Dr. Xidong Mu
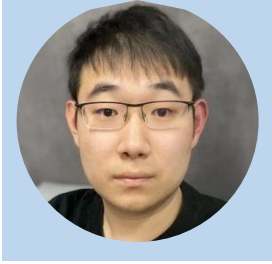
Queen Mary University of London, London, UK

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Xidong Mu received the Ph.D. degree in Information and Communication Engineering from the Beijing University of Posts and Telecommunications (BUPT), Beijing, China, in 2022. He is currently a Postdoctoral Researcher with the School of Electronic Engineering and Computer Science, Queen Mary University of London, U.K. His research interests include non-orthogonal multiple access, IRSs/RISs aided communications, integrated sensing and communications, and optimization theory. He serves the Conference Symposium and Workshop Officer for IEEE ComSoc Next Generation Multiple Access Emerging Technology Initiative (NGMA-ETI). He received the Exemplary Reviewer Certificate of the IEEE Transactions on Communications in 2020, the VTC-2022 Fall Best Student Paper Award, and the ISWCS 2022 Best Paper Award.

Speech Title:
Beamforming Design for STAR-RISs: From Independent to Coupled Phase Shifts

Abstract: Simultaneously transmitting and reflecting (STAR) reconfigurable intelligent surfaces (RISs) have emerged as promising techniques for the sixth-generation (6G) wireless networks. The wireless signal incident upon STAR-RISs is divided into transmitted and reflected signals passing into both sides of the space surrounding the surface, thus facilitating a 360° coverage. In this talk, the basic signal model of STAR-RISs will be first introduced. Then, the beamforming design of STAR-RISs will be discussed from independent to coupled phase-shift model. Finally, research opportunities of STAR-RISs will be discussed.