Open Lecture

A NEW CONCEPTUALIZATION OF GEOSPATIAL BIG-DATA ANALYTICS

Prof Bin Jiang, University of Gävle, Sweden
Monday, May 27th 10–12 am
Rum U41 Brinellvägen 28A, våningsplan 4, KTH Campus

While we recognize that cities are inherently complex systems, we know that many events, such as accidents or crime, do not happen at random in urban space. What are the most appropriate approaches to deal with this spatial variability? How can we further advance our understanding of spatial patterns of events during the zeitgeist of "big data"? One strategy is to adopt **the new scaling law**, proposed by Prof Bin Jiang, University of Gävle, Sweden. The following open lecture explores the prominent laws of geography and introduces the two concepts of **natural cities** and **natural streets** to demonstrate the ubiquity of scaling law, and further argue for a new conceptualization of geospatial data analytics, based fractal geometry and Pareto statistics, in order to gain greater insights into big data.

The lecture will be followed by refreshments and discussions on the implications of the new approach to research and practice.

This lecture is of value to those working within geography, criminology, and all who work in evidence-based safety research.

This is an open event organized by Safeplaces Network (Säkraplatser nätverket) and is an integral part of the Ph.D. course Spatial Data Analysis in Practice headed by Prof Vania Ceccato (Department of Urban Planning and Built Environment, KTH).

The lecture is free but registration is mandatory as spaces are limited. To register, contact **gavinl@kth.se**
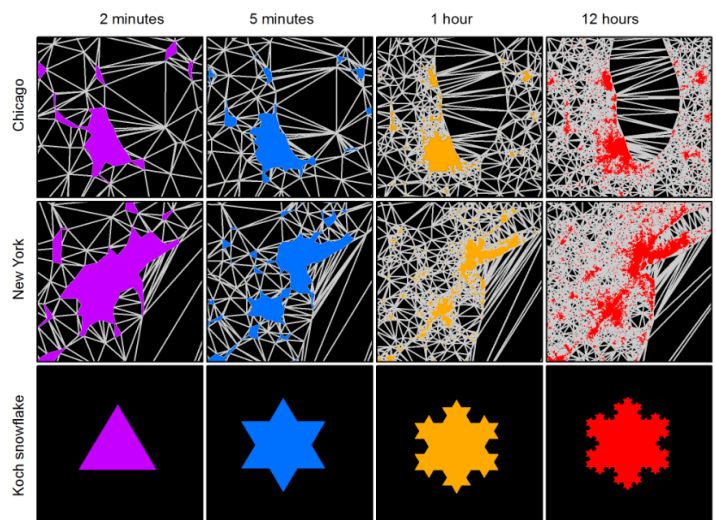
Professor Bin Jiang - Faculty of Engineering and Sustainable Development, Division of GIS Science - University of Gävle
Dr. Bin Jiang is Professor in GeoInformatics and Computational Geography at the University of Gävle, Sweden. He has worked in the past with The Hong Kong Polytechnic University, and University College London's Centre for Advanced Spatial Analysis. His research interests center on geospatial analysis and modeling of urban structure and dynamics, e.g., agent-based modeling, scaling hierarchy, and topological analysis applied to street networks, cities, and geospatial big data. He is the primary developer of the software *AXWOMAN*, a tool for topological analysis of very large street networks and invented the new classification scheme *head/tail breaks,* for scaling analysis of big data.