Location:
The University of Texas at Dallas (UTD)

Time:
June 16 – June 20, 2008

Application procedure:
Go to www.spatialfiltering.com

Application deadline:
May 5, 2008

Participant's support:
up to $ 750 for successful applicants

Workshop coordinators:
Michael Tiefelsdorf (UTD)
Daniel A. Griffith (UTD)

Workshop instructors:
Roger Bivand (Norwegian School of Economics & Business Administration, Bergen)
Yongwan Chun (UTD)
Daniel A. Griffith (UTD)
Michael Tiefelsdorf (UTD)
Enki Yoo (State University of New York, Buffalo)

Guest lecture:
Arthur Getis (San Diego State University)
James LeSage (Texas State University, San Marcos)

Key software platform:
Spatial statistical routines implemented in the **R** system (see www.r-project.org)

Invitation to the NSF sponsored 2008 Summer Workshop on

Spatial Filtering with the Eigenvector Approach

Spatial filtering is a novel spatial statistical methodology to capture the inherent autocorrelation within geo-referenced observations.

This weeklong workshop introduces a group of young scholars and established professionals to the underlying concept of spatial filtering, its broad spectrum of applications and different model specifications. Researchers who are engaged in spatial-statistical data analysis from a wide range of disciplines – such as geography, demography, economics, planning, social and political sciences, criminology, applied mathematics and statistics, epidemiology, and ecology – will benefit from attending the workshop.

In essence, spatial filtering uses a set of spatial proxy variables, which usually are extracted as eigenvectors from an underlying spatial relationship matrix that ties the spatial objects together, and implants these vectors as control variables into a model. These control variables identify and isolate the stochastic spatial dependencies among observations, thus allowing model building to proceed as if the observations were independent. This permits applying standard linear and generalized linear models to spatially distributed data, to compare competing specifications of underlying relationship structures among spatial objects, to model local and global spatial heterogeneities, to capture network autocorrelation in spatial interaction flows, and to simplify autoregressive Bayesian model specifications.