

Accepted Manuscript

Sparsity-Aware Transmit Beam-space Design for FDA-MIMO Radar

Pengcheng Gong, Wen-Qin Wang, Fengcong Li, Hing Cheung So

PII: S0165-1684(17)30369-9
DOI: [10.1016/j.sigpro.2017.10.008](https://doi.org/10.1016/j.sigpro.2017.10.008)
Reference: SIGPRO 6629

To appear in: *Signal Processing*

Received date: 26 July 2017
Revised date: 19 September 2017
Accepted date: 4 October 2017

Please cite this article as: Pengcheng Gong, Wen-Qin Wang, Fengcong Li, Hing Cheung So, Sparsity-Aware Transmit Beam-space Design for FDA-MIMO Radar, *Signal Processing* (2017), doi: [10.1016/j.sigpro.2017.10.008](https://doi.org/10.1016/j.sigpro.2017.10.008)



This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Highlights

- We devise an FDA and MIMO hybrid radar to jointly estimate the ranges and angles of multiple targets via optimal transmit beamspace design.
- A uniform elemental power constraint is adopted as the optimization criterion to minimize the mutual coherence of the sensing matrix using a sparse model.
- We exploit cyclic optimization and power method-like approaches to tackle the problem.
- We employ different methods to evaluate the performance for range, angle and amplitude estimation.

Download English Version:

<https://daneshyari.com/en/article/4977350>

Download Persian Version:

<https://daneshyari.com/article/4977350>

[Daneshyari.com](https://daneshyari.com)