A Recursive Fast Fourier Transformation Algorithm

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In this paper a new composite filter bank structure is presented for the efficient implementation of the recursive discrete Fourier transformation. This structure is based on a proper combination of the concepts of polyphase filtering and the fast Fourier transformation algorithm (FFT). Its computational complexity is in direct correspondence with the FFT, and can be operated both in sliding window and block-oriented modes. The inherent parallelism of this structure enables very high speed in practical implementations.

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