Moving number-theoretic transformation Raiders

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The paper proposes a new class of fast algorithms of Raider moving type, based on the identification of the relationship of intermediate samples in the current and previous steps slip. An analytical description of the sliding Rader algorithm at different levels of the original signal samples thinning. Means of graphical representation of the computational process of this algorithm in the form of signal graphs special structure are preposed. The analytical evaluation of the computational complexity of the proposed algorithms, confirming their high efficiency of compared to their static counterparts. The above theoretical results are illustrated by concrete examples. Moving algorithms developed by the author when converting Raider are original and effective for the signal processing of any duration. Their application is particularly useful in solving problems of processing spectral methods in real time.

Keywords: number bases, number-theoretic conversion, Raider conversion, spectra, signal graphs.

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