

Call for Papers

IEEE Transactions on Aerospace and Electronic Systems **Special Section on Compressed Sensing Applied to Radar**

Compressed Sensing meets Radar

Compressed Sensing (CS) techniques represents a mathematical framework for the detection and allocation of sparse signals with a reduction of the actually required number of sensors. Nowadays modern radar systems use high bandwidth, which is linked to high sample rates to fulfil the Shannon-Nyquist theorem condition, and a large number of single elements for phased-array antennas. Often only a small amount of target parameters are of interest, which raises the question of whether CS is not a good way to reduce data size, complexity, weight, power consumption, and cost of radar systems. The number of publications for compressed sensing applied to radar is still very limited, so that there are still a number of questions unanswered.

The scope of this Special Section is to provide a platform for experts working in the area of Compressed Sensing and Radar.

Key aspects

The topics of interest include (but are not limited to):

• CS for pulse compression, • CS for synthetic aperture radar (SAR), • CS for SAR tomography, • CS for active and passive airspace surveillance, • CS for moving target detection, • CS for radar clutter suppression, • CS for MIMO architectures, • Hardware aspects of CS, • CS for radiometry and sonar, • Mathematical aspects of CS in radar, • CS in statistical signal processing

Prospective authors should visit http://taes.msubmit.net/cgi-bin/main.plex?form_type=do_cat&file_nm=info.htm for information on paper submission and for additional information. Manuscripts should be submitted using the IEEE Transactions on Aerospace and Electronic Systems at <http://taes.msubmit.net>. Manuscripts will be peer reviewed according to the standard IEEE AES process.

Important Dates:

Manuscript submission due:	31 July 2012
First review completed:	31 October 2012
Revised manuscript due:	30 November 2012
Second review completed:	28 February 2013
Final manuscript due:	30 April 2013

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