

Call for Papers
IEEE Signal Processing Society
IEEE Journal of Selected Topics in Signal Processing

Special Issue on MIMO Radar and Its Applications

MIMO (multiple-input and multiple-output) radar has been receiving increasing attention in recent years from researchers, practitioners, and funding agencies. MIMO radar is characterized by using multiple transmitting antennas to simultaneously transmit multiple (possibly linearly independent) waveforms and using multiple receiving antennas to receive the reflected signals. Like MIMO communications, MIMO radar offers a new paradigm for signal processing research. MIMO radar possesses significant potentials for fading mitigation, resolution enhancement, and interference and jamming suppression. Fully exploiting these potentials can result in much improved target detection and recognition performance.

The objective of this special issue is to introduce recent developments on MIMO radar, to stimulate new concepts, theories, and applications on the topic, and to foster further crossfertilization of ideas with MIMO communications.

Original papers, previously unpublished and not currently under review by another journal, are solicited for this special issue. The scope of this special issue includes, but is not limited to:

- Adaptive MIMO radar.
- Beampattern analysis and optimization for MIMO radar.
- Distributed MIMO radar.
- Hardware design/calibration.
- MIMO radar applications in biomedical engineering and other fields.
- MIMO radar for target detection, parameter estimation, tracking, association, and recognition.
- MIMO radar prototypes and measurements.
- Space-time codes for MIMO radar.
- Statistical MIMO radar.
- Waveform design for MIMO radar.

Submission information is available at <http://www.ece.byu.edu/jstsp>. Prospective authors are required to follow the Author's Guide for manuscript preparation of the IEEE Transactions on Signal Processing at <http://ewh.ieee.org/soc/sps/tsp>. Manuscripts will be peer reviewed according to the standard IEEE process.

Manuscript submission due: **Jan. 20, 2009**
First review completed: Apr. 1, 2009
Revised manuscript due: Jun. 1, 2009
Second review completed: Aug. 1, 2009
Final manuscript due: Sept. 1, 2009

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