

Supplementary materials

Article: Four-dimensional reassignment

Karol Abratkiewicz*

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1 A comparison of different cross-sections of the W2DFT and four-dimensional reassignment

Figure 1 presents different cross-sections of the W2DFT and four-dimensional reassignment. The results are for three cuts for $t_c = 20, 50, 80$, $r = 20, 50, 80$, and for the frequency bins of $\omega = 20, 128, 220$ and $\eta = 20, 128, 220$. The distribution had 101 samples in t and r , and 256 points of the Fourier transform in ω and η . The entropy of each image was computed using the linear scale normalized distribution and provided in the title of each image. The comparison was made such that the displayed results are grouped in sets of four for the same indices of the cross-sections, i.e. the first index for t , the first index for r , the first index for ω , and the first index for η , for example, $t = 20$, $r = 20$, $\omega = 20$, and $\eta = 20$. Subsequent comparisons follow for the second index, i.e. $t = 50$, $r = 50$, $\omega = 128$, and $\eta = 128$, and for the third index, $t = 80$, $r = 80$, $\omega = 220$, and $\eta = 220$.

Figure 1: A comparison of various selected cross-sections through the W2DFT (left-hand side animation) and its concentrated version (the right-hand side animation). The animation can be run using Adobe Reader.

2 Full radar range-Doppler map

Figure 2 presents the full range-Doppler map of the radar signal analyzed in Section III B in the main article. Due to the limited scope of the work, this result was not presented.

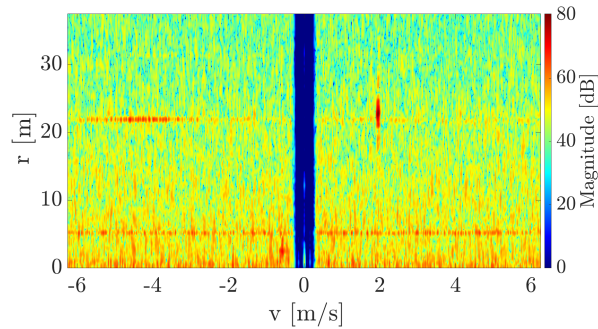


Figure 2: Full range-Doppler map of the signal analyzed in the article.

*Institute of Electronic Systems, Warsaw University of Technology, 00-665 Warsaw, Poland, karol.abratkiewicz@pw.edu.pl.