

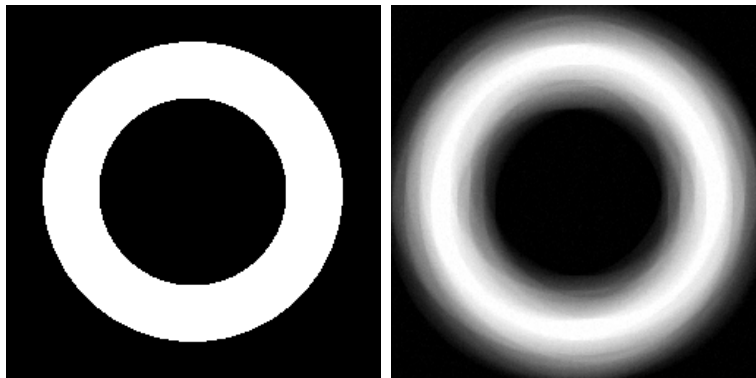
Homework 11

Submission instructions.

- Submissions are due on Tuesday 11/24 at 10.00pm ET. You can submit without penalty till Tuesday 12/01 10pm ET.
- Please upload scans of your s

Instructions

- Please solve all non-MATLAB problems without resorting to a computer.
 - Please show all necessary steps to get the final answer. However, there is no need to be overly elaborate. Crisp and complete answers.
 - For all MATLAB problems, include all code written to generate solutions.
 - Please post all questions on the discussion board on the Piazza course.
 - If you feel some information is missing, please inform the instructor and proceed. Some reasonable assumptions will be accepted.
1. **Q1 [Recovering blur kernel]** In `hw11.mat`, there are two images: `imsharp` and `imblur`, which is a blurred version of the former. All we are given is that the blur kernel is 31×31 . Recover the blur kernel.



(left) Sharp image.

(right) blurred noisy image

Deliverables: 1) A brief discussion of the strategy for recovering blur kernel. 2) Mathematical formulation of the strategy. 3) MATLAB code. 4) Recovered blur kernel visualized using `imagesc`.

Some notes: 1) Note the sizes of `imsharp` and `imblur`. 2) Some measurement noise has been added. The added noise was Gaussian and white.