Quality Improvement on MRI Corrupted with Rician Noise using Wave Atom Transform

Abstract

Magnetic resonance imaging is a medical imaging technique that measures the response of atomic nuclei of body tissues to high frequency radio waves when placed in a strong magnetic field and that produces images of the internal organs. De-noising is always a challenging problem in magnetic resonance imaging and important for clinical diagnosis and computerized analysis, such as tissue classification and segmentation. It is well known that the noise in magnetic resonance imaging has a Rician distribution. In this paper, an improved de-noising technique is proposed on Magnetic Resonance Images highly corrupted with Rician Noise using wave atom shrinkage.

References

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Index Terms

Computer Science
Signal Processing
Keywords