

# Computer Vision I: Homework 8

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Figure 1: gaussian noise with amplitude of 10

**original image**



**gaussian with amplitude of 30 SNR:4.1617**



**Box 3x3 SNR:12.5998**



**Box 5x5 SNR:13.3057**



**Median 3x3 SNR:11.0477**



**Median 5x5 SNR:12.8675**



**Opening and closing SNR:11.2059    Closing then opening SNR:11.188**



Figure 2: gaussian noise with amplitude of 30

**original image**



**salt and pepper with probability of 0.1 SNR:-2.0808**



**Box 3x3 SNR:6.387**



**Box 5x5 SNR:8.5902**



**Median 3x3 SNR:15.0823**



**Median 5x5 SNR:15.7948**



**Opening and closing SNR:-2.0554**



**Closing then opening SNR:-2.4582**



Figure 3: salt and pepper noise with probability of 0.1

**original image**



**salt and pepper with probability of 0.05 SNR:0.9152**



**Box 3x3 SNR:9.465**



**Box 5x5 SNR:11.1576**



**Median 3x3 SNR:19.2663**



**Median 5x5 SNR:16.4298**



**Opening and closing SNR:5.9366**



**Closing then opening SNR:5.3023**



Figure 4: salt and pepper noise with probability of 0.05