Introduction to Pattern Recognition WS 2017/18
Daniel Stromer, daniel.stromer@fau.de

Programming Task 2: Bilateral Filter (10 Points)

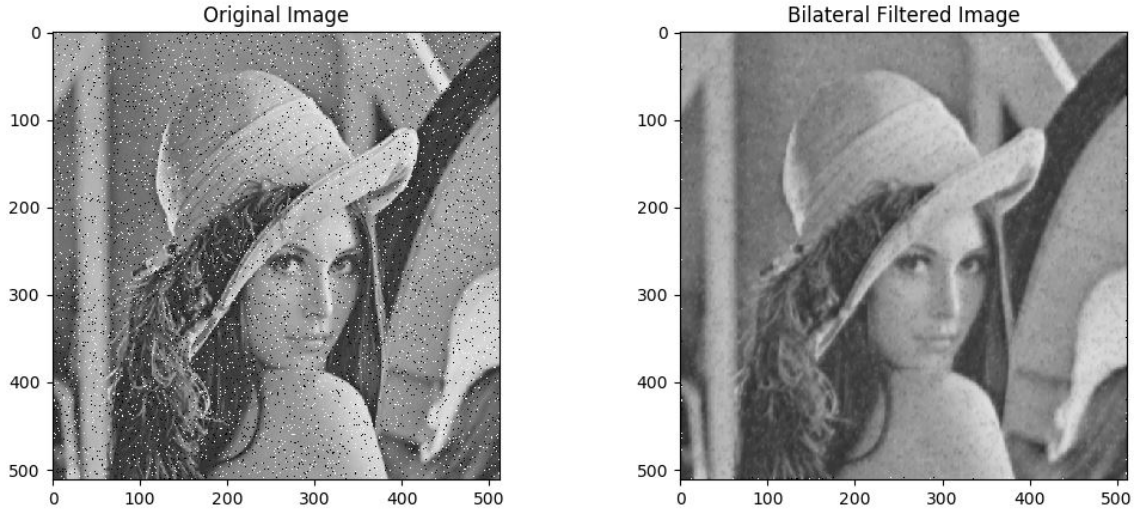
Deadline: 26. November 2017

LEHRSTUHL FÜR MUSTER-ERKENNUNG

1 Bilateral Filter implementation (10 P)

In this task, you should implement your own bilateral filtering method which is used for edge preserving noise reduction. Therefore, please use the provided code skeleton. At first, you should read the original paper of Tomasi and Manduchi 'Bilateral filtering for gray and colors images' from 1998 [1]. Concentrate on Chapter 2 and implement the Gaussian Case step by step. Using 'Main.py' from the provided 'zip'-file allows you to proof your solution.
Hint: The calculation might take a while, depending on your implementation.

2 Output Example



[1] Tomasi, Carlo, and Roberto Manduchi. "Bilateral filtering for gray and color images." Computer Vision, 1998. Sixth International Conference on. IEEE, 1998.