

arXiv:1904.07572.

- [5] Katkovnik, V., & Stankovic, L. (1998). Instantaneous frequency estimation using the Wigner distribution with varying and data-driven window length. *IEEE Transactions on signal processing*, 46(9), 2315-2325.
- [6] Kwok, H. K., & Jones, D. L. (2000). Improved instantaneous frequency estimation using an adaptive short-time Fourier transform. *IEEE transactions on signal processing*, 48(10), 2964-2972..
- [7] Sejdic, E., Stankovic, L., Dakovic, M., & Jiang, J. (2008). Instantaneous Frequency Estimation Using the $\{\rm S\}$ -Transform. *IEEE signal processing letters*, 15, 309-312.
- [8] Almoosawy, A. N., Hussain, Z., & Murad, F. A. (2014). Frequency estimation of single-tone sinusoids under additive and phase noise.
- [9] Nielsen, J. K., Jensen, T. L., Jensen, J. R., Christensen, M. G., & Jensen, S. H. (2017). Fast fundamental frequency estimation: Making a statistically efficient estimator computationally efficient. *Signal Processing*, 135, 188-197.
- [10] Chen, Q., Li, Y., & Zhu, M. (2017, May). Fast algorithm for parameter estimation of LFM signals under low SNR. In *AIP Conference Proceedings* (Vol. 1839, No. 1, p. 020211). AIP Publishing LLC.
- [11] Intyas, I., Hasanah, R., Hidayat, M. R., Hasanah, B., Suskmono, A. B., & Munir, A. (2015, August). Improvement of radar performance using LFM pulse compression technique. In *2015 International Conference on Electrical Engineering and Informatics (ICEEI)* (pp. 302-307). IEEE
- [12] Egea Gómez, S. (2015). Investigation in pulse compression techniques for radar systems.
- [13] Parwana, S., & Kumar, S. (2015). Analysis of LFM and NLFM radar waveforms and their performance analysis. *Int. Res. J. Eng. Tech.*
- [14] Milczarek, H., Leśnik, C., Djurović, I., & Kawalec, A. (2021). Estimating the Instantaneous Frequency of Linear and Nonlinear Frequency Modulated Radar Signals – A Comparative Study. *Sensors*, 21(8), 2840.
- [15] Dreifuerst, R. M., Heath, R. W., Kulkarni, M. N., & Charlie, J. (2020, May). Deep learning-based carrier frequency offset estimation with one-bit ADCs. In *2020 IEEE 21st International Workshop on Signal Processing Advances in Wireless Communications (SPAWC)* (pp. 1-5). IEEE.
- [16] Almayyali, H. R., & Hussain, Z. M. (2021). Deep learning versus spectral techniques for frequency estimation of single tones: Reduced complexity for software-defined radio and IoT sensor communications. *Sensors*, 21(8), 2729
- [17] Saber, M., & Elkenawy, E. M. (2020). Design and implementation of accurate frequency estimator depend on deep learning. *International Journal of Engineering & Technology*, 9(2), 367-377.
- [18] Sajedian, I., & Rho, J. (2019). Accurate and instant frequency estimation from noisy sinusoidal waves by deep learning. *Nano convergence*, 6(1), 1-5.
- [19] Chen, X., Jiang, Q., Su, N., Chen, B., & Guan, J. (2019, November). LFM Signal Detection and Estimation Based on Deep Convolutional Neural Network. In *2019 Asia-Pacific Signal and Information Processing Association Annual Summit and Conference (APSIPA ASC)* (pp. 753-758). IEEE.
- [20] Chen, X., Guan, J., Bao, Z., & He, Y. (2013). Detection and extraction of target with micromotion in spiky sea clutter via short-time fractional Fourier transform. *IEEE Transactions on Geoscience and Remote Sensing*, 52(2), 1002-1018.
- [21] Arya, V. J., & Subha, V. (2017, July). Pulse compression using linear frequency modulation technique. In *2017 International Conference on Intelligent Computing, Instrumentation and Control Technologies (ICICT)* (pp. 921-926). IEEE