Full Name (English):	Jian Wu	
Affiliated Institution and Title (English):	National University of Defense Technology, China Associate Professor	

Biography
(Please provide in paragraph form within 500 words.)

Jian Wu received the B.S. degree in Information Engineering, M.E. degree in Photogrammetry and Remote Sensing, and Ph.D degree in Information and Communication Engineering from the National University of Defense Technology (NUDT), Changsha, China, in 2012, 2014 and 2019, respectively. He is currently an Associate Professor with the College of Electronic Science and Technology, NUDT. His current research interests include GNSS signal processing, interference suppression technology, and high precision GNSS signal generation. He received the Best Paper Award in the 11th China Satellite Navigation Conference, CSNC 2020. He served as Session Chair for the 6th 2023 International Conference on Information Communication and Signal Processing (ICICSP 2023) and for the 8th 2023 International Conference on Signal and Image Processing (ICSIP 2023).

Speech Title (English):

Blind Adaptive Beamforming for a Global Navigation Satellite System Array Receiver

Speech Abstract
(Please provide in paragraph form within 500 words.)

The adaptive beamforming algorithm can realize interference suppression and navigation signal enhancement, and has been widely used. However, achieving high-precision real-time estimation of the direction of arrival (DOA) parameters of navigation signals in strong-interference scenarios with low complexity is still a challenge. In this paper, a blind adaptive beamforming algorithm for a Global Navigation Satellite System (GNSS) array receiver based on direction lock loop is pro-posed without using the prior information of the DOA parameter. The direction lock loop is used for DOA tracking and estimation after interference suppression, which uses the spatial correlation of the array beam pattern to construct a closed direction-tracking loop. The DOA estimation value is adjusted in real time based on the loop errors. A blind beamformer is constructed using the DOA estimation results to provide gain by forming a beam in the satellite direction. This method improves the accuracy and dynamic adaptability of DOA estimation while significantly reducing the computational complexity.