TEDU MATH SEMINARS

Who are you? – Patterns in locational data

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Abstract:

Locational data, in particular from WiFi devices comes basically in the form of, a device id, time seen and an estimate of location. Many tens of thousands of such tuples can make up the database of a shopping mall, stadium, library, etc., even in one day.

We investigate two methods to categorize the types of people at a football arena. We demonstrate both approaches to identify different sets of supporters and hence possible different behaviors of each group.

The first approach is an explicit one, whereby we categorize people by rules of movement – namely where, when and how long a device is seen in a zone(s). The second approach merely records for each device, the set of zones they have been seen in and using an association rule approach can determine sets of zones which commonly occur together. This in turn leads to the identification or categorization of groups of people.

DATE: 15.06.2017
TIME: 16:00
PLACE: TED University, A216