

Radar/SAR awaits Compressive Sensing

Compressive sensing (CS) techniques offer a framework for the detection and allocation of sparse signals with a reduced number of samples. Today, modern radar systems operate with high bandwidths - demanding high sample rates according to the Shannon-Nyquist theorem - and a huge number of single elements for phased array antennas. Often only a small amount of target parameters is the final output, raising the question, whether CS could be a good means to reduce data size, complexity, weight, power consumption and costs of radar systems.

Scope

The intention of this International Workshop is to bring experts of Compressive Sensing together to explore the state-of-the-art in development of such techniques in the different nations and for the different applications and to turn out its advantages or possible drawbacks compared to classical solutions. The workshop program includes invited presentations from leading experts as well as contributed talks.

Organized by

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Keynote Speakers

- Yonina Eldar, Technion Israel Institute of Technology, Israel
- Marco Duarte, University of Massachusetts, USA
- Justin Romberg, Georgia Institute of Technology, USA

Key aspects

Contributions from: • CS Theory and Signal Processing, • CS for synthetic aperture radar (SAR) and SAR tomography, • CS for ISAR and (G)MTI, • CS for radar clutter suppression, • CS for MIMO architectures, • CS for acoustic and sonar,

Participants

This workshop provides a international forum for experts, research engineers, and scientists working in the area of Compressive Sensing and Radar/SAR. They get insight into the current research trends, innovative sensor technology, associated signal processing, and the subsequent data processing and transmission steps.

Location & Venue

The convention center (Universitätsclub Bonn) is located near the University (Konviktstr. 9, 53113 Bonn, Germany) in a nice park area.

A history of more than 2000 years has given Bonn many various facets. Historical sights can be spotted throughout the city. The flair of international life and picturesque impressions along the romantic Rhine are waiting to be discovered.

More Information

Visit our website <u>http://workshops.fhr.fraunhofer.de/cosera</u> or send an e-mail to <u>matthias.weiss@fhr.fraunhofer.de</u>.



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