## **Clustering Methods**

Exercises 7/7, 22.5.2017

- 1. Several variants of SSW and SSB were tried for cluster validation, including SSW/k and k·SSW/SSB. Why not just k·SSW? Which of the following is most logical: k·TSE, k·MSE, k·nMSE.
- 2. Implement and test the measures mentioned above and test with A, S, DIM and Unbalance data. Report the results.
- 3. Knee-point detection was also considered using second derivative with the three sub-sequent clustering results as follows: f(k-1) 2f(k) + f(k+1), where f is any validity index such as TSE, BIC or the above WB-index. Any idea how exacHowever, it
- 4. Two different ways of using KNN links were presented for outlier detection: mean distance and the indegree. Can we combine these and how? Outline possible method.
- 5. Upload your answers to Sami. (samisi@cs.uef.fi) by 22.5. by 10.00 latest. In your email, have title "Clustering exercises 7/7".