Computer-vision-Homework 8

Noise Removal

Due date：07 Dec 2021

Gaussian Noise with amplitude = 10, SNR = 13.589

3*3 Box Filter, SNR 16.399   5*5 Box Filter, SNR 13.602

3*3 Median Filter, SNR 16.399

5*5 Median Filter, SNR 13.602

Opening-then-closing, SNR 13.244

Closing-then-Opening, SNR 13.548

Gaussian Noise with amplitude = 30, SNR = 2.873

3*3 Box Filter, SNR 10.561   5*5 Box Filter, SNR 11.138

3*3 Median Filter, SNR 10.941

5*5 Median Filter, SNR 12.694

Opening-then-closing, SNR 11.081

Closing-then-Opening, SNR 7.991

Salt and Pepper Noise with threshold = 0.05, SNR = 0.968
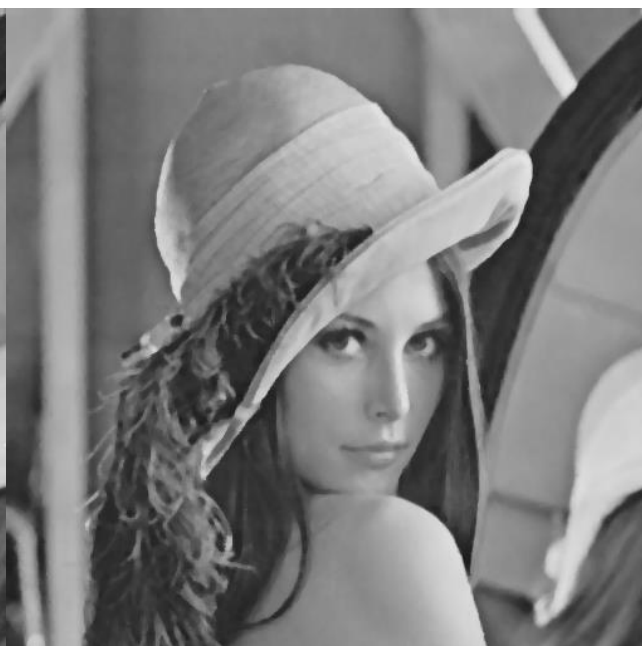

3*3 Box Filter, SNR 9.328   5*5 Box Filter, SNR 10.645
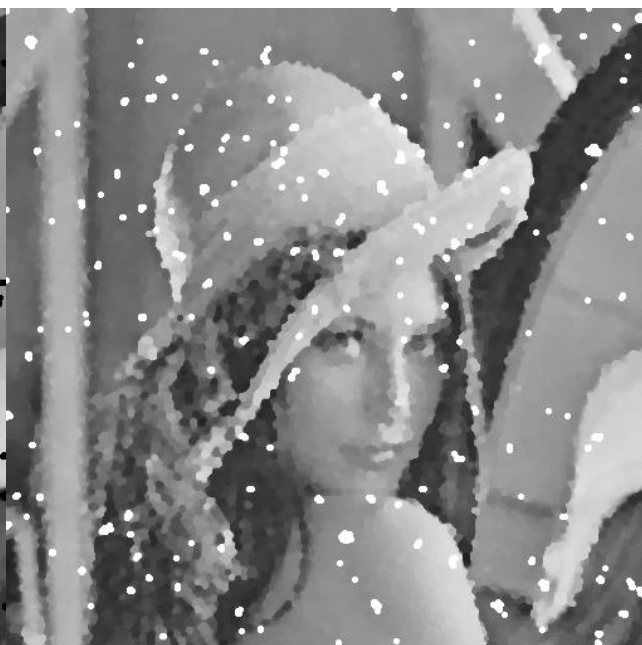
3*3 Median Filter, SNR 19.283

5*5 Median Filter, SNR 16.363

Opening-then-closing, SNR 6.100

Closing-then-Opening, SNR 5.456

Salt and Pepper Noise with threshold = 0.1, SNR = -2.090
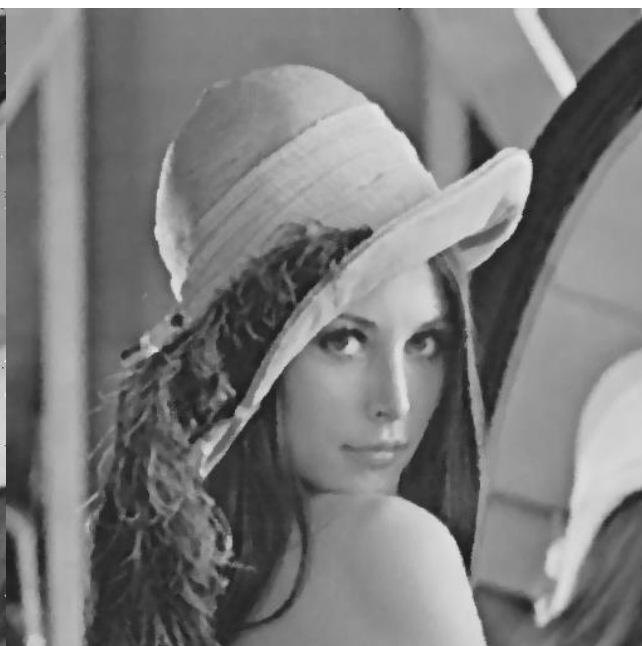

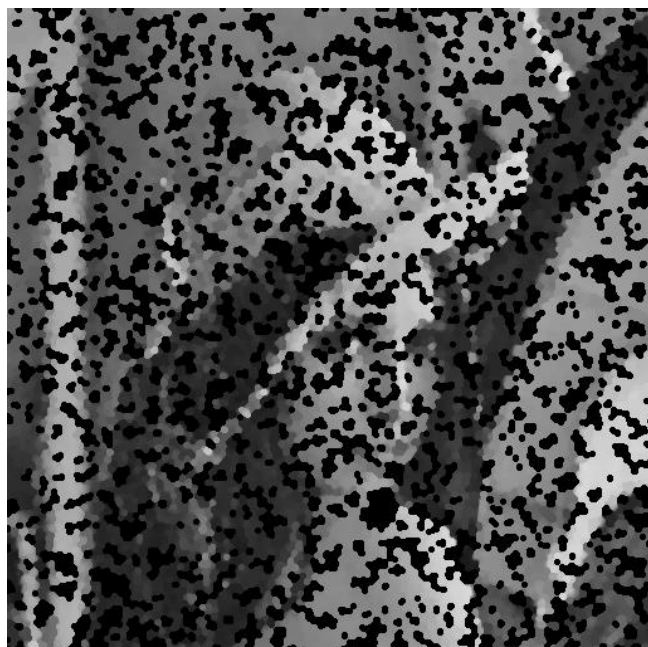3*3 Box Filter, SNR 6.258   5*5 Box Filter, SNR 8.203

3*3 Median Filter, SNR 14.947

5*5 Median Filter, SNR 15.775

Opening-then-closing, SNR -2.049

Closing-then-Opening, SNR-2.650