

**SESSIONS TO BE ORGANIZED BY THE IGU-CMGS**  
**At the IGC2012, Cologne, August 26-30, 2012**

**Spatial statistics and Applications**

This session will focus on the recent advances in the theory and applications of spatial statistics. It will be a session of four presentations, followed by questions and answers. The purpose is to stimulate discussions on the development and use of spatial statistics in solving geographical problems.

Session Chair: Manfred Fischer

**Geocomputations and Applications**

This session will place emphasis on recent developments in geocomputation methods other than statistics. It will contain four presentations with the view to encourage discussion on the formulation of novel geocomputation methods for solving geographical problems in general and GIS/remote sensing problems in particular.

Session Chair: Thérèse Steenberghen/Stewart Fotheringham

**Modeling Human and Physical Processes**

The four papers in this session will deal with the modeling of human activities and physical processes in space and time. The purpose is to show how models can be built to analyze spatial and temporal processes in human and physical systems, with the purpose to solve practical problems in a systematic manner.

Session Chair: Pavlos Kanaroglou/Jinfeng Wang

**Spatial Data Mining and Knowledge Discovery**

This session intends to have four presentations centering on the theme of discovering patterns and processes from spatial and temporal data. Algorithmic developments and practical applications will be discussed. It is hoped that fundamental issues in this area of research can be explored in the exchange of ideas.

Session Chair: Yee Leung/Ali Bennisr

## **Microsimulations of Geographical Systems**

Session Chair: Graham Clarke

Simulating human and physical systems at the micro-level will be the focus of discussion in this session. We intend to have four papers that deal with the employment of modelling systems that focus on individual or household behaviour. These techniques may include microsimulation, cellular automata, and agent-based models to simulate geographical phenomena and processes.