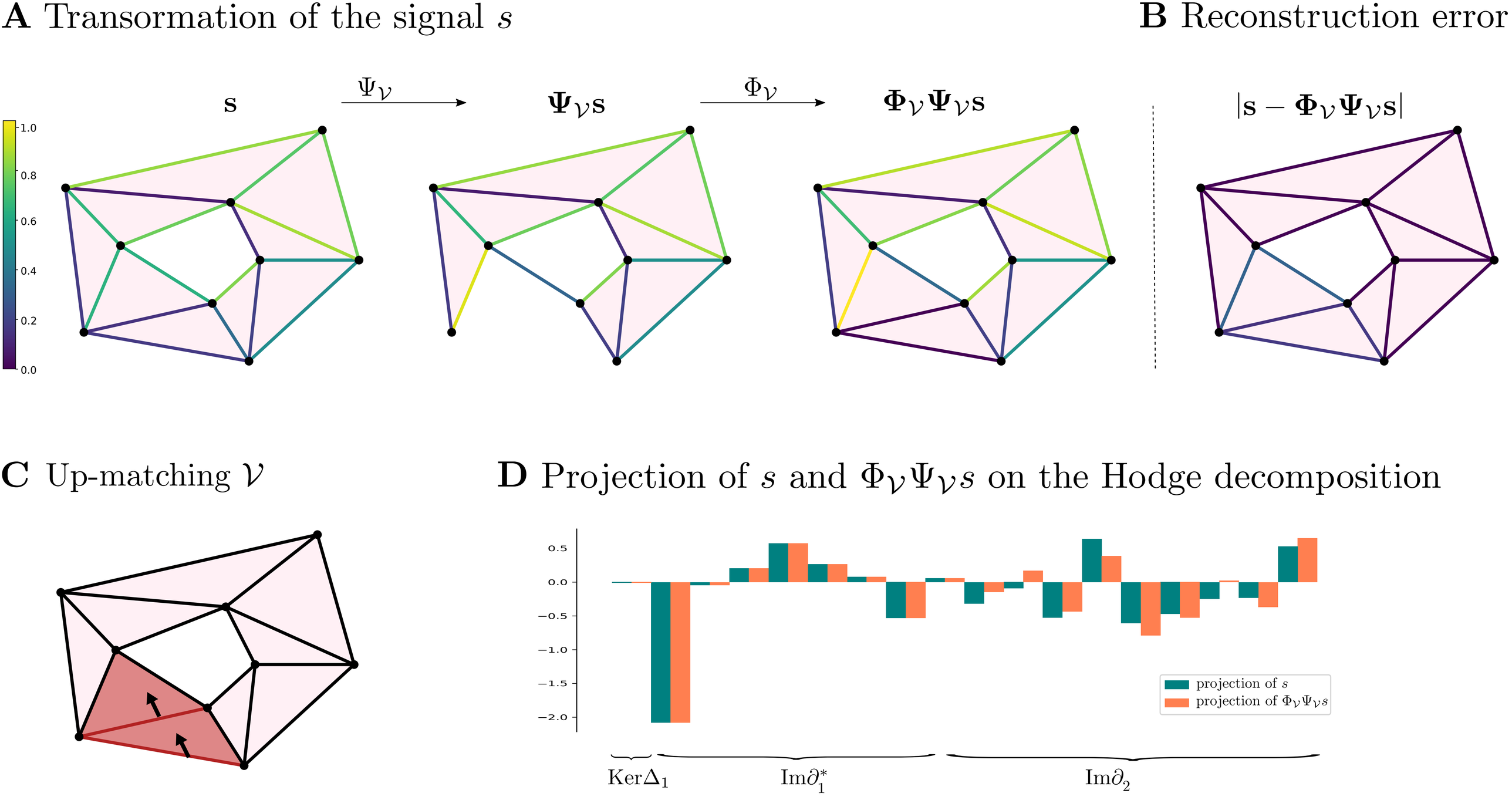
A Transormation of the signal s
B Reconstruction error
$\mathbf{s}$
$\Psi_{\mathcal{V}}$
$\mathbf{\Psi}_{\mathcal{V}}\mathbf{s}$
$\Phi_{\mathcal{V}}$
$\mathbf{\Phi}_{\mathcal{V}}\mathbf{\Psi}_{\mathcal{V}}\mathbf{s}$
$|\mathbf{s} - \mathbf{\Phi}_{\mathcal{V}}\mathbf{\Psi}_{\mathcal{V}}\mathbf{s}|$
1.0
0.8
0.6
0.4
0.2
0.0
C Up-matching $\mathcal{V}$
D Projection of s and $\Phi_{\mathcal{V}}\Psi_{\mathcal{V}}s$ on the Hodge decomposition
0.5
0.0
−0.5
−1.0
−1.5
−2.0
projection of s
projection of $\Phi_{\mathcal{V}}\Psi_{\mathcal{V}}s$
$\mathrm{Ker}\Delta_1$
$\mathrm{Im}\partial_1^*$
$\mathrm{Im}\partial_2$