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Journal Articles – 2015

- [1] E. BouDaher, F. Ahmad, and M.G. Amin, "Sparsity-based direction finding of coherent and uncorrelated targets using active nonuniform arrays," <u>IEEE Signal Processing Letters</u>, vol. 22, no. 10, pp. 1628-1632, October 2015.
- [2] Q. Shen, W. Liu, W. Cui, S. Wu, Y. D. Zhang, and **M. Amin**, "Low-complexity wideband direction-ofarrival estimation based on co-prime arrays," <u>IEEE Transactions on Audio, Speech and Language</u> <u>Processing</u>, vol. 23, pp. 1445-1456, September. 2015.
- [3] Z. Yang, M. Xing, Y. D. Zhang, G. Sun, and Z. Bao, "Factorised polar-format back-projection algorithm," <u>IET Radar, Sonar, and Navigation</u>, vol. 9, no. 7, pp. 875-880, Aug. 2015.
- [4] E. BouDaher, Y. Jia, F. Ahmad, and M. G. Amin, "Multi-frequency co-prime arrays for high-resolution direction-of-arrival estimation," <u>IEEE Transactions on Signal Processing</u>, vol. 63, no.14, pp.3797-3808, July 2015.
- [5] Q. Wu, Y. D. Zhang, F. Ahmad, and M. Amin, "Compressive sensing based high-resolution polarimetric through-the-wall radar imaging exploiting target characteristics," <u>IEEE Antennas and Wireless Propagation Letters</u>, vol. 14, pp. 1043-1047, 2015.
- [6] G. Gennarelli, G. Vivone, P. Braca, F. Soldovieri, **M. Amin**, "Multiple extended target tracking for through wall radars, <u>IEEE Transactions on GeoScience and Remote Sensing</u>, vol. PP, no. 99, pp. 1-13, June 2015
- [7] W. Zhang and A. Hoorfar," A generalized approach for SAR and MIMO radar imaging of building interior targets with compressive sensing", <u>IEEE Antennas and Wireless Propagation Letters</u>, vol.14, May 2015.
- [8] Q. Wu, Y. D. Zhang, F. Ahmad, and M. G. Amin, "Compressive sensing based high-resolution polarimetric through-the-wall radar imaging exploiting target characteristics," <u>IEEE Antennas and Wireless Propagation Letters</u>, vol. 14, May 2015.
- [9] Q. Wu, Y. D. Zhang, M. G. Amin, B. Himed, "Multi-Task Bayesian compressive sensing exploiting intratask dependency," <u>IEEE Signal Processing Letters</u>, vol. 22, no. 4, April 2015.
- [10] F. H. Tivive, A. Bouzerdoum, and M. G. Amin, "Subspace projection approach for wall-clutter mitigation in through-the-wall radar imaging," <u>IEEE Trans. on GeoScience and Remote Sensing</u>, vol. 53 no. 4, April 2015.
- [11] C. Liu, F. Xi, S. Chen, Y. D. Zhang, and Z. Liu, "Pulse-Doppler signal processing with quadrature compressive sampling," <u>IEEE Transactions on Aerospace and Electronic Systems</u>, vol. 51, no. 2, April 2015.
- [12] E. BouDaher and A. Hoorfar, "Electromagnetic optimization using mixed-parameter and multiobjective covariance matrix adaptation evolution strategy," IEEE Transactions on Antennas and Propagation, vol. 63, April 2015.
- [13] R. M. Wynne and B. Barabadi, "Gas-filling dynamics of a hollow-core photonic bandgap fiber for nonvacuum conditions," <u>IEEE/OSA Applied Optics</u>, vol.54, no. 7, March 2015.
- [14] S. Qin, Y. D. Zhang, and M. G. Amin, "Generalized coprime array configurations for direction-of-arrival estimation," <u>IEEE Transactions on Signal Processing</u>, vol. 63, no. 6, pp. 1377-1390, March 2015.

- [15] F. Ahmad, J. Qian, and M. G. Amin, "Wall clutter mitigation using discrete prolate spheroidal sequences for sparse reconstruction of indoor stationary scenes," <u>IEEE Transactions on Geoscience and Remote</u> <u>Sensing</u>, vol. 53, no. 3, March 2015.
- [16] G. Gennarelli, M. G. Amin, F. Soldovieri, and R. Solimene, "Passive multi-array image fusion for RF tomography by opportunistic sources," <u>IEEE Geoscience and Remote Sensing Letters</u>, vol. 12, March 2015.
- [17] B. Jokanovic, M. G. Amin, Y. D. Zhang, and F. Ahmad, "Multi-window time-frequency signal reconstruction from undersampled continuous wave radar measurements for fall detection," <u>IET Radar,</u> <u>Sonar & Navigation</u>, vol. 9, no. 2, pp. 173-183, February 2015.
- [18] Q. Wu, Y. D. Zhang, W. Tao, and M. G. Amin, "Radar-based fall detection based on Doppler time-frequency signatures for assisted living," <u>IET Radar, Sonar and Navigation</u>, vol. 9, no. 2, pp. 173-183, February 2015.
- [19] X. Li, G. Sun, Y. D. Zhang, M. Xing, Y. Liang, and Z. Bao, "Spectrum compression space-time adaptive processing for TOPS SAR system," <u>IEEE Geoscience and Remote Sensing Letters</u>, vol. 12, no. 2, pp. 434-438, February 2015.
- [20] S. Qin, Y. D. Zhang, Q. Wu, and M. G. Amin, "Structure-Aware Bayesian compressive sensing for nearfield source localization based on sensor-angle distributions," <u>International Journal of Antennas and</u> <u>Propagation</u>, vol. 2015, Article ID 783467, 2015.
- [21] A.H. Muqaibel, M.G. Amin, and F. Ahmad, "Target localization with a single antenna via directional multipath," <u>International Journal of Antennas and Propagation</u>, vol. 2015, Article ID 510720, 2015.