Test of Thresholding Strategy

Use Daubechies 8 orthogonal filter bank. Decompose for 5 levels, filter norm saved in ‘nor\_daubechies8.mat’.

Noise level Sigma = 5, 10, 30, 50, 80, 100.

Window size = 7x7.

Test for Barbara 512x512 gray scale image.

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| --- | --- | --- | --- | --- | --- | --- | --- |
| Barbara | | | | | |  |  |
| **Sigma** | **Noisy** | **BenchMark** | **LS** | **BiShrink** | **lambda1=0.5** | **lambda1=0.6** | **lambda1=0.7** |
| **5** | 34.15 | 36.98 | 36.88 | 36.9 | 36.84832134 | 36.83629727 | 36.8212162 |
| **10** | 28.13 | 32.83 | 32.65 | 32.73 | 32.67537387 | 32.66492237 | 32.64950537 |
| **30** | 18.5 | 26.81 | 26.43 | 26.58 | 26.57136276 | 26.55906037 | 26.5355392 |
| **50** | 14.15 | 24.43 | 23.85 | 24.12 | 24.14177657 | 24.13707155 | 24.11354887 |
| **80** | 10.07 | 22.67 | 21.75 | 22.36 | 22.27173533 | 22.28259673 | 22.26020985 |
| **100** | 8.13 | 21.98 | 20.83 | 21.69 | 21.5599094 | 21.58577395 | 21.57739601 |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| Lena | | | | | |  |  |
| **Sigma** | **Noisy** | **BenchMark** | **LS** | **BiShrink** | **lambda1=0.5** | **lambda1=0.6** | **lambda1=0.7** |
| **5** | 34.15 | 37.86161154 | 37.69964919 | 37.74185194 | 37.63975628 | 37.61826895 | 37.59146843 |
| **10** | 28.13 | 34.58978621 | 34.32822894 | 34.52457313 | 34.40488245 | 34.39541472 | 34.37901384 |
| **30** | 18.5 | 29.67801262 | 29.01957508 | 29.58519761 | 29.41248594 | 29.41696042 | 29.4115878 |
| **50** | 14.15 | 27.48806288 | 26.4855125 | 27.32868532 | 27.15458893 | 27.17622444 | 27.16984822 |
| **80** | 10.07 | 25.55571434 | 24.04344381 | 25.26237203 | 25.10807276 | 25.14455424 | 25.14647949 |
| **100** | 8.13 | 24.6340135 | 22.80400966 | 24.26808758 | 24.11213643 | 24.16952667 | 24.17882423 |