

## 해외석학 초청강연

일시 2026년 2월 4일(수)~6일(금)

장소 모나 용평 타워콘도 1층 사파이어

## 프로그램

시간	발표주제	발표자(소속)
2월 4일(수)		
13:00~14:20	Generative AI-Enhanced Wireless Systems: Bridging Data-Driven Intelligence and Physical Models	Prof. Angela Yingjun Zhang (The Chinese University of Hong Kong)
2월 5일(목)		
09:50~11:00	Generalized Pinching-Antenna Systems: A New Paradigm for Wireless Transceiver Designs / IEEE JSAC: Opportunities for Korean Scholars	Prof. Zhiguo Ding (Nanyang Technological University (Singapore))
2월 6일(금)		
10:00~11:20	Stacked Intelligent Metasurfaces – Communication, sensing and computation in the wave domain	Prof. Marco Di Renzo (Université Paris-Saclay & CNRS, King's College London)

## 강연소개



## Generative AI-Enhanced Wireless Systems: Bridging Data-Driven Intelligence and Physical Models

Prof. Angela Yingjun Zhang

The Chinese University of Hong Kong

IEEE Fellow

Angela Yingjun Zhang is currently a Professor at Department of Information Engineering, the Chinese University of Hong Kong. She is a Fellow of The Institute of Electrical and Electronics Engineers (IEEE), The Institution of Engineering and Technology (IET), and Hong Kong Institution of Engineering (HKIE).

Prof. Zhang has served as a Member-at-Large of IEEE Communications Society Board of Governors, the Editor-in-Chief of IEEE Open Journal of the Communications Society, the Chair of the Executive Editor Committee of IEEE Transactions on Wireless Communications, a IEEE Communications Society Fellow Evaluation Standing Committee member, the Founding Chair of IEEE ComSoc Technical Committee of Smart Grid Communications, among others.

She is a co-recipient of 2021 and 2014 IEEE Comsoc Asia Pacific Outstanding Paper Awards, 2013 IEEE SmartGridComm Best Paper Award, 2011 IEEE Marconi Prize Paper Award on Wireless Communications, and a recipient of 2011 Young Researcher Award of The Chinese University of Hong Kong. As the only winner from Engineering Science, she won the Hong Kong Young Scientist Award 2006, conferred by the Hong Kong Institution of Science.

This talk explores the convergence of artificial intelligence and wireless system design. We show how AI-driven statistical approaches can be seamlessly incorporated into traditional wireless system architectures, bridging the gap between data-driven approaches and conventional communication theory. As a concrete example, we discuss how score-based generative models (i.e., diffusion models) can be leveraged to solve inverse problems arising from communication systems. When combined with message passing algorithms, we show that distributional information estimated by score-based networks can significantly enhance iterative decoding and estimation performance.



## Generalized Pinching-Antenna Systems: A New Paradigm for Wireless Transceiver Designs / IEEE JSAC: Opportunities for Korean Scholars

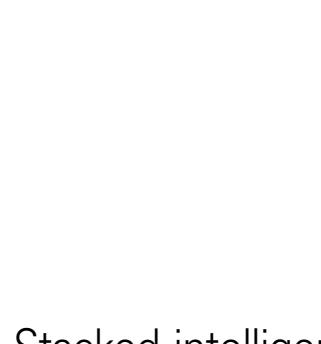
Prof. Zhiguo Ding

Nanyang Technological University (Singapore)

IEEE Fellow / IEEE JSAC (Journal on Selected Areas in Communications) Editor in Chief

Zhiguo Ding is currently a Professor in Communications at Nanyang Technological University and an Academic Visitor at Princeton University. His research interests are 6G networks, communications and signal processing. His h-index is over 100 and his work receives 70,000+ Google citations. He is serving as the EiC of IEEE JSAC, an Area Editor for the IEEE TWC and OJSP, an Editor for IEEE TVT, and OJ-SP, and was an Area Editor for IEEE TCOM and OJCOMS, an Editor for IEEE TCOM, TWC, COMST, WCL, CL and WCMC. He received the best paper award of IET ICWMC-2009 and IEEE WCSP-2014, the EU Marie Curie Fellowship 2012-2014, the Top IEEE TVT Editor 2017, IEEE Heinrich Hertz Award 2018, IEEE Jack Neubauer Memorial Award 2018, IEEE Best Signal Processing Letter Award 2018, Alexander von Humboldt Foundation Friedrich Wilhelm Bessel Research Award 2020, IEEE SPCC Technical Recognition Award 2021, IEEE VTS Best Magazine Paper Award 2023, and the Best Paper Award in IEEE GLOBCOM 2024. He is a Web of Science Highly Cited Researcher in two disciplines (2019-2025), and a Fellow of the IEEE.

Next-generation wireless networks face challenges from massive connectivity, diverse traffic, ultra-high bandwidth, and ultra-low latency demands. Flexible-antenna systems are key to 6G, as they can adapt channel gains to boost data transmission. However, current systems mainly address NLoS fading and lack LoS reconstruction and structural flexibility. This talk introduces generalized pinching-antenna systems, explaining their principles, 6G applications, and future research on deployment and channel estimation.



## Stacked Intelligent Metasurfaces – Communication, sensing and computation in the wave domain

Prof. Marco Di Renzo

CNRS Research Director(Professor) / Professor of Telecommunications Engineering

Université Paris-Saclay &amp; CNRS (France) / King's College London (United Kingdom)

IEEE Fellow

Marco Di Renzo received the Laurea (cum laude) and Ph.D. degrees in electrical engineering from the University of L'Aquila, Italy, in 2003 and 2007, respectively, and the Habilitation à Diriger des Recherches (Doctor of Science) degree from University Paris-Sud (currently Paris-Saclay University), France, in 2013. Currently, he is a CNRS Research Director (Professor) and the Head of the Intelligent Physical Communications group with the Laboratory of Signals and Systems (L2S) at CNRS & CentraleSupélec, Paris-Saclay University, Paris, France. Also, he is Chair Professor in Telecommunications Engineering, the Director of the Centre for Telecommunications Research, and the Head of the Telecommunications Group, Department of Engineering, King's College London, London, United Kingdom. He was a France-Nokia Chair of Excellence in ICT at the University of Oulu (Finland), a Tan Chin Tuan Exchange Fellow in Engineering at Nanyang Technological University (Singapore), a Fulbright Fellow at The City University of New York (USA), a Nokia Foundation Visiting Professor at Aalto University (Finland), and a Royal Academy of Engineering Distinguished Visiting Fellow at Queen's University Belfast (U.K.). He is a Fellow of the IEEE, IET, EURASIP, and AIAA; an Academician of AIAA; an Ordinary Member of the European Academy of Sciences and Arts, an Ordinary Member of the Academia Europaea, and Ordinary Member of the Italian Academy of Technology and Engineering; an Ambassador of the European Association on Antennas and Propagation; and a Highly Cited Researcher. His recent research awards include the Michel Monpetit Prize conferred by the French Academy of Sciences, the IEEE Communications Society Heinrich Hertz Award, and the IEEE Communications Society Marconi Prize Paper Award in Wireless Communications. He served as the Editor-in-Chief of IEEE Communications Letters from 2019 to 2023. Currently, he is a Voting Member of the Fellow Evaluation Standing Committee, the Chair of the Publications Misconduct Ad Hoc Committee, and the Director of Journals of the IEEE Communications Society. Also, he is on the Editorial Board of the Proceedings of the IEEE.

Stacked intelligent metasurface (SIM) is an emerging technology that capitalizes on reconfigurable metasurfaces. SIM is an enabler for efficient communication, sensing and computation in the wave domain. In this talk, we introduce SIM and its applications in wireless communications, with a focus on its potential to implement physical neural networks.