

## Lab 6, DIP1

In this lab we'll do bandreject filtering to remove unwanted periodic noise in images. In exercise 2 we'll study the power spectrum of an image.

### Exercise 1

Implement a MatLab program that filters an image and removes unwanted periodic noise in images. Use a bandreject filter, where the stop-band is a ring with an inner and outer radius. You may use the command *impixel()* to specify the inner and outer radius.

### Exercise 2

Estimate the power spectrum for the images crowd.jpg, lena.jpg and cameraman.tif. Estimate the optimal value for  $d$ , if you want the spectrum to look like the function:  $\frac{a}{|\vec{\omega}|^d}$ , ( $\vec{\omega}$  denotes the frequency vector).