

Mathematical Foundations of Computer Graphics & Vision



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Today!

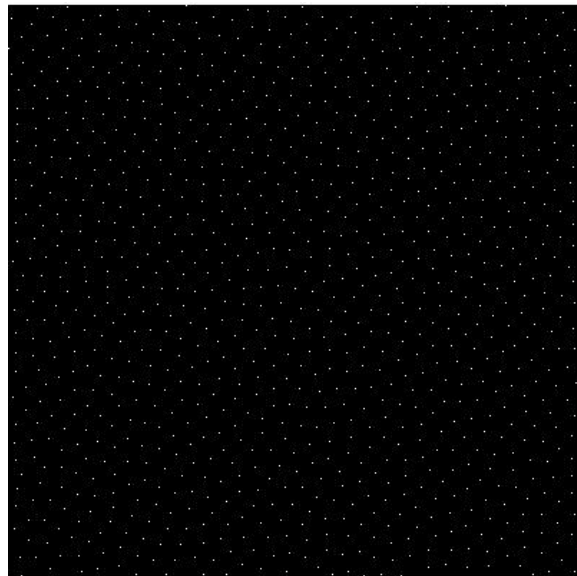
- 1) Handout, exercise 4;
- 2) Presentations, exercise 3.

Exercise 4

- You can use python if desired
- More info in handout .pdf

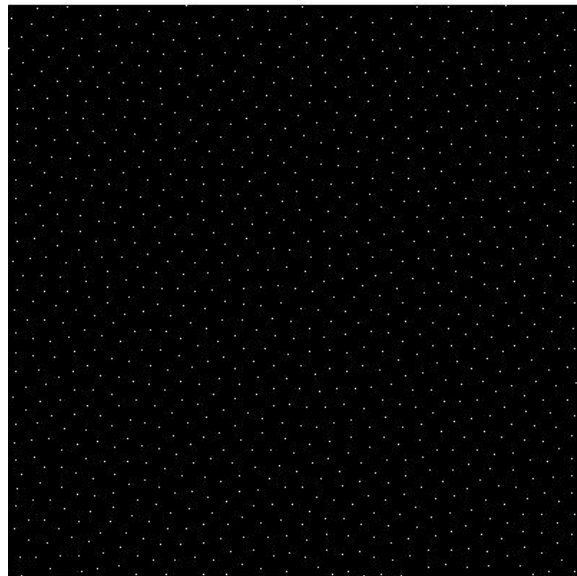
Part 1

- Looks at sampling patterns
- Different ways to represent a pattern



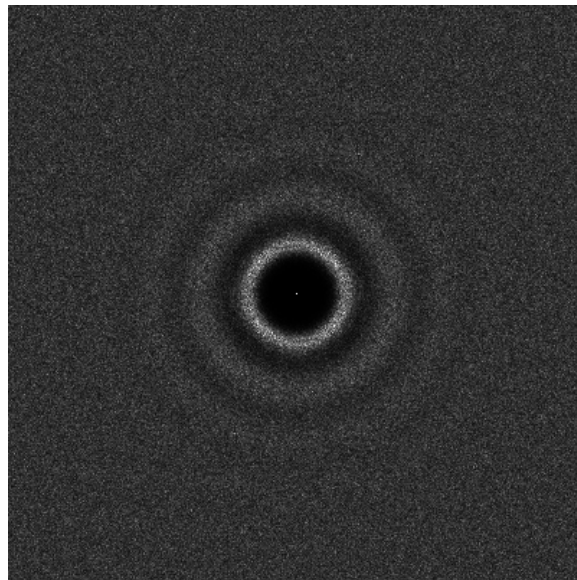
Part 1

- Task 1 deals with periodograms
- You will take a set of distributions and compute the FFT



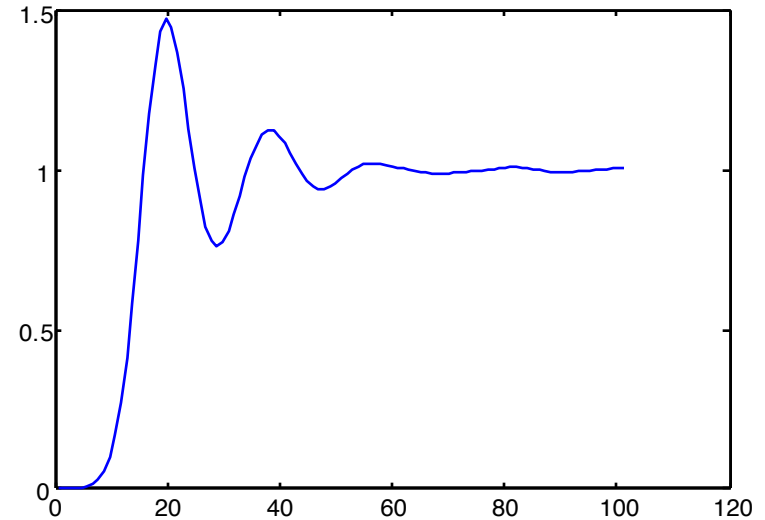
Part 1

- Task 1 deals with periodograms
- You will take a set of distributions and compute the FFT



Part 1

- Task 2 deals with pair correlation functions
- You will find the necessary information in the handout .pdf and section 3.2 of the Provided paper.
- There are some additional theoretical questions.



Part 2

- Part 2 will deal with graph cut
- Application to segmentation

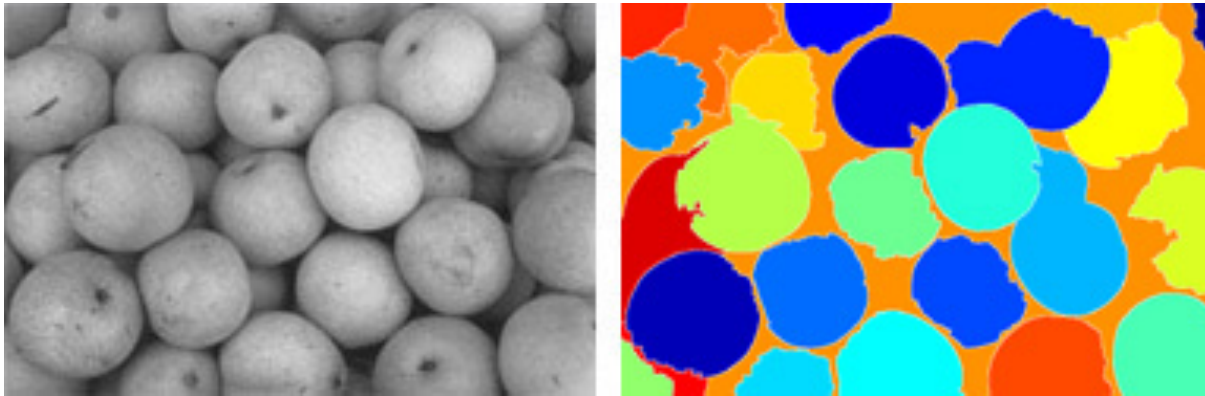


Image Source : <http://ch.mathworks.com/discovery/image-segmentation.html>

Part 2

- Labeling problem : label pixels as foreground or background
- Your work will be to build a proper graph and compute the corresponding costs

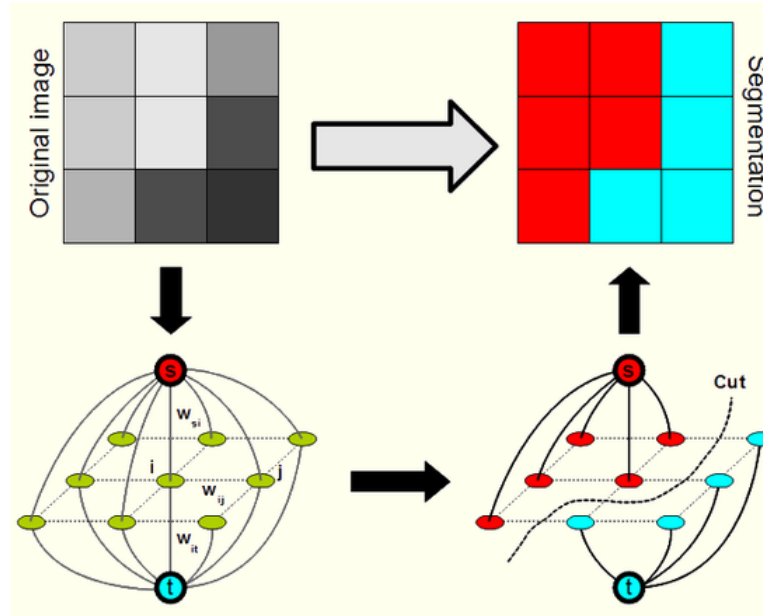
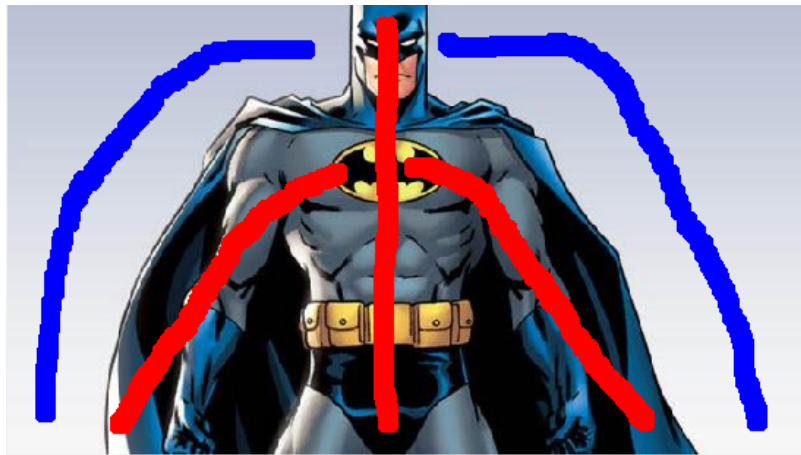


Image Source : <http://www.ondrej-danek.net/en/research>

Part 2

- Interactive segmentation



End of handout 4!

- Questions?