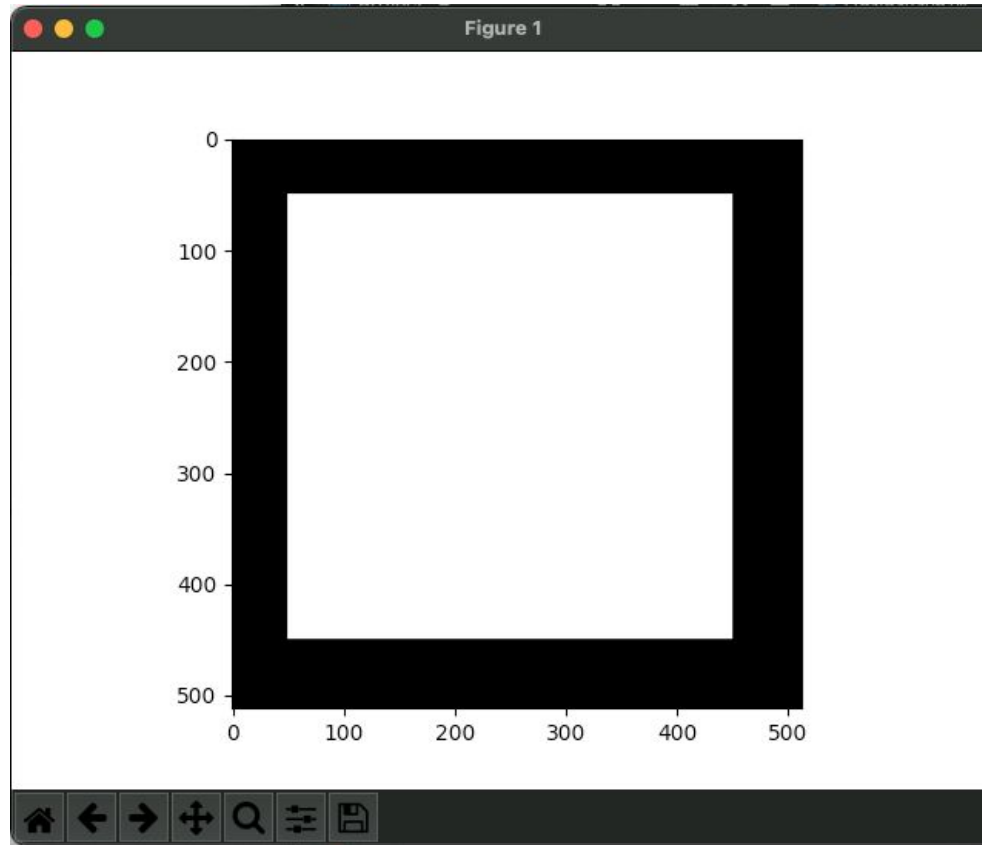


Lec_ex09: Observations & Thoughts by Yifan Wang

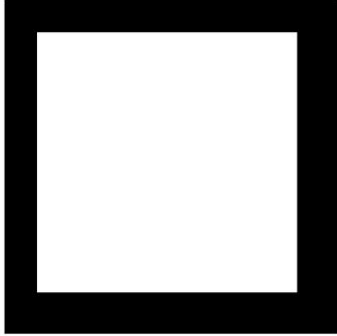
- When sigma is small, Harris Keypoints detected are more accurate to the actual interest points (at least in the scale of my image).
- When sigma is larger, Harris Keypoints detected tend to move inward to the center of square.
- For SIFT Keypoints, it seems identical for both sigma for my image. I don't know if that's correct or why that is the case.

Original Synthetic Square(200 in middle, 100 in background):

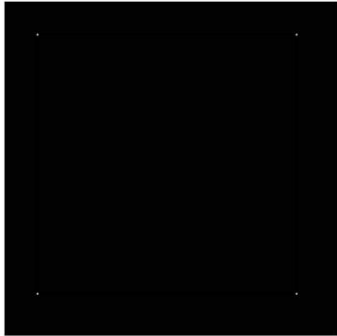


Show the gray scale image and the Harris image

Original



Harris

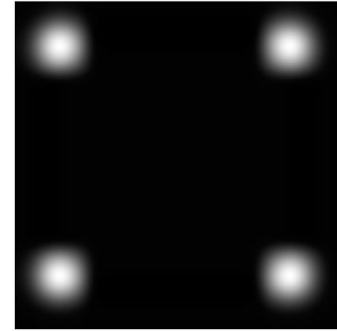


$\sigma = 0.5$

Original



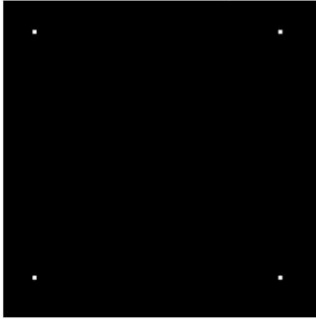
Harris



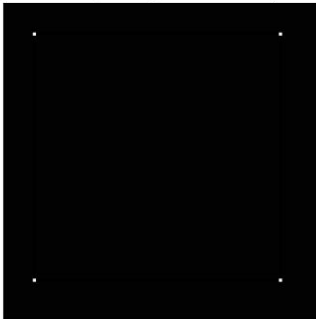
$\sigma = 15$

Comparing the dilated image to the Harris image will preserve only those locations that are peaks

Dilated Harris image

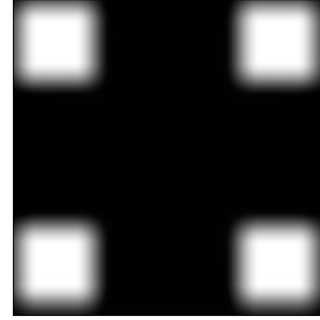


Harris peaks (dilated as well)

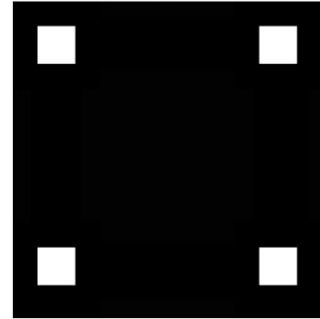


sigma = 0.5

Dilated Harris image



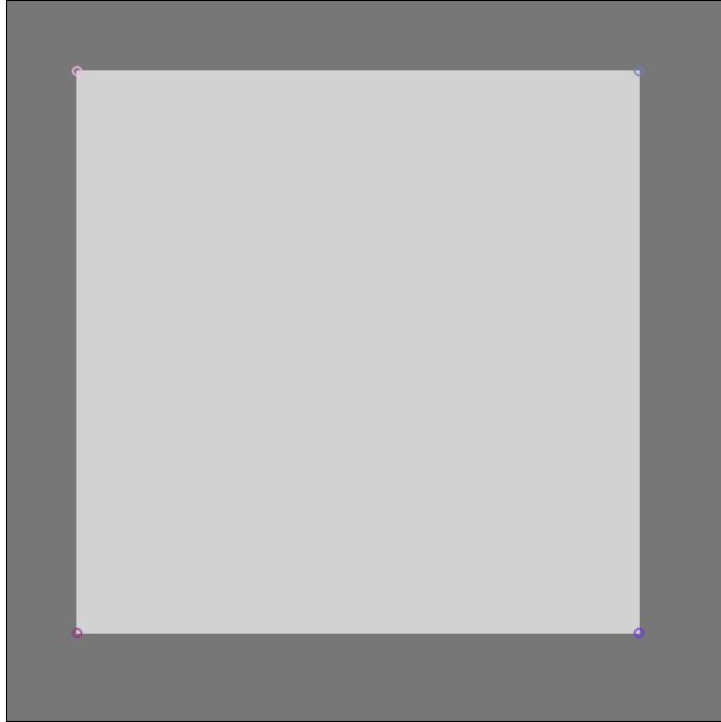
Harris peaks (dilated as well)



sigma = 15

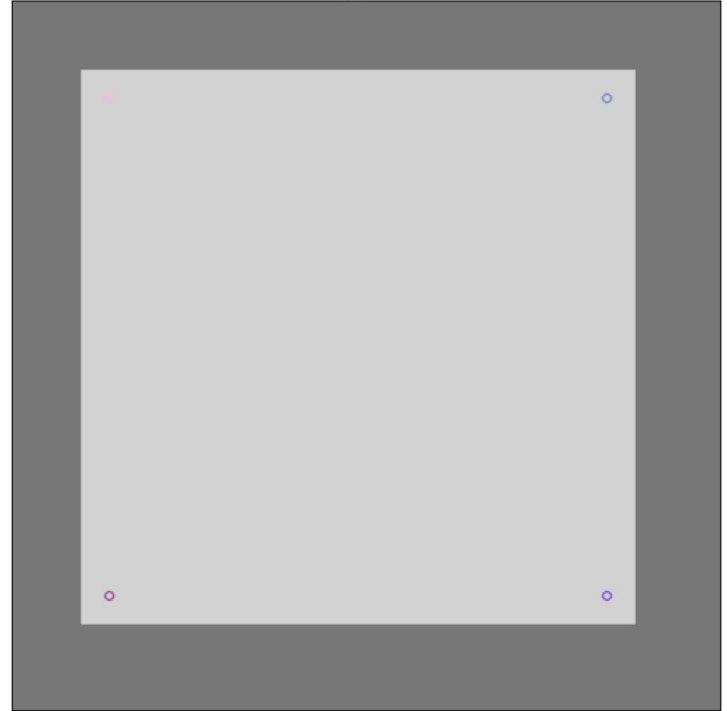
Display the Harris keypoints on the original image

Harris keypoints shown



$\sigma = 0.5$

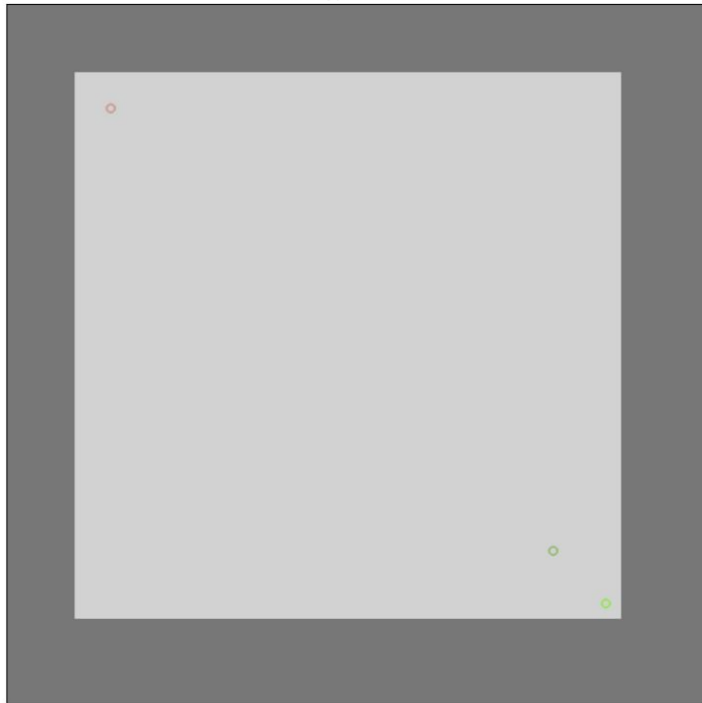
Harris keypoints shown



$\sigma = 15$

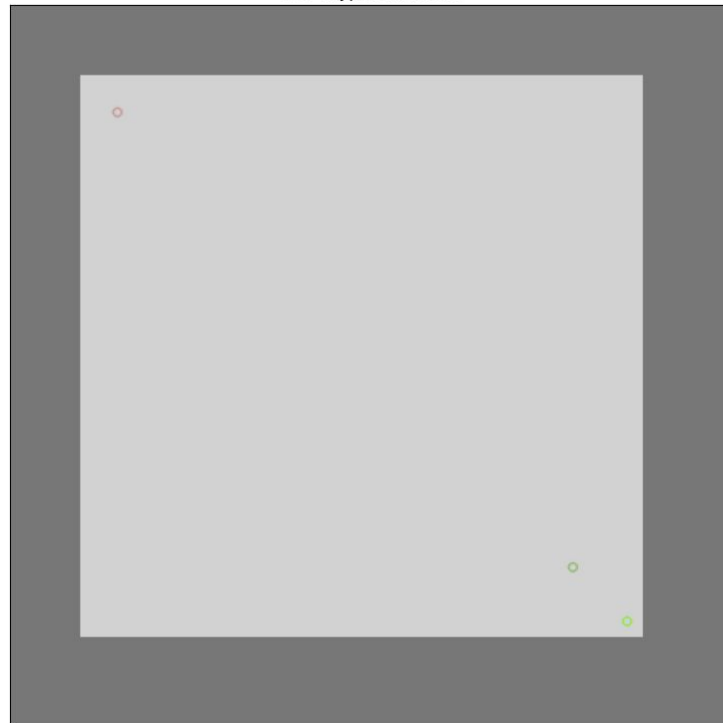
SIFT

SIFT keypoints shown



sigma = 0.5

SIFT keypoints shown



sigma = 15