

# Conservative Smoothing Exercise [Help]

**Help:** The following tips will help you complete this exercise:

- The .py files located in the 'Noise\_Functions' folder, contain one single function each, that you can use to corrupt an image with noise, by importing them to your .py file. Make sure that they are located in the same directory. You will not run these files.
- Make sure that the algorithm works for both odd and even-sized filters. This can be achieved with a modulo operation.
- When comparing the value of a pixel to the values of its neighbors, make sure that you do not compare it to itself. Otherwise, the filter will not work as intended.
- To display two images as one, you can use the NumPy.hstack() or NumPy.vstack() functions.
- When displaying the image, if it is entirely white or black, try specifying its data type using the .astype() function.

**Material for better understanding:**

<https://homepages.inf.ed.ac.uk/rbf/HIPR2/csmooth.htm>