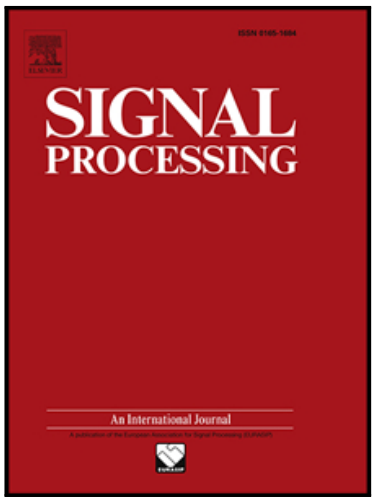

Sparse approximations in complex domain based on BM3D modeling

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PII: S0165-1684(17)30203-7
DOI: 10.1016/j.sigpro.2017.05.032
Reference: SIGPRO 6499

To appear in: *Signal Processing*

Received date: 4 January 2017
Revised date: 22 May 2017
Accepted date: 31 May 2017

Please cite this article as: Vladimir Katkovnik, Mykola Ponomarenko, Karen Egiazarian, Sparse approximations in complex domain based on BM3D modeling, *Signal Processing* (2017), doi: 10.1016/j.sigpro.2017.05.032

Highlights

- Sparsity for complex-valued variables is introduced in the following three types: directly in the complex domain and for two real-valued pairs phase/amplitude and real/imaginary parts of complex variables.
- The nonlocal block-matching technique is used for sparsity implementation and complex-domain denoising filter design.
- These filters are based on the high-order singular value decomposition (HOSVD) exploited to generate group-wise adaptive analysis/synthesis transforms.
- The thorough study of the algorithms performance is produced.