

# Spatial Data Infrastructures and Data Mining

Workshop to EnviroInfo 2008

Nguyen Xuan Thinh

Spatial data infrastructures (SDI) and data mining has been a key challenge of a modern society. The use of spatial information is now a central part of our daily life. One key to a sustainable future within the changing world is access to spatial information and to reach information by data mining that leads to better decision-making. This is not possible without building and maintaining spatial data infrastructures and data mining technology. Especially spatial data mining technology is critical to a number of application domains, including spatial and environmental planning, public health and safety, climatology, transportation, and mobile-commerce. Spatial data mining can be defined as the search of patterns that could exist in databases of spatial data infrastructures. Due to the advances in SDI development and scientific data collection we are faced with a large and continuously growing amount of data which makes it impossible to find out patterns and to discover knowledge in such databases manually.

The workshop aims to bring together some key researchers, producers, users and practitioners in SDI development, geographic information systems, and spatial data mining and ask them for contributions to the workshop. The main objectives of the workshop are:

- (1) To provide an overview of SDI concepts, standards and practices associated with the implementation and operation of spatial data infrastructures with a focus on the national and European level.
- (2) To discuss state-of-the-art of the spatial data mining technology and new methods and algorithms of this technology in the context of development and using of spatial data infrastructures.
- (3) To demonstrate some applications of the spatial data mining technology in spatial and environmental research.