



## IMPROVED FREQUENCY DOMAIN SUPER-RESOLUTION ALGORITHM WITH CONJUGATE GRADIENT – NUFFT METHOD AS ITS RECONSTRUCTION CORE (TueAmOR9)

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★ Abstract :

In the paper frequency domain Super-Resolution algorithm with enhanced reconstruction stage is presented. The Fourier transform properties of relocated images are used to easy estimation of rotation and translation, as well as artifacts caused by subsampling. Previously, the bicubic interpolation has been employed in the reconstruction phase, in this paper it is replaced by iterative conjugate-gradient method with inverse nonuniform fast Fourier transform at its core. The new algorithm indeed gives improved results, if compared to those of the previous ones.