

Nomenclature

$\check{\mathbf{x}}$	Symmetric extension of a vector
$\hat{\mathbf{x}}$	DFT of the vector \mathbf{x}
λ_S	Continuous frequency response of a filter
$\lambda_{S,n}$	Vector frequency response of a filter
ω	Angular frequency
\oplus	Direct sum
\otimes	Tensor product
$\mathbf{x}^{(e)}$	Vector of even samples
$\mathbf{x}^{(o)}$	Vector of odd samples
ϕ_m	Wavelet basis, before transform
E_d	Filter which delays with d samples
F_N	$N \times N$ -DCT matrix
F_N	$N \times N$ -Fourier matrix
$O(f(\mathbf{x}))$	Order of a function
$O(N)$	Order of an algorithm
S^f	Matrix with the columns reversed
$V_{N,T}$	N 'th order Fourier space
$W_m^{(0,1)}$	Resolution m Complementary wavelet space, LH
$W_m^{(1,0)}$	Resolution m Complementary wavelet space, HL
$W_m^{(1,1)}$	Resolution m Complementary wavelet space, HH
\mathcal{C}_m	Wavelet basis, after transform, reordered

$\mathcal{D}_N = \{\mathbf{d}_0, \mathbf{d}_1, \dots, \mathbf{d}_{N-1}\}$ N -point DCT basis for \mathbb{R}^N

$\mathcal{D}_{N,T}$ Order N Fourier basis for $V_{N,T}$

$\mathcal{E}_N = \{\mathbf{e}_0, \mathbf{e}_1, \dots, \mathbf{e}_{N-1}\}$ Standard basis for \mathbb{R}^N

$\mathcal{F}_{N,T}$ Order N complex Fourier basis for $V_{N,T}$

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