Exercise Sheet SoSe 2014 Wirtschaftsinformatik und Maschinelles Lernen (ISMLL) Prof. Dr. Dr. Lars Schmidt-Thieme, Carlotta Schatten, M.Eng.

## **Exercise Sheet Image Processing 10**

Submission: 22.07

## Exercise 1 Segmentation (15 Points)

- a) What is the difference between neighborhood, region and segment? First explain the concepts then compare them. (6 Points)
- b) What is the difference between supervised and unsupervised problems. First explain the concepts then compare them. (3 Points)
- c) What means clustering? How is it used for segmentation? Is it supervised or unsupervised? (3 Points)
- c) Is the mean shift segmentation algorithm segmenting perfectly? Mention at least two artifacts and why these exist. (3 Points)