

LISTĂ DE LUCRĂRI

ISI

- [1] **A. Focsa**, A. Anghel, M. Datcu and S. -A. Toma, "Mixed Compressive Sensing Back-Projection for SAR Focusing on Geocoded Grid," in *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing*, vol. 14, pp. 4298-4309, 2021, doi: 10.1109/JSTARS.2021.3072208.
- [2] **A. Focsa**, A. Anghel and M. Datcu, "A Compressive-Sensing Approach for Opportunistic Bistatic SAR Imaging Enhancement by Harnessing Sparse Multiaperture Data," in *IEEE Transactions on Geoscience and Remote Sensing*, vol. 60, pp. 1-14, 2022, Art no. 5205914, doi: 10.1109/TGRS.2021.3071861.
- [3] **A. Focsa**, A. Anghel and M. Datcu, "Accelerated Back-Projection SAR Processor on Arbitrary Elliptical Imaging Grid With Azimuth Spectrum Unfolding," in *IEEE Geoscience and Remote Sensing Letters*, vol. 20, pp. 1-5, 2023, Art no. 4008005, doi: 10.1109/LGRS.2023.3298696
- [4] O. Ghozatlou, M. Datcu, **A. Focsa**, M. Heredia Conde and S. L. Ullo, "A Review and a Perspective of Deep Active Learning for Remote Sensing Image Analysis: Enhanced adaptation to user conjecture," in *IEEE Geoscience and Remote Sensing Magazine*, vol. 12, no. 3, pp. 125-148, Sept. 2024, doi: 10.1109/MGRS.2024.3403423
- [5] R. M. Asiyabi, M. Datcu, A. Anghel, **A. Focsa**, M. Martone, P. Rizzoli, E. Embembo "Complex-Valued Autoencoder-based Neural Data Compression for SAR Raw Data," in *IEEE Journal of Selected Topics in Signal Processing*, doi: 10.1109/JSTSP.2025.3558651.
- [6] Vizitiu, Alexandru Mădălin, Marius Alexandru Sandu, Lidia Dobrescu, **Adrian Focsa**, and Cristian Constantin Molder. "Comparative Approach to De-Noising TEMPEST Video Frames." *Sensors* 24, no. 19 (2024): 6292.
- [7] **A. Focsa**, S. -A. Toma, M. Coca, and A. Anghel "Through-the-wall SAR auto-focusing with low accuracy positioning system," in *IEEE ACCESS* (accepted for publication)
- [8] **A. Focsa**, S. -A. Toma and D. Gorgoteanu, "On the Interferometric Capabilities of the Pulson P440 UWB Radar," 2021 IEEE International Geoscience and Remote Sensing Symposium IGARSS, 2021, pp. 8201-8204, doi: 10.1109/IGARSS47720.2021.9553329.
- [9] **A. Focsa**, A. Anghel, Ș. -A. Toma and M. Datcu, "Synthetic Aperture Radar Focusing Based on Back-Projection and Compressive Sensing," *IGARSS 2020 - 2020 IEEE International Geoscience and Remote Sensing Symposium*, 2020, pp. 2376-2379, doi: 10.1109/IGARSS39084.2020.9323775.
- [10] **A. Focsa**, M. Datcu, S. -A. Toma, A. Anghel and R. Cacoveanu, "Opportunistic Bistatic SAR Image Classification Using Sub-aperture Decomposition," 2020 13th International Conference on Communications (COMM), 2020, pp. 203-207, doi: 10.1109/COMM48946.2020.9141953.
- [11] S. -A. Toma, B. Sebacher, D. Teleagă and **A. Focsa**, "Deformation Profile Analysis Using Uniform Manifold Approximation and Projection," *IGARSS 2020 - 2020 IEEE International Geoscience and Remote Sensing Symposium*, 2020, pp. 4227-4230, doi: 10.1109/IGARSS39084.2020.9323279.

- [12] **A. Focsa**, M. Datcu and A. Anghel, "Compressed sensing-based multi-aperture focusing of spaceborne transmitter/stationary receiver bistatic SAR data," 2020 IEEE Radar Conference (RadarConf20), 2020, pp. 1-4, doi: 10.1109/RadarConf2043947.2020.9266567.
- [13] **A. Focsa**, A. Anghel, and M. Datcu, "Inter-polarization Mapping via Gaussian Process Regression for Sentinel-1 EW Denoising," *accepted* for IGARSS 2022 - 2022 IEEE International Geoscience and Remote Sensing Symposium, 2022.
- [14] **A. Focsa**, Ș. -A. Toma and M. Datcu, "Maximum entropy image reconstruction applied to C-band ground based synthetic aperture radar," 2017 IEEE International Geoscience and Remote Sensing Symposium (IGARSS), Fort Worth, TX, USA, 2017, pp. 3437-3440, doi: 10.1109/IGARSS.2017.8127737.
- [15] **A. Focsa**, A. Vlădescu, Ș. -A. Toma, D. Gorgoteanu, A. Anghel and M. Coca, "Handheld Synthetic Aperture Radar for Through the Wall Imaging: Motion Errors Compensation," IGARSS 2023 - 2023 IEEE International Geoscience and Remote Sensing Symposium, Pasadena, CA, USA, 2023, pp. 2203-2206, doi: 10.1109/IGARSS52108.2023.10281951.
- [16] **A. Focsa**, A. Anghel and M. Datcu, "Elliptical grid generation for sped-up back-projection on bistatic SAR with ground based stationary receiver," IGARSS 2023 - 2023 IEEE International Geoscience and Remote Sensing Symposium, Pasadena, CA, USA, 2023, pp. 7832-7835, doi: 10.1109/IGARSS52108.2023.10282479.
- [17] **A. Focsa**, A. Anghel, G. Nico, J. Patruno and M. Datcu, "Large Scene Micro-Doppler Analysis on SAR Images," IGARSS 2024 - 2024 IEEE International Geoscience and Remote Sensing Symposium, Athens, Greece, 2024, pp. 11343-11346, doi: 10.1109/IGARSS53475.2024.10640574
- [18] Nico, G., Masci, O., **Focsa, A.**, Anghel, A., Patruno, J., Datcu, M., & Vacca, V. A. (2024, July). GBRAR Measurement of Vibration Frequencies: Synergy with Micro-Doppler Analysis of Spaceborne SAR Images. In IGARSS 2024-2024 IEEE International Geoscience and Remote Sensing Symposium (pp. 2349-2352), doi:10.1109/IGARSS53475.2024.10641129
- [19] Asiyabi, R. M., Anghel, A., **Focsa, A.**, Datcu, M., Martone, M., Rizzoli, P., & Imbembo, E. (2024, July). Adaptation of Decoded Sentinel-1 SAR Raw Data for the Assessment of Novel Data Compression Methods. In IGARSS 2024-2024 IEEE International Geoscience and Remote Sensing Symposium (pp. 2541-2545), doi:10.1109/IGARSS53475.2024.10642269
- [20] Ș. -A. Toma, S. Bogdan, **A. Focsa** and M. -L. Pura, "On Anomalous Deformation Profile Detection Through Supervised and Unsupervised Machine Learning," IGARSS 2019 - 2019 IEEE International Geoscience and Remote Sensing Symposium, Yokohama, Japan, 2019, pp. 7419-7422, doi: 10.1109/IGARSS.2019.8898459
- [21] **A. Focsa**, A. Anghel, G. Nico, J. Maggio, M. Datcu, and M. Corvino, "Vibration-Induced Micro-Doppler Estimation in Spaceborne SAR Images Using Doppler Centroid Tracking Across Azimuth Sub-apertures", IEEE Radar Conference, Atlanta, Georgia, USA, 2025

BDI

- [22] A.I. Mosoia, and **A. Focsa**, "A Novel Approach for Translational Motion Blur Estimation Based on Radon Transform" IEEE ICEMES 2025, Oradea, Romania

[23] **A. Focsa**, M. Coca, S. -A. Toma, A. Anghel, R. Cacoveanu and B. Sebacher, "THROUGH-THE-WALL SAR IMAGING BASED ON PULSON P440 OFF-THE-SHELF MODULE," EUSAR 2024; 15th European Conference on Synthetic Aperture Radar, Munich, Germany, 2024, pp. 566-570

[24] **A. Focsa**, S. -A. Toma, B. Sebacher, L. Grigore and M. Coca, "3D Localization Algorithms for Freehand Indoor SAR Focusing," 2024 15th International Conference on Communications (COMM), Bucharest, Romania, 2024, pp. 1-6, doi: 10.1109/COMM62355.2024.10741392

[25] Asiyabi, R. M., Anghel, **A., Focsa**, A., Datcu, M., Martone, M., Rizzoli, P., & Imbembo, E. (2024, April). On the use of JPEG2000 for SAR raw data compression. In EUSAR 2024; 15th European Conference on Synthetic Aperture Radar (pp. 249-253). VDE

Alte publicații

[26] Gioga, A., and **Focşa, A.** (2024). Impact of Regularization in Convolutional Neural Networks for Military Target Classification Using SAR Images. Journal of Military Technology Vol, 7(1).

Teza de doctorat

Adrian Focşa, "Advanced synthetic aperture radar computational imaging methods for monostatic and bistatic configurations"/" Metode avansate de imagistică radar cu apertură sintetică pentru configurații monostatice și bistatice", conducător științific prof. dr. ing. Habil. Mihai Datcu, susținută public în decembrie 2022 (confirmată prin OMEN 3773/03.03.2023).

Cărți publicate

[1] **A. Focşa**, Inteligență artificială: fundamente și abordări moderne Editura Academiei Tehnice Militare "Ferdinand I", București, 2025, ISBN 978-973-640-358-3

[2] Gorgoteanu D., **Focşa A.**, Nănău C., Popescu V., Circuite integrate digitale. Îndrumar de laborator. Editura Academiei Tehnice Militare "Ferdinand I", București, 2024, ISBN 978-973-640-350-7