Full Name (English):	Assoc. Prof. Yifei Ji	Recent Photo 
Affiliated Institution and Title (English):	National University of Defense Technology, China	

Biography:

Yifei Ji received the B.S. degree in electronic information engineering from Nanjing University of Science and Technology, Nanjing, in 2014, and the M.S and Ph.D. degrees in information and communication engineering from National University of Defense Technology (NUDT), Changsha, in 2016 and 2020, respectively. Dr. Ji is currently an Associate Professor with the College of Electronic Science and Technology of NUDT. He was a recipient of the Excellent Doctorate Thesis of China Education Society of Electronics (CESE) in 2021 and of NUDT in 2022, respectively, and of the Excellent Master Thesis of Hunan Province in 2019, and of the Excellent Academic Report of Doctor Forum and the Rising Star of Radar granted by the Journal of Radars. He was also selected for the Postdoctoral Innovative Talent Support Program. His research fields of interest include radar signal processing, synthetic aperture radar and ionospheric impacts.

Speech Title:
Probing and Measuring Equatorial Plasma Bubbles via Spaceborne Synthetic Aperture Radar

Speech Abstract:

The ionospheric scintillation effect can easily cause degradation of imaging and interferometric performance in low-frequency spaceborne SAR. Two products have been presented in L-band spaceborne SAR images: azimuth defocusing and amplitude scintillation stripes. The phenomenon of amplitude scintillation stripes is frequently captured in the equatorial midnight images of the L-band ALOS PALSAR, which provides possibilities for probing and measuring equatorial plasma bubbles (EPB). A methodology for measuring ionospheric scintillation based on PALSAR images suffering amplitude scintillation stripes is proposed and validated using two sets of PALSAR images. The effectiveness is not only validated through the data itself, but also by external GPS measurement. The experimental results show that this methodology has higher spatial resolution, accuracy, and robustness compared to existing GPS measurement methods.