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<td>Lulu Cai, Ze Yang, Mengjun Wang, Hongxing Zheng, Xia Wang, Jianfei Liu (China, Mainland)</td>
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<td>Mingyue Shui, Zhaoneng Jiang (China, Mainland)</td>
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<td>Analysis and Design of Novel UWB Cross-shaped Microstrip Antenna</td>
<td>Qingchun Zhang, Zhaoneng Jiang (China, Mainland)</td>
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<td>Jian Liu (China, Mainland)</td>
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ORAL Session: TP1H

Antennas

Session Chairs: Chang-Fa Yang and Qingfeng Zhang

13:30 - 14:00 Antenna and High Speed Connector Designs for 5G and High Speed Communications (invited)
Chang-Fa Yang, An-Yao Hsiao, Hsin-Fu Li, Hung-Wei Hsu (Taiwan)

14:00 - 14:20 Design and analysis of 3D circular waveguide frequency selective structure
Tianhao He, Weiming Li, Wu Ren, Zhenghui Xue (China, Mainland)

14:20 - 14:40 Mode analysis of Inverted V-Shaped Microstrip Leaky Wave Antenna
Abhishek Kandwal, Qingfeng Zhang, Yifan Chen, Xiaolan Tang, Ranjan Das, Tongfeng Guo (China, Mainland)

14:40 - 15:00 Differentially Fed Slot Antenna with Dual Band and Wide-Beam Radiation Pattern
Jiajia Guo, Shaoqiu Xiao, Shaowei Liao, Quan Xue (China, Mainland)

15:00 - 15:20 High Scanning-Rate Periodic Leak-Wave Antennas using Complementary Microstrip-Slotline Stubs
Jianwen Chen, Qingfeng Zhang (China, Mainland)

ORAL Session: TP2H

Antennas

Session Chairs: Mingchun Tang and Wen-Shan Chen

16:00 - 16:20 Design of wearable antenna with compact artificial magnetic conductor reflecting plate
Yan-Ning Yuan, Jiao-Jie Feng, Xiao-Li Xi (China, Mainland)

16:20 - 16:40 A Compact Tri-band Antenna for GPS and GSM Applications
Yaning Wang, Ying Li, Qi Zhu (China, Mainland)

16:40 - 17:00 A Simple Tunable Monopole Antenna with Sharp Controlled Notched Bands
Zhen-Long Liu, Changjun Liu (China, Mainland)

17:00 - 17:20 A Compact Printed Narrow-slot UWB Antenna for Communications
Zhaoneng Jiang, Junghuang Huang, Zheng Fang, Bangbang Zhang, Xiaochi Lu, Qingchun Zhang (China, Mainland)

17:20 - 17:40 Wideband Dual-Polarized Microstrip Antenna Array with High-Isolation and Low Cross-Polarization
Wenjie Zhang, Mang He, Xiaowen Xu, Chuanfang Zhang (China, Mainland)
13:30 - 14:00 From Fresnel Zone Antennas to Reflectarrays (invited)
   Yingjie Jay Guo (Australia)
14:00 - 14:30 Wireless Energy Harvesting from Hz to GHz (invited)
   Yi Huang, Chaoyun Song, Sheng Yuan, Jiafeng Zhou, Paul Carter (United Kingdom)
14:30 - 15:00 Progresses in Time-Domain Electromagnetic Modeling (invited)
   Zhizhang Chen, Huapeng Zhao, Jinyan Li (Canada)
15:00 - 15:30 Direction finding using time modulated array (invited)
   Ronghong Jin, Jingfeng Chen, Chong He, Xianling Liang, Weiren Zhu, Junping Geng (China, Mainland)
15:30 - 16:00 The development in switchable FSS radomes (invited)
   Qiang Zhang (China, Mainland)
16:00 - 16:30 Millimeter-Wave and Terahertz Antennas: From PCB to Silicon (invited)
   Sanming Hu, Wenbin Dou (China, Mainland)
16:30 - 16:50 A Chipless RFID Unit Based on Interference for Tag Location
   Nuanfeng Zhang, Xiongying Liu, Tianhai Chang (China, Mainland)
16:50 - 17:10 Design of Inline Sixth Order Single-layered SIW Filter with Cross Couplings Based
   on Meandering Electric Coupling Structure
   Changjiang You, Zhining Chen, Xiaowei Zhu (China, Mainland)
ORAL Session: TP2J (Joint Session)
Signal Integrity and Power Integrity
Session Chair: Jinliang He

16:00 - 16:20 Mysterious Discharging Phenomenon and Mechanism of Grounding Devices under Lightning (invited)
Jinliang He (China, Mainland)

16:20 - 16:40 An Data Pattern Optimized Method for Simultaneous Switching Noise Suppression and Good Signal Integrity in High Speed System Design
Tonghao Ding, Baoshu Xu, Guangchao Fu, Xu Yan (China, Mainland)

16:40 - 17:00 Influence of Package Parasitic Inductance on Transient Current Distribution Characteristics of Press Pack IGBT
Shenyang Mo, Zhibin Zhao, Peng Sun, Ying Lu, Xinling Tang (China, Mainland)

17:00 - 17:20 A Compact Common-Mode Suppression Filter for Differential Signal Transmission with Slow-Wave Structure
Wanli Jiang, Min Tang, Junfa Mao (China, Mainland)

17:20 - 17:40 Accurate and Efficient analysis of Power and Ground Planes based on WLP-FDTD
Wei Sun, Xiaochun Li, Junfa Mao (China, Mainland)
16:00 - 16:20 Millimeter-Wave Dielectric Resonator Antenna Proximity-Coupled with a Microstrip Patch (invited)
Hong-Xing Zheng, Mengjun Wang, Jianhui Bao, Erping Li (China, Mainland)

16:20 - 16:40 A New Design of Shuttle-type Circular Polarized Dipole Antenna
Bangbang Zhang, Zhaoneng Jiang, Wendi Sun, Xiaochi Lu, Xinwen Cao, Jiaxun Lv (China, Mainland)

16:40 - 17:00 Design and Analysis of Microstrip Quasi-Yagi Antenna
Wendi Sun, Zhaoneng Jiang, Yekui Zhong, Bangbang Zhang (China, Mainland)

17:00 - 17:20 Design of New Dual-band Left-handed Material Based on Mirror "Giant" Shape
Xuanxuan Li, Minquan Li, Chunchun Shen, Xu Pan, Shandong Wang, Yongguang Zhou (China, Mainland)

17:20 - 17:40 Design and Simulation of Left-handed Material Structure Based on Regular Hexagonal Metal
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**ORAL Session: WA1A**

**Special Session: New Small Antennas for Next-Generation Terminals - Organizers: Yingsong Li and GuangLi Yang**

**Session Chairs: Yingsong Li and GuangLi Yang**

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<td>Coupling Reduction between Circularly Polarized Patch Antennas with Spiral Resonator Structure</td>
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**ORAL Session: WA2A**

**Special Session: Novel Antenna and 3-D Printed Design for Practical Applications - Organizers: Guan-Long Huang and Desmond Sim**

**Session Chairs: Guan-Long Huang and Desmond Sim**

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**Antennas**

Session Chairs: Ville Viikari and Wenhua Chen

**ORAL Session: WA2B**

**Antennas**

Session Chairs: Hisamatsu Nakano and Xiaoming Chen
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**Antennas**
Session Chairs: Ling Jin and Zengrui Li

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Qiang Feng, Long Li (China, Mainland)

11:10 - 11:30 Investigation of Dual-mode SIW Filters with Different Port Positions  
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11:30 - 11:50 A differential waveguide phase shifter for Q-band cryogenic receivers  
Weiye Zhong, Xiaoxing Yin, Jun Shi, Cong Liu (China, Mainland)

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Guoqing Luo, Weiliang Yu, Yufeng Yu (China, Mainland)

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Zhenyu Yu, Wei Zhao, Le Xu, Xiaowei Shi (China, Mainland)

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Xiangpeng Liu, Kuisong Zheng, Longfei Xu, Yang Liu (China, Mainland)

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Cheng Chen, Yuyun Hu, Menglu Qiao, Zhongwei Yang (China, Mainland)

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Longfei Xu, Kuisong Zheng, Xiangpeng Liu, Yajing Li (China, Mainland)

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Session Chairs: Hui Li and Yikai Chen

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   Pengyu Chen, Mang He, Chuanfang Zhang (China, Mainland)

08:20 - 08:40 Probe-Fed Broadband Low-Profile Metasurface Antennas using Characteristic Mode Analysis
   Fenghan Lin, Zhining Chen (Singapore)

08:40 - 09:00 Automatic Feeding Arrangement based on Theory of Characteristic Mode
   Hui Li, Sining Sun, Baoyi Wang (China, Mainland)

09:00 - 09:20 Revisit of Signal Traces Crossing Split Ground Plane Using Characteristic Mode Analysis
   Zhongkui Wen, Qi Wu (China, Mainland)

09:20 - 09:40 Characteristic Mode Analysis of Composite Metallic-Dielectric Bodies
   Liwen Guo, Yikai Chen, Shiwen Yang (China, Mainland)

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Microwaves, Millimeter Waves, and THz
Session Chairs: Huei Wang and Wonbin Hong

10:20 - 10:50 Millimeter-Wave Planar Antenna Design Considerations for SiP and SoC Applications (invited)
   Li-Chi Chang, Huei Wang (Taiwan)

10:50 - 11:10 Research on the Technical of Microwave Dual-passbands Filters
   Liang-Yu Zhong (China, Mainland)

11:10 - 11:30 Compact Dual-band Bandpass Filter Based On Zeroth-order Resonator with Large Center Frequency Ratio
   Guangxu Shen, Wenquan Che (China, Mainland)

11:30 - 11:50 A Novel N-way Power Divider With In-phase or Out-of-phase Output
   Xu-Chun Zhang, Zhen-Heng Liao, Xiao Yang (China, Mainland)

11:50 - 12:10 Continuous and Reconfigurable Doherty Power Amplifier Using Tunable Comb Structure
   Xiaoxiao Kong, Chang Jiang You, Yuanwang Yang, Xueyong Zhu, Xuekun Du (China, Mainland)
2017-10-18 AM
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**EMC Measurements and Environment**

Session Chairs: Xingchang Wei and Xiuyin Zhang

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Da Yi, Xingchang Wei (China, Mainland)

08:20 - 08:40 Wideband and Multi-Band MIMO Antenna Using Hybrid Electric and Magnetic Coupling for Isolation Enhancement (**invited**)
Xiuyin Zhang, Chengdai Xue, Wen Duan (China, Mainland)

08:40 - 09:00 Model Pre-processing Technique for Electromagnetic Susceptibility Assess on Land Vehicle
Xiaofan Zhao, Chunming Li (China, Mainland)

09:00 - 09:20 Millimeter-Wave Propagation Measurement and Simulation in a Indoor Office Environment at 28 GHz
Shuangde Li, Yuanjian Liu, Leke Lin, Mengxue Wang, Zhong Sheng, Dingming Sun (China, Mainland)

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Jiayi Wu, Shuo Cui, Donglin Su (China, Mainland)

10:20 - 10:40 Accurate Solution of Volume Integral Equations for Dielectric Body of Revolution
Shuna Jiang, Meisong Tong (China, Mainland)

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Ting Wan, Mengze Li, Benliu Tang (China, Mainland)

11:00 - 11:20 A Novel TDFEM Scheme Based on High Performance Parallel Solver PaStiX
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11:20 - 11:40 RSSI-Based Indoor Location with Circularly Polarized Antennas and LUDM Algorithm for Wireless Sensor Network
Cong Wang, Ruixuan Huang, Minfeng Gu, Gaobiao Xiao (China, Mainland)

11:40 - 12:00 A Simple Design Method for Dual-band Filtering Antenna Array Using a Transmission Line
Yao Zhang, Xiuyin Zhang, Yong-Mei Pan, Quan Xue (China, Mainland)

12:00 - 12:20 A Feasibility Study of Microwave Respiration Monitoring
Haolin Zhang, Maokun Li, Fan Yang, Shenheng Xu (China, Mainland)

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**Low Frequency and Power Electronics & Lightning**

Session Chairs: Cheng Zhuo and Yan Li

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**ORAL Session: WA2H (Joint Session)**

**High Power Electromagnetics**

Session Chairs: Qi Wu and Henglin Chen

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ORAL Session: WP1A
Special Session: Miniaturization and De-coupling Techniques for Base Station Antennas - Organizers: Xiuyin Zhang and Sheng Sun
Session Chairs: Xiuyin Zhang and Sheng Sun

13:30 - 14:00 Miniaturized Dual-Band Base Station Antenna Arrays with Filtering Elements
(invited)
Xiuyin Zhang (China, Mainland)
14:00 - 14:20 Multi-band Antenna Design for Full Metal Casing Mobile Handset
Kuixi Yan, Peng Yang, Feng Yang, Ximeng Wang, Junxiao Wang (China, Mainland)
14:20 - 14:40 Synthesis and Design of Filtering Antenna Based on J/K Inverters and λ/4 Resonators
Peijin Dong, Sheng Sun, Xi Yu (China, Mainland)
14:40 - 15:00 Design of High-Isolation Diplexer Based on Microstrip Coupled Lines
Xun Chen, Xi Yu, Sheng Sun (China, Mainland)
15:00 - 15:20 Performance Study of Sequentially Rotated Feeding Antenna Array for Circular Polarization
Yan Li, Buning Tian (China, Mainland)

ORAL Session: WP2A
Special Session: Graphene based micro/millimeter wave components - Organizer: Weibing Lu
Session Chairs: Weibing Lu and Bian Wu

16:00 - 16:20 Tunable Ultra Wideband Microwave Absorber Based on Multilayer Graphene Resistive Loops
Jin Zhang, Weibing Lu, Hao Chen, Zhenguo Liu (China, Mainland)
16:20 - 16:40 A Tunable Attenuator on Graphene-based Substrate Integrated Waveguide
Anqi Zhang, Weibing Lu, Zhenguo Liu, Yang Yi, Hao Chen, Baohu Huang (China, Mainland)
16:40 - 17:00 Graphene-based Broadband Reflection-type Modulator with Tunable Amplitude
Huiling Li, Bian Wu, Yutong Zhao, Wei Zhang, Lianxing He (China, Mainland)
17:00 - 17:20 Study of a Metallic Antenna Backed by Graphene-Based Reflector
Danli Tang, Bin Zhang, Chengguo Liu, Jingwei Zhang, Daping He, Zhi Wu (China, Mainland)
17:20 - 17:40 Flexible Graphene Based Films for Microstrip Array Antennas
Rongguo Song, Chunyu Liu, Jingwei Zhang, Chengguo Liu, Daping He, Zhi Wu (China, Mainland)
2017-10-18 PM
Room B

**ORAL Session: WP1B**

**Antennas**

Session Chairs: Steven Gao and Shiwen Yang

13:30 - 14:00 Wideband Circularly Polarized Antennas for Satellite Communications (*invited*)

*Long Zhang, Steven Gao, Qi Luo* (United Kingdom)

14:00 - 14:20 Design of broadband end-fire antenna array

*Haobin Zhang, Liang Wang, Wangwang Han* (China, Mainland)

14:20 - 14:40 A Novel Wideband and High-Gain Bow-tie Slot Antenna with Aperture Coupled Feeding Structure

*Hao Wang, Zengxia Ding, Shuang He, Jinyin Cao, Yuqian Yang* (China, Mainland)

14:40 - 15:00 A Directional Conformal Antenna Array for Failure Detectors in Smart Grid Applications

*Fuwen Tan, Duolong Wu, Bei Huang, Jianfeng Li* (China, Mainland)

15:00 - 15:20 Planar Series-Fed Antenna Array for 77 GHz Automotive Radar

*Jianjie Yan, Haiming Wang, Jiexi Yin, Chen Yu, Wei Hong* (China, Mainland)

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**ORAL Session: WP2B**

**Antennas**

Session Chairs: Raj Mittra and Xianling Liang

16:00 - 16:30 Offset-fed Metal-only Reflectarray Antenna Designs (*invited*)

*Raj Mittra, Shaileshchandra Pandey, Ravi Kumar Arya* (United States)

16:30 - 16:50 Compact Two-Layer Rotman Lens-Fed Circularly Polarized Antenna Array

*Jianping Li, Weiren Zhu, Kun Wang, Xudong Bai, Guanshen Chengu, Liang Liu, Yifeng Chen, Xianling Liang, Junping Geng, Ronghong Jin* (China, Mainland)

16:50 - 17:10 Linear to Circular Polarization Converter With Third Order Meta-Frequency Selective Surfaces

*Fuheng Zhang, Guo-Min Yang, Ya-Qiu Jin* (China, Mainland)

17:10 - 17:30 Meta-mirrors with Negative Reflections

*Rui Yang* (China, Mainland)

17:30 - 17:50 On Semi-Classical Optical Reponse of Metallic Silver and Silver Coated Silica Nanoparticles

*Atta ur Rahman, Junping Geng, Sami Rehman, Ronghong Jin, Xianling Liang, Weiren Zhu* (Pakistan)
2017-10-18 PM
Room C

**ORAL Session: WP1C**
**Antennas**
Session Chairs: Xianmin Zhang and Xiangyu Cao

- **13:30 - 14:00** Grouping Plane Spiral Electromagnetic Waves for Structured RF Beams *(invited)*
  Xianmin Zhang, Shilie Zheng (China, Mainland)

- **14:00 - 14:20** A 77GHz Dielectric Resonator Antenna Array Using Dielectric Image Insular Guide
  Xing Jiang, Quan Li, Xiaofeng Li, Xin Liao, Kun Wang (China, Mainland)

- **14:20 - 14:40** Decoupled Range-Angle Beampattern Synthesis of Frequency Diverse Array Using Genetic Algorithm
  Can Cui, Xiuiaoye Ye, Wentao Li, Xiaowei Shi (China, Mainland)

- **14:40 - 15:00** Constraint Antenna Array Beamforming Based on Multi-objective Radial Basis Function Neural Network
  Zhong-Hui Zhao, Hui-Ling Zhao, Ming-Xuan Zheng (China, Mainland)

- **15:00 - 15:20** Antenna Design for 5G Communications
  Peter WFutter, Jordi Soler (United States)

**ORAL Session: WP2C**
**Antennas**
Session Chairs: Wenquan Che and Sanming Hu

- **16:00 - 16:30** Researches on Low-Profile Frequency-Selective Raporbers *(invited)*
  Wenquan Che, Ye Han, Xin Xiu, Hao Chen (China, Mainland)

- **16:30 - 16:50** Design of Wideband MIMO Handset Antennas Using Characteristic Modes
  Ke Li, Zhen-Guo Ban, Yan Shi, Long Li (China, Mainland)

- **16:50 - 17:10** Bayesian Compressive Sensing for Target Detection and Parameter Estimation Using MIMO Radar
  Jun Liu, Jianbo Wang, Zisheng Gao, Guang Hua (China, Mainland)

- **17:10 - 17:30** E-Band Horn Antenna Array with Reduced Sidelobes
  Liting Qin, Gaoming Xu, Yunlong Lu, Qingchun You, Jifu Huang (China, Mainland)

- **17:30 - 17:50** Design of Amplitude Weighting Array with Multiple broad nulls using Immune Algorithm
  Yufeng Wang, Fei Zhao, Jianhua Zhou (China, Mainland)
ORAL Session: WP1D
Measurements
Session Chairs: Jun Hu and Meisong Tong

13:30 - 14:00 Fast Integral Equation Methods for Solving Scattering from Bodies of Revolution (invited)
Yu-Ke Li, Jun Hu, Zaiping Nie, Qinghuo Liu (China, Mainland)

14:00 - 14:20 Sheet Resistance Evaluation of Conductive Thin Films Using Microstrip Antenna
Ming Ye, Lu Wang, Yongning He, Mojgan Daneshmand (China, Mainland)

14:20 - 14:40 LoRa Propagation Testing in Soil for Wireless Underground Sensor Networks
Xuefen Wan, Yi Yang, Jian Cui, Muhammad Sohail Sardar (China, Mainland)

14:40 - 15:00 Far field reconstruction for reflector antenna using planar Fresnel field samples
Yang Bai, Shun-You Qin (China, Mainland)

ORAL Session: WP2D
Measurements
Session Chairs: Hongsheng Chen and Wenbin Dou

16:00 - 16:30 Reconfigurable Chiral Metamaterials based on Origami and kirigami (invited)
Liqiao Jing, Zuojia Wang, Bin Zheng, Huaping Wang, Renuka Maturi, Hongsheng Chen (China, Mainland)

16:30 - 17:00 Secondary Electron Emission Yield Measurement of Dielectric Materials for Satellite Antenna (invited)
Tiancun Hu, Isabel Montero, Pablo Pérez-Villacastín, Wanzhao Cui, Meng Cao, Qi Wang (China, Mainland)

17:00 - 17:20 A Four-band Wide-angle Metamaterial Absorber at Microwave Frequency
Shixian Xu, Yuran Wang, Qizhang Zhou, Lin Cheng, Pengfei Cao, Jie Dou (China, Mainland)

17:20 - 17:40 Study on Complex Permittivity Measurements at Super-High Temperatures Using a Novel MultiFunctional Ellipsoidal Cavity/Mirror
Baojie Wang, Shuiling Fan, Long Wang, Wenbin Dou (China, Mainland)

17:40 - 18:00 A Tunable Water-based Metamaterial Microwave Absorber
Zixiang Han, Junming Zhao, Yijun Feng (China, Mainland)
**ORAL Session: WP1E**

**Electromagnetics**

Session Chairs: Wanchun Tang

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| 13:50 - 14:10 | Planar Six-Petaled Artificial Magnetic Conductor with Miniaturized Size and Improved Bandwidth  
Yingbo Wu, Jun Wang, Xiaopan Xia, Minquan Li (China, Mainland) |
| 14:10 - 14:30 | Band Rejection Filter Based on a Composite Spoof Surface Plasmon Periodic Structure  
Michael Chisala, Jing Zhou, Dong Yang, Lin Hai (China, Mainland) |
| 14:30 - 14:50 | A Unit of Right-Angled Triangle Microstrip Artificial Transmission Line  
Wen Huang, Jia Li, Honggang Hao, Bin Wang, Xi Guo (China, Mainland) |

**ORAL Session: WP2E**

**Electromagnetics**

Session Chairs: Weixiang Jiang and Chang-Fa Yang

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Weixiang Jiang, Na Zhang, Wenxuan Tang, Huifeng Ma (China, Mainland) |
| 16:30 - 16:50 | Radar target characteristic extraction and rebuilding of multi-target based on scattering center  
Jianzhou Li, Chaoqun Fan, Liu Lu, Wenzhuo Wang, Xiaoyang Wang (China, Mainland) |
| 16:50 - 17:10 | Investigation of Frequency Selective Transmission and Absorption Composites  
Zheyipei Ma, Siyu Chen, Xinyu Hou (China, Mainland) |
| 17:10 - 17:30 | A Novel Wide-Angle FSS for In-Band Antenna RCS Reduction  
Tongxin Wei, Gaigai Zhang, Jun Ding, Chenjiang Guo (China, Mainland) |
| 17:30 - 17:50 | Geometric Phase Coded Microwave Metasurface for Ultra-wideband Radar Cross Section Reduction  
Li Cui, Ke Chen, Yijun Feng, Junming Zhao, Tian Jiang, Bo Zhu (China, Mainland) |
ORAL Session: WP1F
Microwaves, Millimeter Waves, and THz
Session Chairs: Qiaowei Yuan and Shaoyong Zheng

13:30 - 14:00 Matching Circuit with Ohmic Loss in Reactive Components for Wireless Power Transfer System (invited)
Qiaowei Yuan, Satoshi Suzuki, Qiang Chen (Japan)

14:00 - 14:20 A 140 GHz Common-Base Cross-Coupled VCO with feedback inductor in InP HBT Technology
Rui Lin, Jun Liu, Guodong Su, Wenjie Jiang (China, Mainland)

14:20 - 14:40 Synthesis and Implementation of Superluminal Circuits with Zero Group Delay
Ranjan Das, Qingfeng Zhang, Jayanta Mukherjee, Abhishek Kandwal (India)

14:40 - 15:00 Broadband and Highly Efficient Class-J Power Amplifier with Compact Output Matching Network
Dan Xie, Chang Jiang You, Yuanwang Yang, Xueyong Zhu, Xuekun Du, Ke Han (China, Mainland)

15:00 - 15:20 Bandpass Filtering Coupler based on Dual-mode Dielectric Resonators
Shaoyong Zheng, Yongxuan Zheng (China, Mainland)

ORAL Session: WP2F
Microwaves, Millimeter Waves, and THz
Session Chairs: Zhijun Zhang and Dongya Shen

16:00 - 16:30 Millimeter and T-Hz antenna manufactured by MEMS Silicon Bulk Micromachining Technology (invited)
Zhijun Zhang (China, Mainland)

16:30 - 16:50 A Cascaded Six Order Bandpass SIW Filter Using Electric and Magnetic Couplings Technology
Ming Dong, Dongya Shen, Chaojun Ma, Xiupu Zhang (China, Mainland)

16:50 - 17:10 Rational modeling of narrow band antenna by vector fitting
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17:10 - 17:30 Design of a First-Order Microwave Differentiator using Modified Ladder Network
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17:30 - 17:50 An Ultra-wideband 3-dB Coupler Using Multilayer Substrate Integrated Stripline
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Special Session: Phased Array Design the Measurement Challenges
-Organizer: Yihong Qi
Session Chairs: Yihong Qi

13:30 - 13:50 Phased Array Over-the-Air Measurement Challenges (**invited**)
Yihong Qi, Wei Yu, Lie Liu, Jun Fan, Antonio Orlandi (China, Mainland)

13:50 - 14:10 Improved Design of Broad Wall WSA for an Application of One-dimension Active Phased Array
Yuan Yuan, Xu Zhi (China, Mainland)

14:10 - 14:30 An Accurate Mid-Field Calibration Technique for Large Phased Array Antenna
Ruoxin Li, Jianbo Zhang, Chengguo Li, Yan Li, Buning Tian, Chunbang Wu (China, Mainland)

14:30 - 14:50 Design of a Cooling System for High Density Integrated Phased Array Antenna Test
Jianbo Zhang, Ruoxin Li, Xiangyang Xu, Chunbang Wu (China, Mainland)

14:50 - 15:10 Millimeter Wave Absorber for 5G Anechoic Chambers: Challenges and Opportunities
Lie Liu, Yongjian Zhu, Yihong Qi, Wei Yu, Fuhai Li, Panjun Gong, Qingchun Luo (China, Mainland)

Kai Zhang (China, Mainland)

ORAL Session: WP2G (Joint Session)
Special Session: Phased Array Design the Measurement Challenges
-Organizer: Yihong Qi
Session Chairs: Yihong Qi

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16:20 - 16:40 A Ka-band Sampling Antenna with Symmetric Radiation Pattern
Jiyu Wu, Yihong Qi, Wei Yu, Lie Liu (China, Mainland)

16:40 - 17:00 A Novel Equivalent Element Antenna with Flat-Topped Pattern in the Applications of GEO Satellite PAA
Chengguo Li, Zhengjie Zhang, Ruoxin Li (China, Mainland)

17:00 - 17:20 Optimized RF design key issues based on 5G OTA parameters
Guang Yang, Dapeng Wang, Jixiang Fu, Shao Zhe (China, Mainland)

17:20 - 17:40 Complete Test Facilities for the Emulation of Multi-Antenna Wireless Channels
Yao Li, Xiao-Wei Zhu, Ling Tian, Nian-Zu Zhang (China, Mainland)

17:40 - 18:00 Best Wide-beam Coverage Design for Planar Small-scale Array Antenna
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High Power Electromagnetics
Session Chairs: Wensheng Zhao and Liang Zhou

13:30 - 13:50 A Design of Tunable High-Impedance Surface (HIS) Based on Hybrid Metal-Graphene Structure (invited)
Wensheng Zhao, Dawei Wang, Gaofeng Wang, Wenyan Yin (China, Mainland)

13:50 - 14:10 Electro-Thermal-Stress Analysis of RF Front-End Devices Breakdown under Intentional EMI (invited)
Liang Zhou, Xiang Chen, Junfa Mao (China, Mainland)

14:10 - 14:30 Analysis of Radiation Fields of Little BWS for Biomedical Experiment
Xiangqin Zhu, Weiqing Chen, Jianguo Wang, Zaigao Chen (China, Mainland)

14:30 - 14:50 Analysis of LNA under multi-pulses IEMI
Yong Li, Haiyan Xie, Chun Xuan, Jianguo Wang (China, Mainland)

14:50 - 15:10 Probability Analysis of HEMP Coupling to Power Line
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Low Frequency and Power Electronics
Session Chairs: Shilie Zheng and Donglin Meng

16:00 - 16:20 Capacity analysis of plane spiral Orbital Angular Momentum based Multi-Input-Multi-Output (PSOAM-MIMO) system (invited)
Shilie Zheng, Xianmin Zhang (China, Mainland)

16:20 - 16:40 Uncertainty of Validating Semi-Anechoic Chambers for Radiated Emission Measurement (invited)
Donglin Meng, Xiao Liu, Li Hong, Hao Ban (China, Mainland)

16:40 - 17:00 PETT Oscillation Characteristics in Press Pack IGBTs
Xinling Tang, Yan Pan, Peng Zhang, Jinyuan Li, Rui Jin, Zhibin Zhao, Xiang Cui (China, Mainland)

17:00 - 17:20 Conducted EMI Analysis of Double-side LCC Compensated WPT system
Tianluan Xiao, Wenjie Chen, Heyuan Qi, Zifeng Zhao, Yilin Sha (China, Mainland)

17:20 - 17:40 Electrical Field Analysis of press-pack IGBTs
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P.63 The diffusion conformal metasurface for wide-band RCS reduction of cylindrical target
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P.68 2-Bit Programmable Digital Metasurface for Controlling Electromagnetic wave
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P.69 Through-the-Wall Imaging Based on Phase Shift Migration and NUFFT
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Kai-Lai Zheng, Peng Chu, Wei-Bin Kong, Feng Xu (China, Mainland)

P.71 An Efficient FGG-FG-FFT with Adaptive Cross Approximation for Solving Electromagnetic Scattering Problems
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P.72 Design and Experiment of a Miniaturized High-Efficiency Printed Rectifier
Lingfeng Li, Xuexia Yang, Erjia Liu, Geliang Zhu (China, Mainland)

P.73 A 90-120 GHz Driver Amplifier with 70nm InP PHEMT
Jun Liu, Weihua Yu, Xin Lv (China, Mainland)

P.74 5G compatible front-haul transmission of OFDM-MIMO signal over multicore fibers
Li-Yan Zhu, Ming Tang, Xiao-Chuan Wang (China, Mainland)

P.75 A Compact Wideband Single-Ridge T-junction Waveguide Power Divider
Yang You, Yunlong Lu, Gaoming Xu, Qingchun You, Jifu Huang (China, Mainland)

P.76 Design and Implementation of A Ka-Band MMIC Driver Amplifier and Module
Jianyu Ma, Debin Hou (China, Mainland)
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ORAL Session: TA1A
Special Session: Current Trends and Advances in Computational Inverse Scattering - Theory, Techniques, and Applications- Organizers: Andrea MASSA, Maokun LI, and Marco SALUCCI
Session Chairs: Andrea Massa, Maokun LI and Marco SALUCCI

08:00 - 08:20 Accurate Boundary Extraction Method by Range Points Migration for Microwave Non-destructive Monitoring
*Shouhei Kidera, Shuto Takahashi* (Japan)

08:20 - 08:40 A Volume Integral Equation Method for MRI-Based Electrical Properties Tomography
*Ronghan Hong, Shengnan Li, Jianhua Zhang, Youyu Zhang, Na Liu, Zhiru Yu, Qinghao Liu* (China, Mainland)

08:40 - 09:00 Compressive-Processing Microwave Imaging
*Nicola Anselmi, Lorenzo Poli, Giacomo Oliveri, Andrea Massa* (Italy)

09:00 - 09:20 Advances in Multi-Resolution Approaches for Computational Inverse Scattering – On the Integration of Sparse Retrieval within the Multi-Resolution Inversion
*Lorenzo Poli, Giacomo Oliveri, Andrea Massa* (Italy)

09:20 - 09:40 SFCW Linear Sparse Array 2D Imaging Based on MV Beamformer with Wiener-poster Filter
*Weike Feng, Motoyuki Sato* (Japan)

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ORAL Session: TA2A
Special Session: Current Trends and Advances in Computational Inverse Scattering - Theory, Techniques, and Applications - Organizers: Andrea MASSA, Maokun LI, and Marco SALUCCI
Session Chairs: Andrea Massa, Maokun LI and Marco SALUCCI

10:20 - 10:40 A comparison of the MR-TSOM and DBIM in reconstructing 2D model of human breast
*Kuiwen Xu, Xizhu Ye* (China, Mainland)

10:40 - 11:00 Reconstruction of Dielectric Objects Using Diffraction Tomography of Ultrasonic Wave
*Jian Zhang, Chuxia Yang, Meisong Tong* (China, Mainland)

11:00 - 11:20 Device-free Human Monitoring using Channel State Information
*Federico Viani, Alessandro Polo, Marco Donald Migliore* (Italy)

11:20 - 11:40 Application of the Multiplicative Regularization Scheme to Electrical Impedance Tomography
*Ke Zhang, Maokun Li, Fan Yang, Shenheng Xu, Aria Abubakar* (China, Mainland)
ORAL Session: TA1B
Antennas
Session Chairs: Lixin Guo and Xiaoxing Yin

08:00 - 08:30 EM Scattering of Electrically Large Target above Sea Surface with SDFSM-SBR Method (invited)
Tiannian Feng, Lixin Guo (China, Mainland)

08:30 - 08:50 A Printed Magneto-Electric Dipole Based on Substrate Integrated Gap Waveguide
Chaojun Ma, Ming Dong, Dongya Shen (China, Mainland)

08:50 - 09:10 L-Shape Square Slot Circularly Polarized Antenna With Unidirectional Radiation Pattern
Rui Xu, Jian-Ying Li, Jie Liu, Du-Juan Wei (China, Mainland)

09:10 - 09:30 Multiband PIFA Antenna for UHF RFID Tag
Jui-Han Lu, Feng-Chuan Tsai (Taiwan)

09:30 - 09:50 A Low-Profile Dual-Band Antenna Loaded with the AMC Surface
Kedi Zhang, Xiangyu Zhou, Zichun Wei, Huiqing Zhai (China, Mainland)

ORAL Session: TA2B
Antennas
Session Chairs: Sungtek Kahng and Huiqing Zhai

10:20 - 10:50 Hybrid MIMO Antennas for Future 5G Smartphone Applications (invited)
Sungtek Kahng, Muhammad Kamran Khattak, Muhammad Salman Khattak, Abdul Rehman Khan, Changhyung Lee, Dajung Han, Heejun Park (South Korea)

10:50 - 11:10 Analysis of SIW 2X2 Slot Array Antennas Excited by TE20 mode
Junlin Zhan, Feng Xu, Zhongwei Yang (China, Mainland)

11:10 - 11:30 A Half-Space Covered Antenna for Air-Ground Communication
Guanshen Chenhu, Junping Geng, Han Zhou, Jianping Li, Liang Liu, Yifeng Chen, Yuliang Liang, Xianling Liang, Weiren Zhu, Ronghong Jin (China, Mainland)

11:30 - 11:50 A High-Gain Magneto-Electric Dipole Antenna
Hong Yuan, Xingxing Li, Xinfang Shuai, Wenping Ren, Taoyan Zhang, Dongya Shen (China, Mainland)

11:50 - 12:10 Epsilon-Negative Transmission Line-Based Microstrip Antenna for Conformal Applications
Wangwang Han, Haobin Zhang, Liang Wang (China, Mainland)
ORAL Session: TA1C
Antennas
Session Chairs: Kwai-Man Luk and Dazhi Piao

08:00 - 08:30 The open Resonator Antennas (invited)
Kwai-Man Luk (Hong Kong)

08:30 - 08:50 A High-Gain Compact Size Four-Port MIMO Antenna Array Working at 28 GHz
Hailong Yu, Dazhi Piao (China, Mainland)

08:50 - 09:10 Low-Profile End-fire Phased Array with Omni-Directional Scanning Characteristics
Fang Wang, Shiwen Yang, Yikai Chen, Shiwei Qu (China, Mainland)

09:10 - 09:30 Design of a Millimeter Wave Microstrip Array Antenna for 5G
Yuguo Lu, Hongfu Meng, Wenbin Dou (China, Mainland)

ORAL Session: TA2C
Antennas
Session Chairs: Yi Chen and Yong-Chang Jiao

10:20 - 10:50 Antenna Technology Innovation for Next Generation Microwave/Millimeter Wave Transmission (invited)
Yi Chen (China, Mainland)

10:50 - 11:10 A New Compact Dual-Band CP Antenna for GPS and DSRC Applications
You-Zhi Hu, Bin-Jie Hu, Hong-Lin Zhang (China, Mainland)

11:10 - 11:30 A Broadband ±45°Dual-Polarized Antenna for Base Station Applications
Yi He, Gengming Wei, Lin Yang, Xi Li (China, Mainland)

11:30 - 11:50 A Gain-enhanced Wideband Dual-polarized Antenna Based on SRRs and CSRRs
Yuhui Ren, Xue Liao, Handong Wu, Baojian Gao, Zhouhu Deng, Fuwei Wang, Ke Li, Jinping Niu (China, Mainland)

11:50 - 12:10 Parasitic Ring Loaded Wideband Circularly Polarized Cavity-backed Slot Antenna
Yi-Xuan Zhang, Yong-Chang Jiao, Huan Zhang (China, Mainland)
ORAL Session: TA1D Measurements
Session Chairs: Haiwen Liu and Houjun Sun

08:00 - 08:30 Design of Fourth-Order Dual-Band Superconducting Filter Using Dual-Mode Resonator (invited)
Haiwen Liu (China, Mainland)

08:30 - 08:50 A Wideband Transparent Absorber for Microwave and Millimeter Wave Application
Baoyue Xue, Yue Hu, Bian Wu, Liang Chen, Wei Zhang (China, Mainland)

08:50 - 09:10 Design of A Band-Pass FSS with Steep-Rejection Stopband by Equivalent Circuit Method
Yuan Xu, Mang He, Chuanfang Zhang, Houjun Sun (China, Mainland)

09:10 - 09:30 Ultra-Thin Broadband Microwave Absorber Using Resistive Sheets
Shicheng Liu, Haiming Wang (China, Mainland)

09:30 - 09:50 Tunable Ultra-thin P-band Absorber Based on Permeability-near-zero Metamaterial
Hua Huang, Wenjun Wang, Junming Zhao, Tian Jiang, Bo Zhu, Yijun Feng (China, Mainland)

ORAL Session: TA2D Measurements
Session Chairs: Qingsheng Zeng and Yongjin Zhou

10:20 - 10:50 Performance Analysis of Propagation Prediction Software Based on Physical Optics (invited)
Qingsheng Zeng (China, Mainland)

10:50 - 11:10 Planar Phaseless Near-Field Antenna Measurements using Interpolation Algorithm and Source Equivalence Theorem
Yuan Wang, Junping Shang, Yanchun Zuo, Kang Song (China, Mainland)

11:10 - 11:30 A Compact Double-Negative Metamaterial for Midrange Wireless Power Transfer
Huifen Huang, Shuainan Li (China, Mainland)

11:30 - 11:50 Designer Localized Surface Plasmons on Corrugated Ring with a Slit
Chao Zhang, Liu Yang, Qianxun Xiao, Yongjin Zhou (China, Mainland)

11:50 - 12:10 Tunable Spoof Localized Surface Plasmons on Metallic Spiral Structures
Ronglin Shao, Jing Cai, Yongjin Zhou (China, Mainland)
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ORAL Session: TA1E
Electromagnetics
Session Chairs: Douglas H Werner and Xiaowei Zhu

08:00 - 08:30 Inverse Design of Meta-devices: Optimization Strategies and Application Examples (invited)
Douglas H Werner, Pingjuan LWerner (United States)

08:30 - 08:50 Electromagnetic Scattering Characteristics of the Plasma Sheath Around Re-entry Hypersonic Vehicles
Run-hui Wu, Jia-Qi Liu, Gang Meng, Xin Liu, Ai-Min Ren, Xia Ai, Song Chai, Ju-Yan Zhao, Ya-Nan Li, Ming-Liang Wang (China, Mainland)

08:50 - 09:10 Research on the EMP coupling characteristic of typical cable penetration holes on the vessel
Qi-Feng Liu, Jing-Wei Liu (China, Mainland)

09:10 - 09:30 Analysis of Measured Sea clutter Power Distribution based on Goodness-of-Fit Tests
Xiaoyan Du, Peipei Wei, Guojun Tian (China, Mainland)

09:30 - 09:50 Dual-polarization Absorptive/Transmissive Frequency-selective Surface Utilizing Composite Metamaterial
Fanfan Xu, Wenjun Wang, Tian Jiang, Junming Zhao, Bo Zhu, Yijun Feng (China, Mainland)

ORAL Session: TA2E
Electromagnetics
Session Chairs: Kimberley W. Eccleston and Zhang-Cheng Hao

10:20 - 10:50 Fully-Printed S-band SRR/Wire NRI Lens with Reduced Wire Density (invited)
Kimberley W. Eccleston, Ian G.Platt, Adrian E.-C.Tan, Ian M.Woodhead (New Zealand)

10:50 - 11:10 Electromagnetic Scattering of Ground surface Combining with Man-made Target:Modeling and Simulation
Peng Guo, Chufeng Hu, Lifang Guo, Nanjing Li (China, Mainland)

11:10 - 11:30 Optimal cloak of anisotropic spheres
Lin Zhang, Qi Yang, Yan Shi, Long Li (China, Mainland)

11:30 - 11:50 The scattering characteristic mapping relation of similar targets
Jianzhou Li, Lu Liu, Wenzhuo Wang, Chaoqun Fan, Xiaoyang Wang (China, Mainland)

11:50 - 12:10 Accuracy Comparison of ASED Basis Function and Characteristic Basis Function for Scattering Analysis of finite Periodic Arrays
Ping Du, Cheng Wang (China, Mainland)
ORAL Session: TA1F
VMicrowaves, Millimeter Waves, and THz
Session Chairs: Qun Wu and Xuehui Guan

08:00 - 08:30 An Efficient Planar Meta-lens as Converged Vortex Beam Generator in Microwave Region (invited)
Qun Wu, Yueyi Yuan, Xumin Ding, Kuang Zhang (China, Mainland)

08:30 - 08:50 A Stacked Dual-mode Bandpass Filter with Circular Cavity
Ke-Qing Zhang, Tian-Qi Hao, Zhi-Hang Wu, Zheng-Bin Wang (China, Mainland)

08:50 - 09:10 Design of a Compact Diplexer Using Microstrip and Slotline Dual-Mode Resonators
Baoping Ren, Zhewang Ma, Haiwen Liu, Masataka Ohira, Pin Wen, Xiaolong Wang, Xuehui Guan (Japan)

09:10 - 09:30 Lumped-Element Absorptive Bandstop Filter based on Dual Composite Right/Left Handed Transmission Line
Cai Liu, Meiling Li, Qi Zhu (China, Mainland)

09:30 - 09:50 An improved CPW to CPS Balun for wideband applications
Fusheng Wang, Shufang Liu, Jingya Zhang, Gaoling Zhang, Xiaowei Shi (China, Mainland)

ORAL Session: TA2F
VMicrowaves, Millimeter Waves, and THz
Session Chairs: Dongya Shen and Weidong Hu

10:20 - 10:50 Advances on the Substrate Integrated Gap Waveguide (invited)
Dongya Shen, Ming Dong, Chaojun Ma (China, Mainland)

10:50 - 11:10 A Novel Quad-Mode Resonator and Filter
Lu Qian, Qing-Xin Chu (China, Mainland)

11:10 - 11:30 A novel band-pass filter based on spoof localized surface plasmons
Jing Cai, Yongjin Zhou, Ronglin Shao (China, Mainland)

11:30 - 11:50 The 220GHz Terahertz Radar System for Atmosphere Observation
Weidong Hu, Yameng Li, Shi Chen, Guicai Cao, P. Ligthart Leo (China, Mainland)

11:50 - 12:10 130 GHz On-Chip Dielectric Resonator Antenna Array in CMOS Technology
Debin Hou, Wei Hong, Jixin Chen, Zhe Song, Pinpin Yan, Yongzhong Xiong (China, Mainland)
### ORAL Session: TA1G (Joint Session)
**Low Frequency and Power Electronics**
Session Chairs: Lei Zhou and Qingfeng Zhang

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<td>Qingfeng Zhang, Ranjan Das, Yifan Chen</td>
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<td>Study on the Influence of Frequency Splitting of a WPT System on High Frequency Conducted EMI</td>
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<td>The Number of Chained π-type circuits for Dynamic Analogy of Half-wavelength Transmission Line Considering Short-circuit Fault</td>
<td>Yurong Li, Chongqing Jiao, Bei Wang</td>
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**System-Level EMC and Protection & Automotive, Railway and Naval EMC**
Session Chairs: Gaopeng Lu and Huapeng Zhao

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<td>Fast Wide-Band Electromagnetic Analysis Based on Adaptive and Extrapolatory Methods (invited)</td>
<td>Huapeng Zhao, Zhizhang Chen, Ying Zhang, Jun Hu</td>
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<td>Application of Resistive Graphene Lid for Suppressing Radiation Emission in WB-BGA Package</td>
<td>Ping Cheng, Xiaoli Yang, Le Zhang, Hang Jin, Yongsheng Li, Bin Li, Erping Li</td>
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<td>Mohammed Abdaldaim, Ping Wang, Lin Li</td>
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<td>11:40 - 12:00</td>
<td>Automotive Antenna Placement and EMC Analysis Combining Measurement with Simulation</td>
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**ORAL Session: TA1H (Joint Session)**

**Low Frequency and Power Electronics**

Session Chairs: Nan Wang and Tao Su

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<td>The TEM Normalized Mean Branches Number (NMBN) of the CG Lightning Near the Ground by the Coaxial Unification Fractal Model (CUFM) (invited)</td>
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<td>Modeling and Analysis on Radiation of On-Chip Power Ring (invited)</td>
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<td>08:40 - 09:00</td>
<td>Suppression of Common-mode Voltage under Different modes of Induction Machine Based on Improved Predictive Torque Control Method</td>
<td>Xiliang Chen, Wenjie Chen (China, Mainland)</td>
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<td>09:00 - 09:20</td>
<td>Study on The Issue of Electric Field Concentration in Submodule of Press Pack IGBTs</td>
<td>Jinyuan Li, Junda Sun, Zhibin Zhao, Peng Zhang, Nanwei Guo (China, Mainland)</td>
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<td>09:20 - 09:40</td>
<td>Characteristics of PETT Oscillation and Estimation of Frequency</td>
<td>Xinling Tang, Rui Jin, Chouwei Ni, Yan Pan, Zhibin Zhao, Xiang Cui (China, Mainland)</td>
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**ORAL Session: TA2H (Joint Session)**

**IC and Semiconductor EMC**

Session Chairs: Qiang Zhang and Haiyan Xie

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**Special Session: New Generation Antenna Array Synthesis: Methods, Algorithms, Architectures, and Applications - Organizers: Andrea MASSA, Renato LOMBARDI, and Nicola ANSELMI**
Session Chairs: Andrea MASSA, Renato LOMBARDI and Nicola ANSELMI

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### ORAL Session: TP2A
**Special Session: New Generation Antenna Array Synthesis: Methods, Algorithms, Architectures, and Applications - Organizers: Andrea MASSA, Renato LOMBARDI, and Nicola ANSELMI**
Session Chairs: Andrea MASSA, Renato LOMBARDI and Nicola ANSELMI

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Session Chairs: Hang Wong and Er-Ping Li

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Hang Wong, Kaixu Wang, Lei GE, Faping Wang (Hong Kong)

14:00 - 14:20 Novel Dual-Polarized and Closely Dual-Band Filtering Patch Antenna Array With Good Band-Notched Function
Mengzhu Xun, Wanchen Yang, Wenjie Feng, Wenquan Che, Huayan Jin (China, Mainland)

14:20 - 14:40 A Compact Microstrip Antenna with Four Operating Frequency Points
Zhiwei Song, Erping Li, Hongxing Zheng, Mengjun Wang (China, Mainland)

14:40 - 15:00 Design of Quad-band Antenna
Zixiang Lin, Xia Wang, Hongxing Zheng, Mengjun Wang, Er-ping Li (China, Mainland)

15:00 - 15:20 Performance Improvement and Size Reduction of Vivaldi Antennas using Defected Ground Structure
Hamza Abbas Kiani (Pakistan)

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Antennas
Session Chairs: Heyongdong Kim and Junping Geng

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Longyue Qu, Hyung-Hoon Kim, Heyongdong Kim (South Korea)

16:30 - 16:50 A Dual-Band Implantable Antenna Designed for Wireless Medical Applications
Wen-Jie Cui, Hong-Xing Zheng, Lu Wang (China, Mainland)

16:50 - 17:10 Generating wideband orbital angular momentum beams using helical antenna
Xiangyue Zhang, Jiayu Zheng, Shilie Zheng, Xianbin Yu, Hao Chi, Xiaofeng Jin, Xianmin Zhang (China, Mainland)

17:10 - 17:30 Realization of Various OAM Divergence Angles Based on Fabry-Perot Antenna Design
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17:30 - 17:50 A Miniaturized Quad-band Printed Antenna
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Qi Wu (China, Mainland)

14:00 - 14:20 Novel High-Efficiency High-Order-Mode Cavity-backed Array Antenna Using Metasurfaces With Complemental Boundaries
Si Chen, Wanchen Yang, Wenquan Che, Qian Meng, Huiting Yu (China, Mainland)

14:20 - 14:40 Effect of Geometrical Parameters on Beam Scanning Characteristics of Reflector Antennas
Shengpu Niu, Biao Du, Yang Wu (China, Mainland)

14:40 - 15:00 Gain Enhanced Compact Patch Antenna-in-Package Based on Embedded Wafer Level Packaging
Jie Wang, Jing Wang, Cheng Jin (China, Mainland)

15:00 - 15:20 A Directional Implantable Antenna Operating at ISM Band
Shu-Xian Dong, Jia-Xing Wang, Pei-Pei Zhang, Li-Rong Zhao, Chengzhu Du, Wei-Hua Zong, Shandong Li (China, Mainland)

ORAL Session: TP2C
Antennas
Session Chairs: Qiang Cheng and Xiuping Li

16:00 - 16:30 Controlling the scattering features of electromagnetic waves by metasurfaces (invited)
Qiang Cheng (China, Mainland)

16:30 - 16:50 Design of Tri-band Antenna for WiMAX
Dong Nie, Xia Wang, Hong-Xing Zheng, Mengjun Wang, Er-ping Li (China, Mainland)

16:50 - 17:10 Design of Coaxial-Fed Slot-Loaded Dual-Band Microstrip Antenna
Xin-Yan Wang, Zhen-Bin Gao, Hong-Xing Zheng, Meng-Jun Wang, Er-ping Li (China, Mainland)

17:10 - 17:30 Triple-Band Triple-Mode Microstrip Endfire Antenna Based on Periodic Bowtie Dipoles
Zhiyuan Zeng, Wenquan Cao, Xinmeng Lv (China, Mainland)

17:30 - 17:50 A High Gain OAM Antenna Based on Splitting Spiral Phase Plate for C band
Ling Zhang, Hua Zhu, Xiuping Li (China, Mainland)
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Session Chairs: Quan Xue and Weibing Lu

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Quan Xue, Wuhan Liang, Shaowei Liao (Hong Kong)

14:00 - 14:20 Cluster-Based Analysis of Wideband Millimeter-Wave Channel for Corridor Environment
Peize Zhang, Hongbo Wang, Haiming Wang, Xiangqian Sun, Yu Zhou (China, Mainland)

14:20 - 14:40 Simulation and Analysis of UWB Propagation Characteristics in Indoor Complex Environments Based on TD-UTD
Zhipeng Chen, Yuanjian Liu, Shuangde Li, Zhong Sheng (China, Mainland)

14:40 - 15:00 Measurement and Simulation of Wideband Channel Characterization in the Underground Tunnel Environment
Shuangde Li, Yuanjian Liu, Leke Lin, Zhipeng Chen, Xiaojun Zhang, Xiang Zhu (China, Mainland)

15:00 - 15:20 Measurement-Based Vehicle Exterior Channel Characteristics in 45-GHz Band
Zhemin Shen, Haiming Wang, Chen Yu, Wei Hong (China, Mainland)

ORAL Session: TP2D
Antennas
Session Chairs: Y. Jay Guo and Zhipeng Zhou

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Pei-Yuan Qin, Y. Jay Guo, Lu-Yang Ji (Australia)

16:30 - 16:50 An Cassegrain Reflector Antenna with an Elliptic Beam of Large Axial Ration
Shanhong He, Xiaojia Lu, Wenkai Li, Chong Fan (China, Mainland)

16:50 - 17:10 A Wideband Planar Elliptical Dipole Antenna for Millimeter-Wave Silicon Applications
Jinping Zhang, Zhipeng Zhou (China, Mainland)

17:10 - 17:30 Bow-Tie Slot Antenna Based on Circular Substrate Integrated Waveguide Cavity
Shui Liu, Feng Xu, Lewei Cao, Ke Wu (China, Mainland)

17:30 - 17:50 A Planar Low Side-lobe Waveguide Slots Antenna Array
Qing Liang, Liangyang Zhang, Zhaoneng Jiang, Yekui Zhong, Han Wen, Fang Sun, Chao Mo (China, Mainland)
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Electromagnetics
Session Chairs: Satoshi Yagitani and Mingyao Xia

13:30 - 14:00 Field Distribution Measurement and Source Estimation Using Metamaterial Absorber (invited)
Satoshi Yagitani, Naoki Tonooka, Ryohei Kanaura, Mitsunori Ozaki, Tomohiko Imachi, Yoshiyuki Yoshimura, Hirokazu Sugiura (Japan)

14:00 - 14:20 Time-Domain Finite Difference Analysis of EMP Coupling to Double Wires
Zhongwei Yang, Feng Xu, Junlin Zhan, Ke Wu (China, Mainland)

14:20 - 14:40 Synthesizing Orbital Angular Momentum Beam with Small Divergence Angle
Yu Yao, Xianling Liang, Weiren Zhu, Junping Geng, Ronghong Jin (China, Mainland)

14:40 - 15:00 Electromagnetic Fields Induced by the Wake of a Moving Slender Body in Two-Layer Ocean of Infinite Depth
Zhihua Xu, Changping Du, Mingyao Xia (China, Mainland)

15:00 - 15:20 Enhancement of the Radar Cross Section Using Metasurfaces
Mohammed Kalaagi, Hussein Srour, Divitha Seetharamdoo (France)

ORAL Session: TP2E
Antennas
Session Chairs: Motoyuki Sato and Yue Li

16:00 - 16:30 Recent Research Activities on Ground Based Synthetic Aperture Radar (GB-SAR) (invited)
Motoyuki Sato, Lilong Zou, Kazutaka Kikuta, Amila Karunathilake, Wei Ke Feng (Japan)

16:30 - 16:50 Metamaterial-inspired Microstrip Antennas for Wireless Communication Systems
Wangyu Sun, Yue Li, Zhijun Zhang, Zhenghe Feng (China, Mainland)

16:50 - 17:10 A Compact Size Broadband Dipole Type Antenna
Wen-xin Yan, Jian-Ying Li, Du-Juan Wei (China, Mainland)

17:10 - 17:30 A Wideband Circularly-Polarized Crossed Dipole Antenna
Jie Ren, Xianling Liang, Junping Geng, Weiren Zhu, Ronghong Jin (China, Mainland)

17:30 - 17:50 Ultra-thin Wideband Antenna for 5G MIMO Application of Mobile Device
Daqing Liu, Ming Zhang, Huailin Wen, Jun Wang (China, Mainland)
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Session Chairs: Xiaodong Chen and Ikmo Park

13:30 - 14:00 A Wideband Dual-polarized Slot Antenna Array for High-gain Millimeter-wave Communications (invited)
Zhijiao Chen, Limei Qi, Xiaoming Liu, Yuan Yao, Junsheng Yu, Xiaodong Chen
(United Kingdom)

14:00 - 14:20 A Miniaturized Circular Polarized Yagi Antenna
Zhangmin Wu, Changzhou Hua, Yunlong Lu, Yan Ye, Xueqin Huang
(China, Mainland)

14:20 - 14:40 Vertically Integrated Circularly Polarized Filtering Antenna using Substrate Integrated waveguide Technology
W. He, Y.L. Lu, T.J. Liu, J.F. Huang
(China, Mainland)

14:40 - 15:00 Performance Analysis of SKA Dish
Shengwen Liu, Biao Du, Yang Wu, Guoxi Liu
(China, Mainland)

15:00 - 15:20 A Substrate Integrated Magneto-Electric Dipole Antenna Using Metasurface for 2G/3G/LTE/5G Applications
Jiexin Lai, Botao Feng, Qingsheng Zeng, Kwok L. Chung
(China, Mainland)

ORAL Session: TP2F
Antennas
Session Chairs: Jin Shi and Mang He

16:00 - 16:30 Antenna with enhanced bandwidth and filtering response (invited)
Jin Shi
(China, Mainland)

16:30 - 16:50 Design of a dual-band conformal antenna on a cone surface for missle-borne
Changling Chen, Huili Zheng
(China, Mainland)

16:50 - 17:10 Single-layer Proximity-fed Square Ring Antenna with a Small Frequency-Ratio for Dual-band GNSS Applications
Jia-yi Ren, Hu Yang
(China, Mainland)

17:10 - 17:30 A Wideband and Low-Unroundness Printed Conical Equiangular-Spiral Antenna
Chunbo Wu, Mang He, Chuanfang Zhang
(China, Mainland)

17:30 - 17:50 A Three-Element Dual-Polarized Antenna Array with Beamwidth Reconfiguration
Yating Tu, Botao Feng, Mengyu Wang, Xiaoyuan He, Qingsheng Zeng
(China, Mainland)
13:30 - 13:50 Study on a Co-simulation Scheme for the EMI Effects Analysis of Transmission Line Network (invited)
    Jian Wang, Jun Luo (China, Mainland)

13:50 - 14:10 Numerical Computation of Large-scale Distributed Grounding System in Complex Soil Structure (invited)
    Bo Zhang (China, Mainland)

14:10 - 14:30 Multiband and Tuneable Antenna with WuRx Design by FDTD Method for Device with Human Body
    Wen-Cheng Lai (Taiwan)

14:30 - 14:50 Triple-band Wide-angle Ultrathin metamaterial absorber
    Yao Ma, Jun Liu, Liyuan Su, Feng Lu (China, Mainland)

14:50 - 15:10 Three-dimensional co-polarization reflection metamaterial
    Qiqi Zheng, Yongfeng Li, Jiafu Wang, Yang Shen, Shaobo Qu, Jieqiu Zhang (China, Mainland)
ORAL Session: TP1H (Joint Session)
Computational Electromagnetics & Multiphysics & Wireless Communication EMC
Session Chairs: Guangyu Zhang and Sherman S. Chen

13:30 - 13:50 Exposure protection to electric and magnetic fields from vehicle: a review (invited)
Guangyu Zhang (China, Mainland)

13:50 - 14:10 Derive Crosstalk Limit From ICN (invited)
Sherman S. Chen, Doron Lapidot (China, Mainland)

14:10 - 14:30 A Band-Limited CPWL-based Memory Polynomial Model for Digital Predistortion
Yang Li, Jianfeng Zhai, Chao Yu, Zhengbo Jiang, Lei Zhang (China, Mainland)

14:30 - 14:50 The Characteristic Research of Electromagnetic Field Distribution Within The Building
Zhihong Ye, Yang Wang, Yu Shao (China, Mainland)

14:50 - 15:10 Simulation on Microwave Multimode Cavity Heating with a Rotating Metal Block
Qian Meng, Youqi Deng, Yuanyuan Wu (China, Mainland)
陕西宾馆平面示意图 (Shaanxi Guesthouse)

18 号楼
Building No. 18

陕西大会堂
(Conference Venue)
The Great Hall of Shaanxi

12 号楼
Building No. 12
Floor Plan of Shaanxi Gnesthonse (Negative 1st Floor)
陕西大会堂平面图（二层）
Floor Plan of Shaanxi Gnesthonse (2nd Floor)
Room O
3-5会议室  3-5 Conference Room
Opening Ceremony
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