

Exercises for Spatial Databases and GIS

Sheet 12 (until 02.02.2018)

Exercise 1 (GPS)

On slides 843 and 844 three different types of errors are described, which may occur when satellites are used for positioning.

1. Which error(s) can be corrected? How?
2. What other possibilities exist to improve the positioning and in which cases can they be applied?

Exercise 2 (Privacy)

Given is a number of moving objects (people with mobile phones), that want to use a location based service. A centralized trusted party architecture should be used to guarantee k-anonymity.

1. Sketch out an algorithm to provide k-anonymity that is based on a r-tree.
2. What advantages/disadvantages does your algorithm have compared to the quadtree spatial cloaking?