**Artificial Intelligence Enabled Wireless Propagation Channel Modeling in 6G**

The research of electromagnetic space is an important basic field of next-generation advanced information technology, which is related to technological progress and economic development. In wireless communication, radio wave propagation in electromagnetic space is the cornerstone of algorithm research, system design, and performance evaluation. The cross-integration of existing and emerging technologies represented by artificial intelligence (AI) provides a new driving force for the intelligent development of radio wave propagation. In channel feature extraction, the AI-based method can obtain more accurate channel parameters with fewer iterations, and it shows great flexibility in the application of target recognition. For environment awareness, the recognition algorithm based on neural networks can obtain accurate scene recognition results in time-varying channels, which is also conducive to realizing high-precision positioning. In channel modeling, the AI-based model can use richer environmental characteristics as input to reveal the potential mapping relationship between channel characteristics and the physical propagation environment.

**Bio:**

Prof. Bo Ai is now working as a full Professor and Ph.D. supervisor at Beijing Jiaotong University, where he is a deputy director of State Key Lab. of Rail Traffic Control and Safety, and a deputy director of Research Institute of Modern Telecommunications. He is one of the main responsible people for Beijing "Urban rail operation control system" International Science and Technology Cooperation Base, and the backbone member of the Innovative Engineering Based jointly granted by Chinese Ministry of Education and the State Administration of Foreign Experts Affairs. He was a visiting professor at EE department, Standard University during March and September, 2015. During his visiting period, he has been invited by Stanford International Developing Center, UC Berkeley, University of South California, Harvard, University of Maryland, Georgia Tech. for academic presentations. He has authored 6 books and published over 300 scientific research papers in his research area. He has hold 26 invention patents. He is serving as an associate editor for IEEE transactions on Consumer Electronics and an editorial member of Wireless Personal Communications. He has been notified by Council of Canadian Academies (CCA) that, based on Scopus database, Prof. Ai Bo has been listed as one of the Top 1% authors in his field all over the world. Prof. Ai Bo has also been Feature Interviewed by IET electronics Letters. Recently, he has coauthored a book with European Union and North American scholars invited by Wiley John & Sons for a 5G book: Fundamentals for 5G Mobile Networks. Prof. Bo Ai was elected as IEEE fellow for contributions to channel modeling and wireless communications in high-speed railways.