

Invited Talk:

Recent Advances in Signal Design for Integrated Sensing & Communications

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Abstract. Integrated Sensing and Communication (ISAC) combines sensing and communication systems to utilize wireless resources efficiently, realize wide area environment sensing, and even to pursue mutual benefits. It is anticipated that ISAC would be one of the key enablers of 5G Advanced (5GA) and 6G wireless networks for supporting a variety of emerging applications. Obviously, transmitting signal design plays an essential role in ISAC systems. This talk shall provide recent advances in ISAC signal designs, including coordinated signal design, communications signal-based design, radar signal-based design, and dedicated dual-function signal design. In particular, a new concept called low ambiguity zone (LAZ) and some theoretical bounds, as well as related LAZ signal designs, shall be presented.