

2021/12/07 陳嘉政 r10922171 HW8

1. Gaussian noise of amplitude 10

雜訊圖

SNR = 13.5988



(1)3x3 box filter

SNR = 17.7372



(2)5x5 box filter

SNR = 14.8614



(3)3x3 median filter

SNR = 17.6762



(4)5x5 median filter

SNR = 16.0041



(5) opening then closing

SNR = 13.2449



(6) closing and opening

SNR = 13.6037



2. Gaussian noise of amplitude 30

雜訊圖

SNR = 4.17281



(1) 3x3 box filter

SNR = 12.6067



(2) 5x5 box filter

SNR = 13.2879



(3) 3x3 median filter

SNR = 11.102



(4) 5x5 median filter

SNR = 12.8922



(5) opening then closing

SNR = 11.1734



(6) closing then opening

SNR = 11.2145



3. Salt and pepper of probability 0.05

雜訊圖

SNR = 1.01534



(1)3x3 box filter

SNR = 9.53373



(2)5x5 box filter

SNR = 11.2015



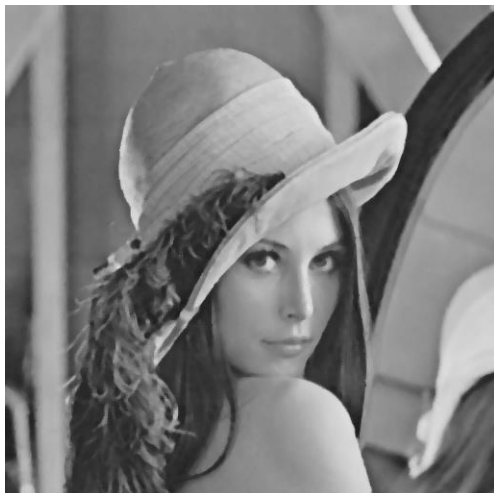
(3)3x3 median filter

SNR = 19.1263



(4) 5x5 median filter

SNR = 16.3716



(5) opening then closing

SNR = 5.69555



(6) closing then opening

SNR = 5.58735



4. Salt and pepper of probability 0.10

雜訊圖

SNR = -1.87318



(1)3x3 box filter

SNR = 6.56892



(2)5x5 box filter

SNR = 8.71012



(3)3x3 median filter

SNR = 15.3722



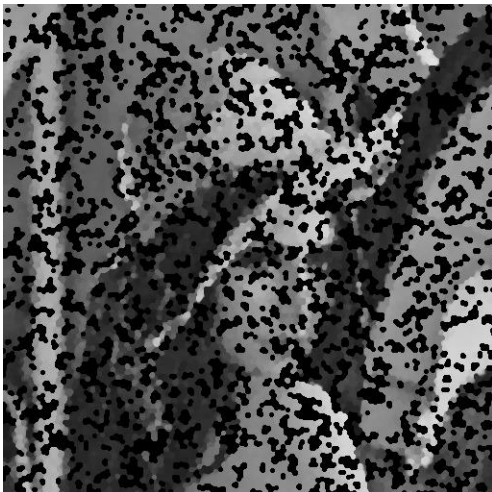
(4) 5x5 median filter

SNR = 15.7797



(5) opening then closing

SNR = -2.14207



(6) closing then opening

SNR = -1.95822

