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(57) Abstract :

Processing of distributed vectors of a newly created local Multiscale Fourier transform for use in medical imaging applications Abstract: The S-transform (ST), which was invented relatively recently, combines aspects of the Fourier and Wavelet transforms; it exposes frequency fluctuation over both space and time. It is a potentially strong instrument that may be applied to medical image processing in a variety of ways, including the study of textures and the filtering of noise. However, calculating the ST requires a significant amount of computer power, which makes typical solutions unsuitable for a variety of medical applications. The solution to this issue was to combine parallel and vector computations, which resulted in a reduction in processing time that was 25 times more efficient. This strategy has the potential to speed up a variety of algorithms used in medical image processing.

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