Books (9)

- 2013 (with Y. Chun; 2nd) Spatial Statistics & Geostatistics. Thousand Oaks, CA: SAGE.
- 2011 (with J. Paelinck; 1st) *Non-standard Spatial Statistics and Spatial Econometrics*, Berlin: Springer-Verlag "Advances in GIScience Series."
- 2003 Spatial Autocorrelation and Spatial Filtering: Gaining Understanding through Theory and Scientific Visualization, Berlin: Springer-Verlag.
- 1999 (with L. Layne; 1st) A Casebook for Spatial Statistical Data Analysis: A Compilation of Analyses of Different Thematic Datasets, NY: Oxford University Press.
- 1997 (with C. Amrhein; 1st) *Multivariate Statistical Analysis for Geographers*, Englewood Cliffs, NJ: Prentice Hall.
- 1993 Spatial Regression Analysis on the PC: Spatial Statistics Using SAS, Washington, DC: Association of American Geographers "Resource Publications in Geography Series."
- 1991 (with C. Amrhein; 1st) Statistical Analysis for Geographers, Englewood Cliffs, NJ: Prentice Hall.
- 1988 Advanced Spatial Statistics, Dordrecht: Martinus Nijhoff.
- 1987 *Spatial Autocorrelation: A Primer*, Washington, D. C.: Assn. of American Geographers" Resource Publications in Geography Series" [source for a GRASS-GIS program to calculate autocorrelation statistics].

Edited Books (6)

- 1998 (with C. Amrhein and J.-M. Hurriot) Advances in Spatial Modelling and Methodology: Essays in Honor of Jean Paelinck, Dordrecht: Kluwer
- 1995 (with S. Arlinghaus) Practical Handbook of Spatial Statistics, Boca Raton, FL: CRC Press.
- 1990 Spatial Statistics: Past, Present, and Future, Ann Arbor, MI: Institute of Mathematical Geography.
- 1986 (with R. Haining) Transformations Through Space and Time, The Hague: Martinus-Nijhoff.
- 1983 (with A. Lea) Evolving Geographical Structures, The Hague: Martinus Nijhoff.
- 1981 (with R. MacKinnon) Dynamic Spatial Models, Alphen aan den Rijn: Sijthoff and Noordhoff.

Monographs (2)

- 1994 (with J. Newman) *Eliminating Hunger in Africa: Technical and Human Perspectives on Food Allocation*, Maxwell School of Citizenship and Public Affairs, Syracuse University—reproduction permission given to Copyright Clearing House in 2000.
- 1989 Simulating K=3 Christaller Central Place Structures: An Algorithm Using a Constant Elasticity of Substitution Consumption Function, Ann Arbor, MI: Institute of Mathematical Geography.

Journal Guest Editorships (4)

- 2014 (with A. Stein and S. Stehman) *Spatial Statistics*, special issue entitled "Revealing Intricacies in Spatial and Spatio-Temporal Data: Papers from the Spatial Statistics 2013 Conference."
- 2007 (with G. Christakos) *J. of Stochastic Environmental Research & Risk Assessment*; special issue about medical geography as a science of interdisciplinary knowledge synthesis under conditions of uncertainty
- 2006 Geographical Analysis: special issue about Poisson modeling of georeferenced counts data
- 1992 (with C. Weiss and C. Duguay) *The Operational Geographer*, 10 (2): 2-3; special issue about spatial data analysis

Publications in Major Refereed Journals (60 single authored; 75 joint authored; * denotes publication with student)

- 2014 (with Y. Chun; 1st) Spatial autocorrelation in spatial interactions models: geographic scale and resolution implications for network resilience and vulnerability, *Networks and Spatial Economics*, forthcoming.
- 2014 (with B. Jacob, L. Toe, S. Sanfo, S. Padgett-Vasquez, R. Tingueri, N. Mounkaila, L. Yaméogo, R.

- Novak, and T. Unnasch; 8th) Delineating autoregressive *Similium damnosum s.l.* larval habitat disturbances using the asymptotic behavior of the Durbin-Watson statistic, Eulerian logarithmic integrals and bivariate regression slope coefficients from a Moran's scatterplot, , *GIScience and Remote Sensing*, in press.
- 2014 (with B. Jacob, J. Mwangangi, C. Mbogo, and R. Novak; 2nd) Using an auto-Gaussian Jacobian term normalizing factor and a biparametric simultaneous autoregressive analyses for detecting negative spatial autocorrelation in an *Anopheline arabiensis* aquatic habitat model. *J. of Environmental Statistics*, in press.
- 2014 (with Y. Chun; 2nd) A quality assessment of eigenvector spatial filtering based parameter estimates for the normal probability model, *Spatial Statistics*, 10: 1-11.
- 2013 (with B. Jacob, R. de Alwiss, S. Caliskan, D. Gunawardena, and R. Novak; 4th) A random-effects regression specification using a local intercept term and a global mean for forecasting malarial prevalence, *American J. of Computational and Applied Mathematics*, 3(2): 49-67.
- 2013 Better articulating normal curve theory for introductory mathematical statistics students: power transformations and their back-transformations, *The American Statistician*, 67: 157-169.
- 2013 Establishing qualitative geographic sample size in the presence of spatial autocorrelation, *Annals* of the Association of American Geographers, 103: 1107-1122.
- 2013 (with M. Fischer; 1st) Constrained variants of the gravity model and spatial dependence: Model specification and estimation issues, *J. of Geographical Systems*, 15: 291-317.
- 2013 (with B. Jacob, R. Novak, L. Toe, M. Sanfo, T. Lakwo, P. Habomugisha, M. Katabarwa, and T. Unnasch; 5th) Validation of a remote sensing model to identify *Simulium damnosum* s.l. breeding sites in sub-Saharan Africa, *PLoS Neglected Tropical Diseases*, 7(7): e2343; doi/10.1371/journal.pntd.0002342.
- 2013 Estimating missing data values for georeferenced Poisson counts, *Geographical Analysis*, 45: 259-284.
- 2013 (with Y. Chun, M. O'Kelly, B. Berry, R. Haining, and M-P. Kwan; 1st) *Geographical Analysis*: its first 40 years, *Geographical Analysis*, 45: 1-27.
- 2012 Selected challenges from spatial statistics for spatial econometricians, *Comparative Economic Research. Central and Eastern Europe*, 15(4): 71-85.
- 2012 (with B. Jacob, L.Toe, M. Sanfo, A. Afriyie, M. Ibrahim, and R. Novak; 6th) Quasi-likelihood techniques in a logistic regression equation for identifying *Simulium damnosum s.l.* larval habitats intra-cluster covariates in Togo. *Geo-spatial Information Science*, 15: 117-133.
- 2012 (with S. Arlinghaus; 1st) Urban compression patterns: fractals and non-Euclidean geometries inventory and prospect, *Quaestiones Geographicae*, 32(2): 21-28.
- 2012 Spatial statistics: a quantitative geographer's perspective, Spatial Statistics, 1: 3-15.
- 2012 (with R. Patuelli, N. Schanne, and P. Nijkamp; 3rd) Persistence of regional unemployment: application of a spatial filtering approach to local labor markets in Germany, *J. of Regional Science*, 52: 300-323.
- 2012 (with A. Hunt, D. Johnson, and S. Zitoon; 3rd) Citywide distribution of lead and other elements in soils and indoor dusts in Syracuse, NY, *Applied Geochemistry*, 27: 985-994.
- 2012 (with I. Vojnovic and J. Messina; 1st) Distances in residential space: implications from estimated metric functions for minimum path distances, *GIScience and Remote Sensing*, 49: 1-30.
- 2012 Space, time, and space-time eigenvector filter specifications that account for autocorrelation, *Estadística Española*, 54 (#177), 7-34.
- 2011 Positive spatial autocorrelation impacts on attribute variable frequency distributions, *Chilean J. of Statistics*, 2 (2): 3-28.
- 2011 *(with U. Luhanga; 1st) Approximating the inertia of the adjacency matrix of a connected planar graph that is the dual of a geographic surface partitioning, *Geographical Analysis*, 43: 383-402.
- 2011 (with B. Jacob, J. Mwangangi, D. Gathings, C. Mbogo, and R. Novak; 2nd) A cartographic analysis using spatial filter logistic model specifications for implementing mosquito control in Kenya, *Urban Geography*, 32: 263-300.

- 2011 (with R. Patuelli, M. Tiefelsdorf, P. Nijkamp; 2nd) Spatial filtering and eigenvector stability: space-time models for German unemployment data, *International Regional Science Review*, 34: 253-280.
- 2011 (with Y. Chun; 2nd) Modeling network autocorrelation in space-time migration flow data: An eigenvector spatial filtering approach, *Annals*, AAG, 101: 523-536.
- 2011 *(with M. Hernandez, R. Chowdhury, L. E Fleming; 4th) Colorectal cancer and socioeconomic status in Miami-Dade County: neighborhood-level associations before and after the Welfare Reform Act, *Applied Geography*, 31: 1019-1025.
- 2011 Visualizing analytical spatial autocorrelation components latent in spatial interaction data: an eigenvector spatial filter approach, *Computers, Environment and Urban Systems*, 35: 140-149.
- 2011 (with B. Jacob, J. Morris, E. Caamano, and R. Novak; 4th) Geomapping generalized eigenvalue frequency distributions for predicting prolific Aedes albopictus and Culex quinquefasciatus habitats based on spatiotemporal field-sampled count data, *Acta Tropica*, 117: 61-68.
- 2010 Modeling spatio-temporal relationships: retrospect and prospect, *J. of Geographical Systems*, 12: 111-123.
- 2010 (with B. Jacobs, F. Krapp, M. Ponce, E. Gotuzzo, and R. Novak; 5th). Accounting for autocorrelation in multi-drug resistant tuberculosis predictors using a set of parsimonious orthogonal eigenvectors aggregated in geographic space, *Geospatial Health*, 4: 201-217.
- 2010 (with B. Jacob, J. Mwangnagi, C. Mbogo, and R. Novak; 2nd). Uniform convergence of ergodic Markov chains using Gaussian quadratures in SAS PROC NLMIXED for calculating marginal likelihoods in space time-varying coefficients of urban *Anopheles gambiae s.l.* aquatic habitats, *Acta Paristology of China*, 14: 41-53.
- 2010 The Moran Coefficient for non-normal data, *J. of Statistical Planning and Inference*, 140: 2980-2990.
- 2010 Some simplifications for the Expectation-Maximization (EM) algorithm: the linear regression model case, *InterStat*, March article 2 (http://interstat.statjournals.net/YEAR/2010/abstracts/1003002.php, http://interstat.statjournals.net/YEAR/2010/articles/1003002.pdf), 23 pp.
- 2010 (with G. Arbia; 1st) Detecting negative spatial autocorrelation in georeferenced random variables, *International J. of Geographical Information Science*, 24: 417-437.
- 2010 (with G. Heuvelink; 2nd) Space-time geostatistics for geography: a case study of radiation monitoring across parts of Germany, *Geographical Analysis*, 42: 161-179.
- 2010 An analytical perspective on sporting events attendance: the 2007-08 US NCAA college bowl games, *Applied Geography*, 30: 203-209.
- 2009 (with J. Li and D. Wong; 3rd) Exploring and simulating the regularities in intra-urban population density structure, *Annals of GIS*, 15: 11-22.
- 2009 (with B. Jacob, E. Muturi, E. Caamano, J. Githure, and R. Novak; 2nd) An heteroskedastic error covariance matrix estimator using a first-order conditional autoregressive Markov simulation of ecological sampled Anopheles arabiensis aquatic habitat covariates, *Malaria Journal*, 8: 216, 16 pp. (online: doi:10.1186/1475-2875-8-216).
- 2009 (with D. Johnson, A. Hunt; 1st) The geographic distribution of metals in urban soils: the case of Syracuse, NY, *GeoJournal*, 74: 275-291.
- 2009 *(with D. Johnson, A. Hunt, J. Hager, J. Brooks, H. Stella-Levinsohn, A. Lanciki, R. Lucci, D. Prokhorova, and S. Blount; 3rd) Geographic patterns of non-carpeted floor dust loading in Syracuse, New York (USA) homes, *Environmental Geochemistry and Health*, 31: 353-363.
- 2009 Modeling spatial autocorrelation in spatial interaction data: empirical evidence from 2002 Germany journey-to-work flows, *J. of Geographical Systems*, 11: 117-140.
- 2009 (with R. Haining and J. Law; 3rd) Modelling small area counts in the presence of overdispersion and spatial autocorrelation, *Computational Statistics & Data Analysis*, 53: 2923-2937.
- 2009 (with J. Paelinck; 1st) Specifying a joint space- and time-lag using a bivariate Poisson distribution, *J. of Geographical Systems*, 11: 23-36.
- 2009 (with B. Jacob, E. Muturi, E. Caamano, J. Shililu, J. Githure, and R. Novak; 2nd) Describing

- Anopheles arabiensis aquatic habitats in two riceland agro-ecosystems in Mwea, Kenya using a negative binomial regression model with a non-homogenous mean, Acta Tropica, 109 (1): 17-26.
- 2008 Ethical considerations in geographic research: what especially graduate students need to know, *Ethics, Place, and Environment,* 11: 237-253.
- 2008 A comparison of four model specifications for describing small heterogeneous space-time datasets: sugar cane production in Puerto Rico, 1958/59-1973/74, *Papers in Regional Science*, 87: 341-356.
- 2008 Spatial filtering-based contributions to a critique of geographically weighted regression (GWR), *Environment and Planning A*, 40: 2751-2769.
- 2008 (with M. Fischer; 2nd) Modelling spatial autocorrelation in spatial interaction data: An application to patent data in the European Union, *J. of Regional Science*, 48: 969-989.
- 2008 Geographic sampling of urban soils for contaminant mapping: how many samples and from where, *Environmental Geochemistry and Health*, 30: 495-509.
- 2008 *(with A. Hunt, D. Johnson, J. Brooks; 4th) Risk remaining from fine particle contaminants after vacuum cleaning of hard floor surfaces, *Environmental Geochemistry and Health*, 30: 597-611.
- 2008 (with B. Jacob and R. Novak; 2nd) Decomposing malaria mosquito aquatic habitat data into spatial autocorrelation eigenvectors in a SAS/GIS[®] module, *Transactions in GIS*, 12: 341-364.
- 2008 (with B. Jacob, J. Gunter, E. Muturi, E. Caamano, J. Shililu, J. Githure, J. Regens, and R. Novak; 2nd) A spatial filtering specification for an auto-negative binomial model of *Anopheles arabiensis* aquatic habitat, *Transactions in GIS*, 12: 515-539.
- 2008 (with B. Berry and M. Tiefelsdorf; 2nd) From spatial analysis to geospatial science, *Geographical Analysis*, 40: 229-238.
- 2007 Spatial structure and spatial interaction: 25 years later, *The Review of Regional Studies*, 37, #1: 28-38.
- 2007 *(with M. Millones, M. Vincent, D. Johnson, and A. Hunt; 1st) Impacts of positional error on spatial regression analysis: A case study of address locations in Syracuse, NY, *Transactions in GIS*, 11: 655-679.
- 2007 (with W. Thayer and G. Diamond; 2nd) Geography of asbestos contamination near the World Trade Center site, *Stochastic Environmental Research & Risk Assessment*, 21: 461-471.
- 2007 (with M. Tiefelsdorf; 2nd) Semi-parametric filtering of spatial autocorrelation: the eigenvector approach, *Environment and Planning A*, 39: 1193-1221.
- 2007 (with D. Wong; 1st) Modeling population density across major U.S. cities: a polycentric spatial regression approach, *J. of Geographical Systems*, 9: 53-75.
- 2007 (with J. Paelinck; 1st) An equation by any other name is still the same: on spatial statistics and spatial econometrics, *Annals of Regional Science*, 41: 209-227.
- 2006 (with A. Hunt and D. Johnson; 3rd) Mass transfer of soil indoors by track-in on footwear, *The Science of the Total Environment*, 370: 360-371.
- 2006 Hidden negative spatial autocorrelation, J. of Geographical Systems, 8: 335-355.
- 2006 (with P. Peres-Neto; 1st) Spatial modeling in ecology: the flexibility of eigenfunction spatial analyses, *Ecology*, 87: 2603-2613.
- 2006 (with R. Haining; 1st) Beyond mule kicks: the Poisson distribution in geographical analysis, *Geographical Analysis*, 38: 123-139.
- 2006 Assessing spatial dependence in count data: Winsorized and spatial filter specification alternatives to the auto-Poisson model, *Geographical Analysis*, 38: 160-179.
- 2005 (with B. Jacob, K. Arheart, C. Mbogo, A. Githeko, J. Regens, J. Githure, R. Novak, and J. Beier; 3rd) Evaluation of environmental data for identification of *anopheles* (diptera: culicidae) aquatic larval habitats in Kisumu and Malindi, Kenya, *J. of Medical Entomology*, 42: 751–755.
- 2005 Effective geographic sample size in the presence of spatial autocorrelation, *Annals*, Association of American Geographers, 95: 740-760.
- 2005 A comparison of four analytical disease mapping techniques as applied to West Nile Virus in the coterminous United States, *International Journal of Health Geographics*, 4: 18 (14 pp).

- *(with D. Johnson, J. Hager, A. Hunt, S. Blount, S. Ellsworth, J. Hintz, R. Lucci, A. Mittiga, D. Prokhorova, L. Tidd, M. Millones, and M. Vincent; 4th) Field methods for mapping urban metal distributions in house dusts and surface soils of Syracuse, NY, USA, *Science in China* (Series C: Life Sciences), 48 (supplement): 192-199.
- 2004 Faster maximum likelihood estimation of very large spatial autoregressive models: an extension of the Smirnov-Anselin result, *J. of Statistical Computation and Simulation*, 74: 855-866.
- 2004 Distributional properties of georeferenced random variables based on the eigenfunction spatial filter, *J. of Geographical Systems*, 6: 263-288.
- 2004 A spatial filtering specification for the auto-logistic model, *Environment and Planning A*, 36: 1791-1811.
- 2004 Extreme eigenfunctions of adjacency matrices for planar graphs employed in spatial analyses, *Linear Algebra & Its Applications*, 388: 201-219.
- 2003 *(with D. Wong and T. Whitfield; 1st) Exploring relationships between the global and regional measures of spatial autocorrelation, *J. of Regional Science*, 43: 683-710.
- 2003 *(with W. Thayer, P. Goodrum, G. Diamond and J. Hassett; 2nd) Application of geostatistics to risk assessment, *Risk Analysis: An International Journal*, 23: 945-960.
- 2003 Using estimated missing spatial data with the 2-median model, *Annals of Operations Research*, 122: 233-247.
- 2003 (with G. Arbia and R. Haining; 2nd) Spatial error propagation when computing linear combinations of spectral bands: the case of vegetation indices, *Environmental and Ecological Statistics*, 10: 375-396; reply to commentary, 399-400.
- 2002 The geographic distribution of soil lead concentration: description and concerns, *URISA Journal*, 14: 5-15.
- 2002 A spatial filtering specification for the auto-Poisson model, *Statistics & Probability Letters*, 58: 245-251.
- 2002 Modeling spatial dependence in high spatial resolution hyperspectral data sets, *J. of Geographical Systems*, 4: 43-51.
- 2002 (with A. Getis; 2nd) Comparative spatial filtering in regression analysis, *Geographical Analysis*, 34: 130-140.
- 2000 Eigenfunction properties and approximations of selected incidence matrices employed in spatial analyses, *Linear Algebra & Its Applications*, 321: 95-112.
- 2000 *(with Z. Zhang; 2nd) Integrating GIS components and spatial statistical analysis in DBMS, *International J. of Geographical Information Science*, 14: 543-566.
- 2000 A linear regression solution to the spatial autocorrelation problem, *J. of Geographical Systems*, 2: 141-156.
- 1999 *(with Z. Zhang; 1st) Computational simplifications needed for efficient implementation of spatial statistical techniques in a GIS, *J. of Geographic Information Science*, 5: 97-105.
- 1999 (with G. Arbia and R. Haining; 2nd) Error propagation modelling in raster GIS: addition and ratioing operations, *Cartography & Geographic Information Systems*, 26: 297-315.
- 1999 Statistical and mathematical sources of regional science theory: map pattern analysis as an example, *Papers in Regional Science*, 78: 21-45.
- 1999 (with M. Tiefelsdorf and B. Boots; 2nd) A variance stabilizing coding scheme for spatial link matrices, *Environment and Planning A*, 31: 165-180.
- 1998 *(with P. Doyle, D. Wheeler, and D. Johnson; 1st) A Tale of two swaths: urban childhood blood lead levels across Syracuse, NY, *Annals*, Assn. of American Geographers, 88: 640-665.
- 1998 (with F. Lagona; 1st) On the quality of likelihood-based estimators in spatial autoregressive models when the data dependence structure is misspecified, *J. of Statistical Planning and Inference*, 69: 153-174.
- 1998 Provincial-level spatial statistical modelling of the change in per capita disposable family income in Spain, 1975-1983, *Cybergeo*, http://cybergeo.revues.org/385
- 1998 (with G. Arbia and R. Haining; 2nd) Error propagation modelling in raster GIS: overlay operations,

- International J. of Geographical Information Systems, 12: 145-167.
- 1997 *(with Z. Zhang; 2nd) Developing user-friendly spatial statistical analysis modules for GIS: an example using ArcView, *Computers, Environment and Urban Systems*, 21: 5-29.
- 1997 Using estimated missing spatial data in obtaining single facility location-allocation solutions, *l'Espace Géographique*, 26: 173-182.
- 1996 Spatial autocorrelation and eigenfunctions of the geographic weights matrix accompanying georeferenced data, *The Canadian Geographer*, 40: 351-367.
- 1996 *(with D. Johnson and K. McDade; 3rd) Seasonal variation in pediatric blood lead levels in Syracuse, NY, *Environmental Geochemistry and Health*, 18 (#2): 81-88.
- 1995 *(with A. Sone; 1st) Trade-offs associated with normalizing constant computational simplifications for estimating spatial statistical models, *J. of Statistical Computation and Simulation*, 51: 165-183.
- 1994 (with R. Haining and G. Arbia; 1st) Heterogeneity of attribute sampling error in spatial data sets, *Geographical Analysis*, 26: 300-320.
- 1994 (with S. DeGloria and L. Herrington; 1st) Characterizing geographic information and analysis needs in New York State: an overview and assessment, *Cartography and Geographic Information Systems*, 21: 69-80.
- 1993 (with F. Csillag; 1st) Exploring relationships between semi-variogram and spatial autoregressive models, *Papers in Regional Science*, 72: 283-296.
- 1993 *(with C. Cordy; 2nd) Efficiency of least squares estimators in the presence of spatial autocorrelation, *Communications in Statistics*, Series B, 22: 1161-1179.
- 1993 Advanced spatial statistics for analyzing and visualizing geo-referenced Data, *International J. of Geographical Information Systems*, 7: 107-123.
- 1992 A spatially adjusted N-way ANOVA model, Regional Science & Urban Economics, 22: 347-369.
- 1992 Simplifying the normalizing factor in spatial autoregressions for irregular lattices, *Papers in Regional Science*, 71: 71-86.
- 1992 Teaching spatial statistics to geographers using MINITAB, *J. of Geography in Higher Education*, 16: 45-59.
- 1992 What is spatial autocorrelation? reflections on the past 25 years of spatial statistics, *l'Espace Géographique*, 21: 265-280.
- 1992 (Goodchild, Haining, Wise, et al.) Integrating GIS and spatial data analysis: problems and possibilities, *International J. of Geographical Information Systems*, 6: 407-423.
- 1990 (with V. Tikunov; in Russian; 2nd) Comparative analysis of algorithms for modelling typological maps contents, *Geodesy and Cartography*, No. 8, 39-43.
- 1990 Supercomputing and spatial statistics: a reconnaissance, *The Professional Geographer*, 42: 481-492.
- 1989 (with R. Haining and R. Bennett; 1st) Statistical analysis of spatial data in the presence of missing observations: an application to urban census data, *Environment & Planning* A, 21: 1511-1523.
- 1989 (with R. Haining and R. Bennett; 2nd) Maximum likelihood estimation with missing spatial data and with an application to remotely sensed data, *Communications in Statistics*, 18: 1875-1894.
- 1989 Pure error and lack-of-fit regression diagnostics in the presence of spatial dependence, *Sistemi Urbani*, (#2) 139-151.
- 1988 (with L. Anselin; 2nd) Do spatial effects really matter in regression analysis?, *Papers* of the Regional Science Association, 65: 11-34.
- 1988 Estimating spatial autoregressive model parameters with commercial statistical packages, *Geographical Analysis*, 20: 176-186.
- 1987 Toward a theory of spatial statistics: another step forward, *Geographical Analysis*, 19: 69-82.
- 1987 Teaching spatial autocorrelation by simulation, *J. of Geography in Higher Education*, 11: 143-153; *reprinted* in D. Unwin and C. Wood (eds.), *Readings in Computer Assisted Learning in Geography*. Leicester, UK: Computers in Teaching Initiative Center for Geography, 1990, pp. 155-165.
- 1986 *(with M. O'Neill, W. O'Neill, L. Leifer, R. Mooney; 1st) Shape indices: useful measures or red

- herrings?, The Professional Geographer, 38: 263-270.
- 1986 Central place structures using constant elasticity of consumption demand cones: part I, the infinite plane, *Economic Geography*, 62: 74-84.
- 1985 An evaluation of correction techniques for boundary effects in spatial statistical analysis: contemporary methods, *Geographical Analysis*, 17: 81-88.
- 1984 (with R. Bennett and R. Haining; 3rd) The problem of missing data on spatial surfaces, *Annals*, Association of American Geographers, 74: 138-156.
- 1984 Re-examining the question "Are locations unique?", Progress in Human Geography, 8: 82-94.
- 1984 (with R. Bennett and R. Haining; 2nd) A statistical approach to the problem of missing spatial data using a first-order Markov model, *The Professional Geographer*, 36: 338-345.
- 1983 The boundary value problem in spatial statistical analysis, J. of Regional Science, 23: 377-387.
- 1983 (with R. Haining and R. Bennett; 2nd) Simulating Two dimensional autocorrelated surfaces, *Geographical Analysis*, 15: 247-255.
- 1983 *(with C. Amrhein; 1st) An evaluation of correction techniques for boundary effects in spatial statistical analysis: traditional methods, *Geographical Analysis*, 15: 352-360.
- 1982 Dynamic characteristics of spatial economic systems, *Economic Geography*, 58: 178-196.
- 1982 Geometry and spatial interaction, Annals, Association of American Geographers, 72: 332-346.
- 1982 A generalized Huff model, Geographical Analysis, 14: 135-144.
- 1981 Modelling urban population in a multi-centered city, J. of Urban Economics, 9: 298-310.
- 1981 Evaluating the transformation from a monocentric to a polycentric city, *The Professional Geographer*, 33: 189-196.
- 1980 (with K. Jones; 1st) Explorations into the relationship between spatial structure and spatial interaction, *Environment and Planning A*, 12: 187-201.
- 1980 Towards a theory of spatial statistics, Geographical Analysis, 12: 325-339.
- 1979 Urban dominance, spatial structure and spatial dynamics: some theoretical conjectures and empirical implications, *Economic Geography*, 55: 95-113.
- 1978 A spatially adjusted ANOVA model, Geographical Analysis, 10: 296-301.
- 1976 (with E. Sheppard and L. Curry; 2nd) A final comment on mis-specification and autocorrelation in those gravity parameters, *Regional Studies*, 10: 337-339.
- 1976 Spatial structure and spatial interaction: a review, Environment and Planning A, 8: 731-740.
- 1975 (with L. Curry and E. Sheppard; 2nd) Those gravity parameters again, *Regional Studies*, 9: 289-296.
- 1975 A note on spatial autocorrelation, *The Professional Geographer*, 27: 470-474.

Invited encyclopedia entries (10 single authored; 3 joint authored)

- 2014 Spatial Weights, in D. Richardson, N. Castree, M. Goodchild, A. Kobayashi, W. Liu, and R. Martson (eds.), *International Encyclopedia of Geography*. NY: Wiley, forthcoming
- 2014 (with Chun; 1st) Spatial Autocorrelation and Eigenvector Spatial Filtering, in M. Fischer and P. Nijkamp (eds.), *Handbook of Regional Science*. Berlin: Springer-Verlag, pp. 1477-1507.
- 2010 "Error propagation," in B. Warf (ed.), *Encyclopedia of Geography*. Thousand Oaks, CA: SAGE, pp. 1011-1012.
- 2010 "Spatial filtering," Chapter B.5 in A. Getis and M. Fischer (eds.), *Handbook of Applied Spatial Analysis*. Berlin: Springer-Verlag, pp. 301-318.
- 2010 (with M. Rura, 2nd) "Spatial statistics in SAS," Chapter A.2 in A. Getis and M. Fischer (eds.), *Handbook of Applied Spatial Analysis*. Berlin: Springer-Verlag, 43-52.
- 2009 "Methods: spatial autocorrelation," in R. Kitchin and N. Thrift (eds.), *International Encyclopedia of Human Geography*. NY: Elsevier, pp. 396-402.
- 2009 "Methods: spatially autoregressive models," in R. Kitchin and N. Thrift (eds.), *International Encyclopedia of Human Geography*. NY: Elsevier, pp. 308-316
- 2008 "Nonstationarity," in K. Kemp (ed.), *Encyclopedia of Geographic Information Science*. Thousand Oaks, CA: SAGE, pp. 319-320.

- 2008 "Regionalized variables," in K. Kemp (ed.), *Encyclopedia of Geographic Information Science*. Thousand Oaks, CA: SAGE, pp. 363-365.
- 2008 "Spatial filtering," in K. Kemp (ed.), *Encyclopedia of Geographic Information Science*. Thousand Oaks, CA: SAGE, pp. 413-415.
- 2006 "Geographic Information Systems," in S. Kotz, C. Read, N. Balakrishnan, and B. Vidakovic (eds.), *Encyclopedia of Statistical Sciences*, 2nd ed., Vol. 4, pp. 2764-2771; an earlier version appeared in S. Kotz, C. Read, and D. Banks (eds.), updated volumes of *Encyclopedia of Statistical Sciences*, Vol. 3, NY: Wiley, 1999, pp. 268-269.
- "Spatial autocorrelation," in K. Kempf-Leonard (ed.), *Encyclopedia of Social Measurement*, Vol.3. San Diego, CA: Academic Press (Elsevier), pp. 581-590.
- 2005 (with A. Lea) "Locational decision making," in K. Kempf-Leonard (ed.), *Encyclopedia of Social Measurement*, Vol. 2. San Diego, CA: Academic Press (Elsevier), pp. 559-575.

Contributions to and/or Chapters in Books (15 single authored; 7 joint authored)

- 2014 (with M. Millones, J. Rogan, B. Turner II; 4th) Redes productivas de madera y uso de tierra en la peninsula de Yucatan. In *Perspectivas Socio-Ecológicas, Actividades Productivas y Cambios Globales en América Latina*, edited by J. Postigo y K. Young. Lima: Insittuto de Estudios Peruanos, pp. ****.
- 2013 (with Chun; 1st) Spatial analysis of census mail response rates: 1990-2010. In *Space-Time Integration in Geography and GIScience: Research Frontiers in the US and China*, edited by M-P. Kwan, D. Richardson, D. Wang, and C. Zhou. NY: Springer, pp. 145-156.
- 2012 (with G. Heuvelink, T. Hengl and S. Melles; 2nd). "Sampling design optimization for space-time kriging." In *Spatio-Temporal Design: Advances in Efficient Data Acquisition*, edited by W. Mueller and J. Mateu. NY: Wiley, pp. 207-230.
- *(with R. Patuelli, M. Tiefelsdorf, and P. Nijkamp; 2nd). "Spatial Filtering Methods for Tracing Space-Time Developments in an Open Regional System: Experiments with German Unemployment Data." In *Societies in Motion: Regional Development, Industrial Innovation and Spatial Mobility*, edited by A. Frenkel, P. Nijkamp and P. McCann. Cheltenham Northampton: Edward Elgar, pp. 247-268.
- 2011 (with B. Jacob, J. Morris, E. Cammano, and R. Novak; 4th) "Testing for first-order autocorrelation error in a residual regression analysis of spatiotemporal-sampled *Culex quinquefasciatus* and *Aedes albopictus* habitat observational covariates using Durbin-Watson statistic and sub-meter resolution satellite explanatory predictors," in Masa Vidovic (ed.), *Encephalitis*. NY: In-Tech Publication, pp 111-126. http://www.intechweb.org/
- 2010 "Spatial filtering and missing georeferenced data imputation: a comparison of the Getis and Griffith methods," in L. Anselin and S. Rey (eds.), *Perspectives on Spatial Data Analysis*. Berlin: Spriger-Verlag, pp. 227-234.
- 2009 "Spatial autocorrelation in spatial interaction: complexity-to-simplicity in journey-to-work flows," in P. Nijkamp and A. Reggiani (eds.), *Complexity and Spatial Networks: In Search of Simplicity*. Berlin: Springer-Verlag, pp. 221-237.
- 2009 "Quick but not so dirty ML estimation of spatial autoregressive models," in M. Sonis and G. Hewings (eds.), *Tool Kits in Regional Science*. Berlin: Springer-Verlag, pp. 215-241.
- 2000 "Seemingly invisible farms in southwestern Pennsylvania," in K. Patrick and J. Scarpaci (eds.), *A Geographic Perspective of Pittsburgh and the Alleghenies: From Precambrian to Post-industrial*, Association of American Geographers, pp. 175-181.
- 1998 (with C. Amrhein) "Introduction: Focus on Jean Paelinck," in D. Griffith, C. Amrhein and J-M. Huriot (eds.), *Advances in Spatial Modelling and Methodology: Essays in Honor of Jean Paelinck*, Dordrecht: Kluwer, pp. 1-6.
- 1998 (with J. Paelinck and R. van Gastel) "The Box-Cox transformation: computational and interpretation features of the parameters," in D. Griffith, C. Amrhein and J-M. Huriot (eds.), Advances in Spatial Modelling and Methodology: Essays in Honor of Jean Paelinck, Dordrecht:

- Kluwer, pp. 45-56.
- "Spatial statistical analysis and GIS: exploring computational simplifications for estimating the neighborhood spatial forecasting model," in P. Longley and M. Batty (eds.), *Spatial Analysis: Modelling in a GIS Environment*, Longman GeoInformation, pp. 255-268.
- 1996 "Introduction: the need for spatial statistics," in S. Arlinghaus and D. Griffith (eds.), *Practical Handbook of Spatial Statistics*, Boca Raton, FL: CRC Press, pp. 1-15.
- "Some guidelines for specifying the geographic weights matrix contained in spatial statistical models," in S. Arlinghaus and D. Griffith (eds.), *Practical Handbook of Spatial Statistics*, Boca Raton, FL: CRC Press, pp. 65-82.
- 1996 (with A. Can) "Spatial statistical/econometric versions of simple urban population density models," in S. Arlinghaus and D. Griffith (eds.), *Practical Handbook of Spatial Statistics*, Boca Raton, FL: CRC Press, pp. 231-249.
- "The general linear model and spatial autoregressive models," in L. Anselin and R. Florax (eds.), *New Directions in Spatial Econometrics*, Berlin: Springer-Verlag, 1995, pp. 273-295.
- Which spatial statistics techniques should be converted to GIS functions? in M. Fischer and P. Nijkamp (eds.), *Geographic Information Systems*, *Spatial Modelling and Policy Evaluation*, Berlin: Springer-Verlag, pp. 103-114.
- 1992 Model identification for estimating missing values in space-time data series: monthly inflation in the U.S. Urban System, 1977-1990, in G. Haag, U. Mueller, and K. Troitzsch (eds.), *Economic Evolution and Demographic Change: Formal Models in Social Sciences*, Berlin: Springer-Verlag, pp. 192-218.
- 1990 A numerical simplification for estimating parameters of spatial autoregressive models, in D. Griffith (ed.), *Spatial Statistics: Past, Present, and Future*, Ann Arbor, MI: Institute of Mathematical Geography, pp. 185-195.
- 1984 Theory of spatial statistics, in C. Willmott and G. Gaile (eds.), *Spatial Statistics and Models*, Dordrecht, The Netherlands: R. Reidel, pp. 3-15.
- Measuring the arrangement property of a system of areal units generated by partitioning a planar surface, in G. Bahrenberg, M. Fischer and P. Nijkamp (eds.), *Recent Developments in Spatial Analysis: Methodology, Measurement, Models*, Aldershot, UK: Gower, pp. 191-200.
- 1982 Geographic infrastructure and numerical spatial analysis, in *Spatial-Economic Structures of the Far East*, Vladivostok: USSR Academy of Sciences, pp. 93-103.

Conference Proceedings (11 single authored; 14 joint authored)

- 2012 (with Heuvelink; 1st) Chapter 1: Deriving space-time variograms from space-time autoregressive (STAR) model specifications, in A. Yeh, J. Shi, Y. Leung, and C. Zhou (eds.), *Advances in Spatial Data Handling and GIS*, pp. 3-14. Berlin: Springer Verlag.
- Positive spatial autocorrelation, mixture distributions, and geospatial data histograms, in Y. Leung, B. Lees, C. Chen, C. Zhou, and D. Guo (eds.), *Proceedings* of the Spatial Data Mining and Geographical Knowledge Services (ICSDM) 2011 IEEE International Conference, Fuzhou, China, June 29-July 1. Beijing: IEEE, Inc., pp. 1-6; http://ieeexplore.ieee.org/xpl/mostRecentIssue.jsp?punumber=5958522.
- 2010 (with R. Haining; 1st) Analyzing small geographic area datasets containing values having high levels of uncertainty, in N. Tate and P. Fisher (eds.), *Accuracy 2010*, Proceedings of the 9th International Symposium on Spatial Accuracy Assessment in Natural Resources and Environmental Sciences (University of Leicester, 20-23 July), Leicester, UK: MPG Books Group, pp. 289-292.
- 2008 Spatial autocorrelation and random effects in digitizing error, in J. Zhang and M. Goodchild (eds.), *Spatial Uncertainty*, vol I, Proceedings of the 8th International Symposium on Spatial Accuracy Assessment in Natural Resources and Environmental Sciences, Shanghai, China: World Academic Press, pp. 94-102.
- 2006 Statistical efficiency of model-informed geographic sampling designs, in C. Mário and M. Painho

- (eds.), *Proceedings of Accuracy 2006*, Proceedings of the 7th International Symposium on Spatial Accuracy Assessment in a Natural Resources and Environmental Sciences, Lisboa, Portugal: Instituto Geográfico Português, pp. 91-98.
- 2002 (with S. McMaster; 1st) Spatial statistical evaluation of a forestry suitability index: assessing uncertainty in spatial decision making, in G. Hunter and K. Lowell (eds.), *Accuracy 2002*, Proceedings of the 5th International Symposium on Spatial Accuracy Assessment in Natural Resources and Environmental Sciences, Melbourne, AU: RMIT U., pp. 522-530.
- 2000 (with G. Arbia and R. Haining) Error propagation effects in aggregated spatial data with location error, in G. Heuvelink and M. Lemmens (eds.), *Accuracy* 2000, Proceedings of the 4th International Symposium on Spatial Accuracy Assessment in Natural Resources and Environmental Sciences, Delft, NL: Delft U. Press, pp. 261-266.
- 2000 Spatial statistical reflections on an area frame sampling design for collecting agricultural statistics in South Africa, *Proceedings* of the RSAI/Port Elizabeth Technikon Symposium in South Africa on: Challenges for Integrated Regional Development: International & South African Experiences, Port Elizabeth, South Africa: http://www.petech.ac.za/RegDev/html/Paper-Griffith.htm.
- 1999 (with G. Arbia and R. Haining) Uncertainty and error propagation in map analyses involving arithmetic and overlay operations: inventory and prospects, in K. Lowell and A. Jaton (eds.), *Spatial Accuracy Assessment: Land Information Uncertainty in Natural Resources*, Ann Arbor Press pp. 11-25
- 1999 *(with P. Fellows) Pixels and eigenvectors: classification of LANDSAT TM imagery using spectral and locational information, in K. Lowell and A. Jaton (eds.), *Spatial Accuracy Assessment: Land Information Uncertainty in Natural Resources*, Ann Arbor Press, pp. 309-317.
- 1997 *(with L. Layne) Uncovering relationships between geo-statistical and spatial autoregressive models, in the 1996 *Proceedings on the Section on Statistics and the Environment*, American Statistical Association, pp. 91-96.
- *(with L. Layne and P. Doyle) Further explorations of relationships between semi-variogram and spatial autoregressive models, in H. Mowrer, R. Czaplewski and R. Hamre (eds.), *Spatial Accuracy in Natural Resource and Environmental Sciences: Second International Symposium.* Ft. Collins CO: Rocky Mountain Forest and Range Experiment Station, General Technical Report RM-GTR-277, pp. 147-154.
- 1994 (with C. Amrhein) Errors in spatial data bases: a summary of results from several research projects, in R. Congalton (ed.), *International Symposium on the Spatial Accuracy of Natural Resource Data Bases*. Bethesda, MD: American Society for Photogrammetry & Remote Sensing, pp. 214-226.
- *(with D. Long, S. DeGloria, G. Carlson, and G. Nielsen) Spatial regression analysis of crop and soil variability within an experimental research field, in P. Robert et al (eds.), *Proceedings* of the First Workshop on Soil Specific Crop Management, Minneapolis, MN, April 14-16, 1992. Madison, WI: ASA-CSSA-SSSA, pp. 365-366.
- 1992 Statistical analysis of spatial urban census data in the presence of missing values, *Proceedings*, Statistics Canada Symposium 91: Spatial Issues in Statistics (held November 12-14), Ottawa: Statistics Canada, pp. 251-268.
- (with C. Amrhein) A simple model for statistical quality control of geographical data in an information system, *Proceedings*, The Canadian Conference on GIS (held March 18-22), Ottawa: CISM, pp. 94-103.
- Data quality and visualization: a position paper, in M. Beard, B. Buttenfield, and S. Clapham (eds.), *NCGIA Research Initiative 7: Visualization of Spatial Data Quality*, <u>Technical Paper</u> No. 91-26, NCGIA, C77-C85.
- Distance calculations and errors in geographic data bases, in M. Goodchild and S. Gopal (eds.), Accuracy of Spatial Databases, New York: Taylor & Francis, pp. 81-90; translated and reprinted in abridged form in Nederlands Geodetisch Tijdschrift Geodesia, 92-1 (1992), 4-8; specially acknowledged by the French National Geographic Institute, 1997.

- Model identification for estimating missing values in space-time data series: monthly inflation in the U.S. urban system, 1977-1985, in D. Griffith and R. Haining (eds.), *Transformations Through Space and Time*. The Hague: Martinus Nijhoff, pp. 309-319.
- *(with J. Huff, M. Sonis, L. Leifer and D. Straussfogel) Dynamic central place theory: an appraisal and future prospects, in D. Griffith and R. Haining (eds.), *Transformations Through Space and Time*. The Hague: Martinus Nijhoff, pp. 121-151.
- 1985 (with R. Haining and R. Bennett) Estimating missing values in space-time data series, in J. Ord and O. Anderson (eds.), *Time Series Analysis: Theory and Practice 6*. Amsterdam: North-Holland, pp. 273-282.
- 1983 Contraction dynamics of the Puerto Rican sugar industry: a preliminary analysis, in B. Lentnek (ed.), *Contemporary Issues in Latin American Geography*, Proceedings of CLAG #9, pp. 142-143.
- 1983 *(with C. Amrhein and J. Guevara) The effect of random Thiessen structure and random processes on the measurement of spatial autocorrelation, *Proceedings*, 14th annual Pittsburgh Modelling and Simulation Conference, pp. 585-589.
- 1983 Phasing-out of the Puerto Rican sugar industry, in D. Griffith and A. Lea (eds.), *Evolving Geographical Structures*. The Hague: Martinus Nijhoff, pp. 196-228.
- 1981 Interdependence in space and time: numerical and interpretative considerations, in D. Griffith and R. MacKinnon (eds.), *Dynamic Spatial Models*. Alphen aan den Rijn: Sijthoff and Noordhoff, pp. 258-287.

Secondary and Non-refereed Publications (34 single authored; 18 joint authored)

- 2014 MR3216647, *Mathematical Reviews*: Protasov, V.; and Logofet, D. Rank-one corrections of nonnegative matrices, with an application to matrix population models. *SIAM J. Matrix Anal. Appl.* 35 (2014), no. 2, 749-764. 15B48 (92D25);
- 2014 MR3137632, *Mathematical Reviews*: Carlson, G. The shape of data, *Foundations of Computational Mathematics*, *Budapest 2011*, 16–44, Cambridge Univ. Press, Cambridge, London Math. Soc. Lecture Note Ser., 403, 2013; http://www.ams.org/mathscinet-getitem?mr=3137632
- 2014 MR3102908, *Mathematical Reviews*: Jordan, M. On statistics, computation and scalability, *Bernoulli* 19 (2013), no. 4, 1378-1390; http://www.ams.org/mathscinet-getitem?mr=3102908
- 2014 MR3097174, *Mathematical Reviews*: Bruno, F.; Cocchi, D.; and Vagheggini, A. Finite population properties of individual predictors based on spatial patterns, *Environ. Ecol. Stat.* 20 (2013), no. 3, 467-494; http://www.ams.org/mathscinet-getitem?mr=3097174
- 2014 MR3090433, *Mathematical Reviews*: Hürlimann, W. Generalized Helmert-Ledermann orthogonal matrices and rom simulation, *Linear Algebra Appl.* 439 (2013), no. 7, 1716-1729; http://www.ams.org/mathscinet-getitem?mr=3090433
- 2014 Editorial: Editor's Comments, Geographical Analysis, 46: 337-339.
- 2014 (with S. Stehman and A. Stein; 1st) Editorial for the special issue entitled "Revealing Intricacies in Spatial and Spatio-Temporal Data: Papers from the Spatial Statistics 2013 Conference," *Spatial Statistics*, 9: 1-3.
- 2014 (with S. Arlinghaus; 2nd) Eigenvalue fractal geometry: an alternative approach to fractal generation, *Solstice*, XXV (1), http://www.mylovedone.com/image/solstice/sum14/
- MR2993871, *Mathematical Reviews*: Caro-Lopera, F.; González-Farías, G.; Balakrishnan, N. Determinants, permanents and some applications to statistical shape theory, *J. Multivariate Anal.* 114 (2013), 29–39; http://www.ams.org/mathscinet-getitem?mr=2993871
- 2012 MR2921728, *Mathematical Reviews*: Klein, A.; and Spreij, P. Transformed statistical distance measures and the Fisher information matrix, *Linear Algebra Appl.* 437 (2012), no. 2, 692-712; http://www.ams.org/mathscinet-getitem?mr=2921728
- 2012 MR2869495, *Mathematical Reviews*: Bocci, C.; Carlini, E.; and Rapallo, F. Perturbation of matrices and nonnegative rank with a view toward statistical models, *SIAM J. Matrix Anal. Appl.* 32 (2011), no. 4, 1500-1512; http://www.ams.org/mathscinet-getitem?mr=2869495

- 2011 Editorial: Geography, graph theory, and the new network science, *Geographical Analysis*, 43: 345-346.
- 2010 (with S. Arlinghaus; 2nd) Mapping it out! A contemporary view of Burgess's concentric ring model of urban growth, *Solstice*, XXI (2), www.mylovedone.com/image/solstice/win10/ArlinghausandGriffith.html
- 2010 Editorial: Celebrating 40 years of scientific impacts by Alan Wilson, *Geographical Analysis*, 42: 361-363.
- 2010 (with R. Patuelli, N. Schanne, and P. Nijkamp; 3rd) "Persistent disparities in regional unemployment: application of a spatial filtering approach to local labour markets in Germany," also *Research Memorandum* 2010-1 (also *Quaderni DSE Working Paper* No. 743, Università de Bologna). Amsterdam: Faculty of Economics and Business Administration, Vrije Universiteit.
- 2009 Editorial: Celebrating 40 years of scientific impacts by Cliff and Ord, *Geographical Analysis*, 41: 343-345.
- 2009 Introduction, Geographical Analysis, 41: 1-2.
- 2007 (with G. Christakos) Medical geography as a science of interdisciplinary knowledge synthesis under conditions of uncertainty, *Stochastic Environmental Research & Risk Assessment*, 21: 459-460.
- An assessment of Mr. Alec Rawls's "Islamic and jihadist design features of the Crescent/Bowl of Embrace," report submitted to the National Park Service, U.S. Department of the Interior.
- 2006 Beyond the bell-shaped curve: Poisson models in spatial data analysis, *Geographical Analysis*, 38: iii-iv.
- *(with R. Patuelli, M. Tiefelsdorf and P. Nijkamp) The use of spatial filtering techniques: the spatial and space-time structure of German unemployment data, *Discussion Paper # 06-049/3*, Tinbergen Institute, Amsterdam, The Netherlands.
- 2001 (with A. Lea) "Opposites don't attract in spatial autocorrelation," *GEOWorld*, 14, #11 (November), 42-44 (www.geoplace.com/gw/).
- 2000 *(with P. Fellows and F. Lagona), "Promoting statistical literacy: a conceptual approach to teaching first-year students," in 1999 Sigma Xi Forum Proceedings, p. 173.
- 2000 "Small geographic area estimation contributions to federal agricultural data: a Pennsylvania case study," *The Pennsylvania Geographer*, 38 (#1): 3-29.
- 2000 "President's Column," Sigma Xi News, 9 (#3), March, pp. 1, 5.
- "A methodology for small area estimation with special reference to a one-number agricultural census and confidentiality: results for selected major crops and states," <u>RD Research Report</u>, Number RD-99-04, National Agricultural Statistics Service, U.S. Department of Agriculture.
- 1999 "President's Column," Sigma Xi News, 9 (#2), October, pp. 1, 4.
- 1997 (with F. Lagona) "Specification errors in spatial models: impacts on modeling and estimation," Discussion Paper No. 108, Department of Geography, Syracuse University.
- 1997 "Final Report: Spatial Sampling for the 'Community Benchmark Project'" for project funded by the Alfred P. Sloan Foundation, W. Coplin and A. Merget PIs, Public Administration.
- (with S. Borker, S. Stehman, and S. Halperin) "STT 101: Introduction to Statistics, a final report on development of the course," <u>Final Report</u> submitted to the Dean of Arts & Sciences; <u>Final Report</u> on "Design of a numerically based introduction to statistics (STT 101)," Syracuse University Faculty Instructional Grants Program, to Center for Instructional Development.
- 1995 (with R. Martin) "Some results on graph spectra, with applications to geographic spatial modelling," Research Report No. 461/95, Department of Probability and Statistics, U. of Sheffield.
- *(with A. Sone) "Some trade-offs associated with computational simplifications for estimating spatial statistical/econometric models: preliminary results," <u>Discussion Paper</u> No. 103, Department of Geography, Syracuse University.
- 1993 A course in spatial statistics, <u>Technical Report</u> #153, Department of Statistics, Oregon State University.

- 1992 (with J. Mercer, F. Csillag, M. Monmonier, and A. Can) "The Utility of GIS for State Housing Agency Databases: New York State's SHARS," <u>Final Report</u> submitted to the NYS Science and Technology Foundation.
- "Estimating missing values in spatial urban census data," *The Operational Geographer*, 10 (2): 23-26 [also translated into French].
- *(with A. Sone) "Trade-offs associated with computational simplifications for estimating spatial statistical models," <u>Working Paper</u>, l'Institut de Mathematiques Economiques, Universite de Bourgogne, Dijon, France (with French "Resumé").
- "Error assessment, locational errors, and attribute errors," in GIS and spatial data analysis: report on the Sheffield workshop, <u>Regional Research Laboratory Initiative Discussion Paper</u> #11, R. Haining and S. Wise (eds.), University of Sheffield, November pp. 14-15.
- "Univariate and multivariate modelling of areal data, in GIS and spatial data analysis: report on the Sheffield workshop," in R. Haining and S. Wise (eds.), <u>Regional Research Laboratory Initiative Discussion Paper</u> #11, University of Sheffield, pp. 22-25.
- 1991 (with C. Amrhein) "A statistical model for analyzing error in geographic data in an information system," <u>Discussion Paper</u> No. 38, Department of Geography, University of Toronto.
- 1991 *(with A. Sone) "An evaluation study of a location-allocation modeling software package for the PC," <u>Discussion Paper</u> No. 101, Department of Geography, Syracuse University.
- *(with R. Lewis, B. Li, I. Vasiliev, S. McKnight, X. Yang) "Developing MINITAB software for spatial statistical analysis: a tool for education and research," *The Operational Geographer*, 8 (3): 28-33.
- 1990 (with R. Jensen, M. Monmonier, S. DeGloria, L. Herrington) <u>Final Report</u>, New York State Program in Geographic Information and Analysis Planning Grant, Syracuse University, 191 pp.
- 1990 "A New York State Program in Geographic Information and Analysis: report on the planning grant," URISA NYS Chapter Newsletter, Vol. 1, #2 (Winter).
- 1988 "A Reply to R. Martin, Some comments on correction techniques for boundary effects and missing value techniques," *Geographical Analysis*, 20: 70-75.
- 1986 "An overview of the spatial statistics literature," <u>Discussion Paper</u> No. 1986/6, Foundations of Empirical Economics Research Series, Netherlands Economic Institute.
- 1981 "Towards a theory of spatial statistics: a rejoinder," *Geographical Analysis*, 13: 91-93.
- 1978 The impact of configuration and spatial autocorrelation on the investigation and interpretation of geographical models, unpublished doctoral dissertation, Department of Geography, University of Toronto.
- 1977 "Spatial economic dynamics and the Canadian grain handling system: some preliminary findings," Working Paper No. 5, U. of Toronto/York U. Joint Program in Transportation, U. of Toronto
- 1976 "Spatial autocorrelation problems: some preliminary sketches of a structural taxonomy," *The East Lakes Geographer*, 11: 59-68.
- 1975 "The search for spatial theories: on the role of conceptual and computational models in geographic research," *The Geographical Bulletin*, 9: 7-13.
- 1975 (with L. Bourne) "The spatial organization of urban land use: a statistical evaluation of a classification," <u>Research Paper</u> No. 69, Centre for Urban and Community Studies, University of Toronto.
- 1974 "A maximum likelihood technique for estimating the parameters of a spatial probability function," Discussion Paper No. 16, Department of Geography, University of Toronto.
- 1972 "The use of regression models in geographic research: a classroom methodology," *The Pennsylvania Geographer*, 10: 7-14.