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In Honor of Manfred M. Fischer

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In Honor of Manfred M. Fischer

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It is our privilege to bring this special issue honoring Manfred Fischer, a towering luminary in the field of Geography and Regional Science for the last four decades. His contributions to the discipline include over 300 articles, books, book chapters, and other publications as well as tireless service in many committees (Including International Geographical Union [IGU]), conference organizations and journal editorial and review boards. Manfred Fischer's prolific contributions in the area of *regional science*, is noteworthy since it included rigorous theoretical modeling particularly in the areas of regional and urban economics, housing, labor, transportation, innovation, and growth. This led to a rich network of outstanding scholarly networks between Fischer, Bahrenberg, Nijkamp, Folmer, Haag, Johansson, Suarez-Villa, Reggiani, and many others. His contributions in the fields of Geographic Information Systems (GIS), spatial econometrics, spatial analysis, and spatial statistics has resulted in over 200 publications and books that serve to illustrate his absolute mastery and wide intellectual grasp of prominent subject areas. His collaborators include many prominent experts such as Anselin, LeSage, Getis, and others. Fischer contributed to the growing field of geocomputation by tackling the problem of classification, spatial gravity models, and search and optimization using neural networks with his collaborators Gopal, Leung, and Staufer.

Manfred Fischer's work ethics and management is legendary. He is passionate about the discipline and is totally committed to serve in any capacity to improve its image. He is honest and is frank. In his review of presentations and articles, he calls it as he sees it. This style has resulted in many academic heated exchanges but resulted in rich improvement of manuscripts, presentation, and reviews. He has mentored many young scholars both in Austria and as a visiting professor to other institutions. We (Gopal and Rey) met Professor Fischer while he was a visiting professor at University of California, Santa Barbara. He has influenced our career paths in many ways. Hence, we are happy to put forth this special issue of the International Regional Science Review.

Manfred Fischer has received many honors and awards. He has been named as one of the fifteen most influential authors in regional science over the period 1990–1999, in Regional Science Publication Patterns in the 1990s. He is listed among the most cited scholars during the 1977–1989 and the 1990–2001 periods and

listed among the all-time intellectual leaders of regional science as well as being listed as top economic geographer in the German-speaking world (based on research output and citations), Institute for Geography, University Hanover, July 2007. He received the Fellows Award for outstanding contributions and dedicated leadership to the Field of Regional Science, 2006 (Regional Science Association International) amongst many other accolades.

The contributions to this journal represent an array of topics that reflect Manfred Fischer's contributions to the discipline. The first article examines a classical theme in regional science, why do regions differ? The next set of three articles examines labor markets, accessibility of networks, and regional planning using various models and techniques. The third set of articles is in the area of geocomputation.

The first article in this issue by Huaqun Li and Kingsley Haynes probes an important issue about regional disparity in China viewed though the lens of three major economic sectors, agriculture, manufacturing, and services between 1995 and 2004. The article demonstrates how spatial autocorrelation analysis can be used to assess shift-share components accounting for how economic change at the province level has been driven by national trends and by the change of industry mix as well as regional characteristics. In addition, this method identifies the extent to which a particular province outperforms or lags behind other regions. The spatial assessment of shift-share components highlights the importance of including spatial spillover effects in any regional planning.

The next article by four leading authorities Roberto Patuelli, Daniel Griffith, Michael Tiefelsdorf, and Peter Nijkamp, incorporates spatial filtering (decomposition of spatial weights matrix) and statistics to explore spatial effects of regional labor markets. The authors examine the significance of spatial effects in explaining German regional unemployment levels and consistency of some patterns over time. The authors also address the issue of statistical inference of spatial patterns. This article represents an alternative and improved approach to conventional spatial econometric modeling. The next article by Reggiani and Bucci examines dynamics of commuting accessibility using impedance functions to investigate behavioral patterns home-to-work commuters travel data between 439 German districts for two time periods. The article applies spatial-econometric approach to draw conclusion and highlights the importance of using network analysis popularized by Barabási. Jonathan Corcoran, Alan Murray, and Bob Stimson address an important issue in metropolitan regional planning, planning for sustainable future growth. They propose a multicriteria model for estimating scenarios of employment in the future by sector at a disaggregate scale under conditions of growth, assuming that jobs-housing balance will be important. The model is applied to examine smart growth strategies in Southeast Queensland region of Australia.

The third set of articles relates to geocomputation. Schmidt, Rey, and Skupin examine the topology in spherical Self-Organizing Maps (SOM), a type of unsupervised neural networks proposed by Kohonen in the 80s. Although SOM has many uses in many disciplines, its topological structure has not been well-exploited or

explored. Schmidt, Rey, and Skupin highlight the importance of overcoming the edge effect in traditional SOM lattice and develop new diagnostics to measure and visualize topology induced errors in SOM using a well-defined simulated dataset. The utility of this approach is to exploit the internal structure of SOM and unmask the "black box" structure of the neurons. The last article in this volume is by Hrishi Patel, Suchi Gopal, Les Kaufman, and their students. While GIS have proven useful in resource management and conservation efforts in many parts of the world, rarely has this technology been incorporated into the local management levels of developing countries due to cost and lack of Internet connections. The authors propose Marine Integrated Decision Analysis System (MIDAS) that is free, written using Java to be platform-independent that synthesizes three sets of variables. MIDAS serves as an inclusive platform for incorporating users' local knowledge in a spatially explicit manner that will ultimately improve and enhance conservation by educating and helping local users to better collaborate, communicate, and participate in conservation efforts.