

## Exercises for Multimedia Databases

### Sheet 9 (until 21.01.2010)

Please note that you need **50%** of all exercise points to be admitted for the final exams. Exercises have to be turned in until **Thursday** before the next lecture and should be completed in teams of two students each. Write both names and “Matrikelnummer” on each page. If you have multiple pages, staple them together! Please hand in your solutions on **paper** into the mailbox at the IFIS floor or to our secretary (Mühlenpfordtstraße 23, 2<sup>nd</sup> floor). You may answer in either German or English.

#### Exercise I: Similarity Search (18P)

- a) Calculate the Ideal Video Similarity of the two videos V1 and V2, provided as values in the Euclidean space in file mySave.mat. Please provide the IVS value and also describe shortly the steps you have taken in order to calculate it. (15P)
- b) Provide on paper the corresponding Voronoi diagrams of V1 and V2. (3P)

**Note:** In order to read V1 and V2 from mySave.mat, use “load('mySave.mat')” command in Matlab. I obviously suggest not doing the tasks by hand since V1 and V2 each have 100 values.