Full Name (English): Keyi Wang

Affiliated Institution and Title (English):

Xidian University, PhD student



**Biography** 

(Please provide in paragraph form within 500 words.)

Keyi Wang was born in Henan, China, in 1998. She received the B.S. degree in electronic information science and technology from Shaanxi Normal University, Xi'an, China, in 2019. She is currently pursuing the Ph.D. degree with the National Key Laboratory of Radar Signal Processing, Xidian University, Xi'an.

Her research interests include clutter suppression and high-resolution SAR imaging of frequency diverse array (FDA) radar. She has published 4 SCI papers in journals including IEEE TGRS, TAES, and SP. She received the Best Presentation Award at ICICSP 2022 and the Outstanding Presentation Award at the National Doctoral Forum of Information and Communication Engineering 2023. She has been served as the reviewer of IEEE journals including TAES, TVT, GRSL, and WCL.

Speech Title (English):

Moving Target Detection and Multi-Resolution Imaging Method of Frequency Diverse Array

Speech Abstract

(Please provide in paragraph form within 500 words.)

By introducing a small frequency increment among different array elements, the frequency diverse array (FDA) can form a range/time-angle-dependent transmit beampattern. New information and controllable degrees of freedom with FDA can be obtained through reasonable signal processing methods. This talk focuses on the moving target detection and high-resolution imaging method of FDA radar. The application of FDA in the case of multi-scale moving target detection is introduced, which utilizes the transmit spatial data to serve as the training samples and suppress the non-homogenous clutter. Through the flexible frequency band regulation characteristic of FDA, a general bandwidth synthesis approach is introduced, which provides theoretical potential for the multi-resolution SAR imaging.