CURRICULUM VITAE

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EDUCATION BEYOND HIGH SCHOOL:

Ph.D., 1989, Department of Geography, University of Washington

M.S., 1979, Department of Econometrics and Operations Research, Poznan University of Economics

POSITIONS HELD

- 2013 present, Professor and Department Chair
- 2003 present, Co-director of the Center for Earth Systems Analysis
 - Research, Department of Geography, San Diego State University,
- 2003 present, Coordinator of GIS Certificate Program, San Diego State University
- 2001 2002, Professor, Institute for Geoinformatics, University of Muenster, Germany
- 2000 2001 Professor, Department of Geography, University of Idaho, Moscow, Idaho
- 1995 2000, Associate Professor, Department of Geography, University of Idaho, Moscow, Idaho
- 1989 95, Assistant Professor, Department of Geography, University of Idaho, Moscow, Idaho
- 1985 89, Consultant, Center for Social Studies, Computation and Research, University of Washington
- 1979 84, Teaching Associate, Institute for Economics and Management of Tourism, Poznan, Poland

VISITING APPOINTMENTS

- 2013 Visiting Professor, Federal University of Minas Gerais, Belo Horizonte, Brazil
- 2012 Visiting Professor, University of Cagliari, Italy
- 2009 Visiting Professor, University College Dublin, Ireland
- 2008 present, Visiting Professor, Institute for Geoecology and Geoinformation, Adam Mickiewicz University, Poznan, Poland
- 2000 Visiting Scholar, German National Center for Information Technology, Sankt Augustin
- 1999 Visiting Scholar, German National Center for Information Technology, Sankt Augustin

PUBLICATIONS:

Refereed Publications:

- Ligmann-Zielinska, A., Jankowski, P. 2014. Spatially-explicit integrated uncertainty and sensitivity analysis of criteria weights in multicriteria land suitability evaluation. *Environmental Modelling & Software*, **57**, 235-247.
- Jankowski, P., Fraley, G, Pebesma, E. 2014. An exploratory approach to spatial decision support. *Computers Environment and Urban Systems*, **45** (2014): 101-113
- Feizizadeh, B., Jankowski, P. Blaschke, T. 2014. A GIS based Spatially-explicit Sensitivity and Uncertainty Analysis Approach for Multi-Criteria Decision Analysis. *Computers & Geosciences*, 64(3): 81-95
- Andrienko, G., Andrienko, N., Bosch., H., Ertl, T., Fuchs, G., Jankowski, P., Thom, D. 2013. Discovering Thematic Patterns in Geo-Referenced Tweets through Space-Time Visual Analytics. *Computing in Science & Engineering*, 15(3): 72-82.
- Hisakawa, N., Jankowski, P., Paulus, G. 2013. Mapping the porosity of international border to pedestrian traffic: a comparative data classification approach to a study of the border region in Austria, Italy, and Slovenia. *Cartography and Geographic Information Science*, 40(1): 18-27
- Ligmann-Zielinska, A., Jankowski, P. 2012. Impact of proximity-adjusted preferences on rank-order stability in geographical multicriteria decision analysis, *Journal of Geographical Systems*, 14(2): 167-187

- Weeks, J., Stoler, J. Jankowski, P. 2011. Who's Crossing the Border: New Data on Undocumented Immigrants to the United States, *Population, Space and Place*, 17(1): 1-26.
- Jankowski, P. Andrienko, G., Andrienko, N., Kisilevich, S. 2010. Discovering landmark preferences and movement patterns from photo postings. *Transactions in GIS*, 14(6): 833-852.
- Ligmann-Zielinska, A., Jankowski, P. 2010. Exploring normative scenarios of land use development decisions with an agent-based simulation laboratory. Computers, Environment and Urban Systems, 34(5): 409-423.
- Gorsevski P.V, Jankowski P. 2010. An optimized solution of multi-criteria evaluation analysis of landslide susceptibility using fuzzy sets and Kalman filter. *Computers and Geosciences*, 36: 1005-1020.
- Shahumyan H., Jankowski, P. Integration of the MOLAND Model with GeoChoicePerspectives Spatial Decision Support Software for Scenario Evaluation PROCEEDINGS OF AGILE 2010 The 13th AGILE International Conference on Geographic Information Science, Editors: Marco Painho, Maribel Yasmina Santos and Hardy Pundt, ISBN: 978-989-20-1953-6
- Jankowski, P., 2009. Towards participatory geographic information systems for community-based environmental decision making, *Journal of Environmental Management*, vol. 90, 1966-1971.
- Andrienko, G., Andrienko, N., Jankowski, P., Kraak, M-J. 2009. Special Issue: Geospatial Visual Analytics. *Cartography and Geographical Information Science*, 36(3): 223-224.
- Ligmann-Zielinska, A., Jankowski, P. 2008. A Framework for Sensitivity Analysis in Spatial Multiple Criteria Evaluation, Lecture Notes in Computer Science No. 5266, Eds. T.J., Cova, H.J. Miller, K. Beard, A.U. Frank, Proceedings of 5th International Conference, GIScience 2002, Park City, Utah, USA, September 2008, Springer Verlag, Berlin-Heidelberg, p.217-233.
- Owen, A, Jankowski, P, Williams, B., Wulfhorst, J.D. 2008 Improving public participation in resource protection: Case studies on north-central Idaho. *Journal of Environmental Policy & Planning*, 10(3): 255-269.
- Jankowski, P., Ligmann-Zielinska, A., Swobodzinski, M. 2008. Choice Modeler: A Web-based Spatial Multiple Criteria Evaluation Tool. Transaction in GIS, 12(4): 541-561.
- Gorsevski PV, Jankowski P. 2008. Discerning landslide susceptibility using rough sets. *Computers, Environment and Urban Systems*, 32(1): 53-65.
- Ligmann-Zielinska, A., Church, R., Jankowski, P. 2008. Spatial optimization as a generative technique for sustainable multiobjective landuse allocation, *International Journal of Geographical Information Science*, 22(6): 601-622.
- Hope, A., Decker, J., Jankowski, P., 2008. Utility of gridded rainfall for IHACRES daily river flow predications in Southern California watershes, *Water Resources*, 44(4): 1-8.
- Jankowski, P., Tsou, Ming-Hsian., Wright, D.R. 2007. Applying Internet Geographic Information System for water quality monitoring, *Geography Compass* 1(6): 1315-1337, on-line version: <u>http://www.blackwell-compass.com/subject/geography/section_home?section=geco-gis</u> DOI: 10.1111/j.1749-8198.2007.00065.x
- Ligmann-Zielinska, A, Jankowski, P. 2007. Agent-based models as laboratories for spatially explicit planning policies, *Environment and Planning B*: 34(2), p.316-335

- Andrienko, G., Andrienko, N., Jankowski, P., Keim, D., Kraak, M-J., MacEachren, A., and S. Wrobel. 2007. Geovisual Analytics for Spatial Decision Support: Setting the Research Agenda. *International Journal* of Geographical Information Systems, 21(8): 839-857
- Owen, A, Jankowski, P, Williams, B. 2006. Spatial Data for Water Resource Protection: Field Study on a North-Central Indian Idaho Reservation. *Journal of Environmental Assessment Policy and Management*, 8(4), pp. 431-450
- Nyerges, T., P. Jankowski, K. Ramsey and D. Tuthill, 2006. Collaborative Water Resource Decision Support: Results of a Field Experiment, *Annals of the Association of American Geographers*, 96(4): 699-725
- Nyerges, T., Brooks, T., Jankowski, P., Rutherford, G.S., and Young, R. 2006. Web portal implementation to support public participation in transportation decision making. ACM International Conference Proceedings Series, Vol. 151: 67-68
- Gorsevski PV, Jankowski P, Gessler PE. 2006. A heuristic approach for mapping landslide hazard by integrating fuzzy logic with analytic hierarchy process. *Control and Cybernetics* 35(1): 121-146
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- Gorsevski P.V., Jankowski P, Gessler P.E. 2005. Spatial prediction of landslide hazard using fuzzy k-means and Dempster-Shafer theory. *Transactions in GIS*, 9(4): 455-474
- Gorsevski, P.V., P.E.Gessler, and P. Jankowski. 2003. Integrating a fuzzy k-means classification and a Bayesian approach for spatial prediction of landslide hazard. *Journal of Geographical Systems*, 5(3), pp. 223-251.
- Andrienko, G, N. Andrienko, and P. Jankowski. 2003. Building Spatial Decision Support Tools for Individuals and Groups, *Journal of Decision Systems*, 12(2), pp. 193-208.
- Jankowski, P. and T. Nyerges. 2003. Toward a Framework for Research on Geographic Information-Supported Participatory Decision-Making, URISA Journal Online, 15(1), http://urisa.org/publications/journal?page=7, last accessed on 3/4/2012.
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- Nyerges, T, Jankowski, P., and C. Drew. 2002. Data Strategies for Social-Behavioral Research in Participatory Geographic Information Science", *International Journal of Geographic Information Science*. 2002, 16(1): 1-22
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- Jankowski, P., M. Stasik, M.A. Jankowska. 2001. A map browser for an Internet-based GIS Data repository. Transactions in GIS, 5:1, pp. 5-18
- Jankowski, P. 2000. Collaborative spatial decision making in environmental restoration management: an experimental approach. *Journal of Hydroinformatics*, 2:3, pp.197-206.

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- Hickey, R., Smith A., and Jankowski, P. 1994. Slope Length Calculations from a DEM Within ARC/INFO GRID, *Computer, Environment and Urban Systems*, 18(5):365-380.
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- Haddock, G., and Jankowski, P. 1993. Integrating Nonpoint Source Pollution Modeling with a Geographic Information System, *Computer, Environment and Urban Systems*, 17(5):437-451.
- Jankowski, P., and ZumBrunnen, C. 1993. Towards a Modeling Support System for Simulation of Water Quality, *Journal of Computing in Civil Engineering*, 7(3):354-371.
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- Rozenblit, J., and Jankowski, P. 1991. An Integrated Framework for Knowledge-Based Modeling and Simulation of Natural Systems, *Simulation*, Vol. 57, No. 3, pp. 152-165.
- Jankowski, P., and Rozenblit, J. 1990. DEVS-Scheme Simulation of Stream Water Quality, ACM SIGSIM Simulation Digest, Vol. 21, No. 1, pp. 20-28.
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- Jankowski, P. 1989. Mixed-Data Multicriteria Evaluation for Regional Planning, A Systematic Approach to the Decision-Making Process, *Environment and Planning A*, Vol. 21, No. 3, pp. 349-362.
- Jankowski, P. 1984. An Optimization Model of a System of Sewage Treatment Plants on the Warta River (in Polish), *Gospodarka Wodna*, No. 12, pp. 374-377.
- Jankowski, P. 1983. Economic and Technical Considerations of Using the Warta River for Tourist and Recreational Purposes (in Polish), *Kronika Wielkopolska*, No. 2, pp. 111-121.

Books

Nyerges, T., and P. Jankowski. 2009. Urban and Regional GIS: a decision support approach. Guilford Press

Jankowski, P., and T. Nyerges. 2001. GIS for Group Decision Making. Taylor & Francis, London.

Book Chapters:

- Vrotsou, K., Andrienko, N., Andrienko, G., Jankowski, P. 2011. Exploring City Structure from Georeferenced Photos Using Graph Centrality Measures. In Gunopulos, D., Hofman, T., Malerba, D., and M. Vazirgiannis (eds), *Machine Learning and Knowledge Discovery in Databases*, Lecture Notes in Computer Science, Springer Verlag, Vol. 6913/2011, pp.654-657, DOI: 10.1007/978-3-642-23808-6_50, Url: <u>http://dx.doi.org/10.1007/978-3-642-23808-6_50</u>
- Jankowski, P. 2011. Designing Participatory Geographic Information Systems. In Nyerges T.L., Couclelis, H., and R. McMaster (eds), *The Sage Handbook of GIS and Society*, pp. 347-360
- Gorsevski P. V, Gessler P. E, Jankowski P, 2010. A fuzzy *k*-means classification and a Bayesian approach for spatial prediction of landslide hazard. In Fischer MM and Getis A (eds), *Handbook of Applied Spatial Analysis*, Springer, pp. 653-684
- Morris, A., Jankowski, P., Bourgeois, B.S., Petry, F.E. 2010. Decision Support Classification of Geospatial and Regular Objects Using Rough and Fuzzy Sets. Uncertainty Approaches for Spatial Data Modeling and Processing: A Decision Support Perspective. Eds. Kacprzyk, J., Yazici, A., Petry, F.E. Springer-Verlag, Berlin, pp.3-8.
- Jankowski, P. and T. Nyerges. 2008. GIS and Participatory Decision Making. *The Handbook of Geographical Information Science*. Edited by John D. Wilson and A. Stewart Fotheringham. Blackwell Publishing, pp.481-493.
- Jankowski, P. 2008. Spatial Decision Support Systems. Encyclopedia of Geographic Information Science. Edited by Karen Kemp. SAGE, Thousand Oaks, CA, pp.287-90.
- Jankowski, P. 2007. A Rough Set-Based Approach to Handling Uncertainty in Geographic Data Classification. In: A. Moris and S. Kokhan (eds.), *Geographic Uncertainty in Environmental Security*. Springer Verlag, Berlin, pp. 75-87.
- Nyerges, T. L., Jankowski, P. 2007. Participatory Geographic Information Science. Eds. A. Anttiroiko, M. Malkia *Encyclopedia of Digital Government*, Idea Group, p. 1314-1316.

- Jankowski, P. 2006. Integrating GIS and Multiple Criteria Decision Making Methods: Ten Years After. *IJGIS Classics*, Editor: Peter Fisher, Taylor & Francis Group, Boca Raton, pp. 265-296.
- Jankowski, P. and M. Stasik. 2006. An Experimental Study Using SDS Tools for a Participatory Approach to Local Land Use Planning. *Collaborative Geographic Information Systems*, Editors: Shivanand Balram and Suzanna Dragicevic. Hershey: Idea Group Publishing, pp.150-166.
- Morris, A. and P. Jankowski. 2005. Spatial Decision Making Using Fuzzy GIS. Fuzzy Modeling with Spatial Information for Geographic Problems, Editors: Maria Cobb, Fred Petry, and Vince Robinson. Springer-Verlag, 2005. 275-298.
- Nyerges, T., and P. Jankowski. 2004. Toward a Participatory Geographic Information Science. Association of American Geographers Centennial Worldminds volume:100 Geographic Solutions to Saving Planet Earth, Janelle, Hansen and Warf, (eds.).
- Gorsevski, P.V., P.E.Gessler, and P. Jankowski. 2004. Spatial Predicition of Landslide Hazard Using Fuzzy K-Means and Bayes Theorem. In A Message from the Tatra: Geographical Information Systems and Remote Sensing in Mountain Environmental Research. Jagiellonian University Press, Krakow, pp. 159-172.
- Jankowski. P., T. Nyerges 2002. Introduction to Spatial Decision Support Systems. In the Encyclopedia of Life Support Systems (EOLSS), Theme 1.9 – Advanced Geographic Information Systems (edited by Claudia Bauzer Medeiros). UNESCO / Eolss Publishers, Oxford, UK. <u>http://www.eolss.net.</u>
- Rinner, C., P. Jankowski. 2002. Web-Based Spatial Decision Support Technical Foundations and Applications. In the Encyclopedia of Life Support Systems (EOLSS), Theme 1.9 – Advanced Geographic Information Systems (edited by Claudia Bauzer Medeiros). UNESCO / Eolss Publishers, Oxford, UK. <u>http://www.eolss.net.</u>
- Jankowski, P. and T. Nyerges. Using GeoChoice Perspectives in Collaborative Spatial Decision Making. In Schmoldt, D.L., Kangas, J., Mendoza, G.A. and Pesonen, M.I. (eds.) 2001. *The Analytic Hierarchy Process In Natural Resources and Environmental Decision Making*. Kluwer Academic Publishers, Dordrecht, pp. 253-268.
- Morris, A., and Jankowski, P. 2000. Combining fuzzy sets and fuzzy object oriented spatial databases in multiple criteria spatial decision making. *Flexible Query Answering Systems: Recent Advances*, Advances in Soft Computing, Springer-Verlag, Heidelberg, pp. 103-116.
- Jankowski, P., A. Lotov, and D. Gusev. 1999. Application of Multicriteria Trade-off Approach to Spatial Decision Making. In: J-C. Thill (Ed.) GIS and Multiple Criteria Decision Making: A Geographic Information Science Perspective, London: Ashgate, pp. 127-148.
- Jankowski, P. and G. Haddock. 1996. Integrated Nonpoint Source Pollution Modeling System. In GIS and Environmental Modeling: Progress and Research Issues, eds. M.F. Goodchild, L.T. Steyaert. Fort Collins, Colorado, GIS World Books, pp. 209-211.

Other Publications:

- Jankowski, P. 2010. Geographic Information Systems. In B.Warf, editor, *Encyclopedia of Geography*. Los Angeles: SAGE, p.1232
- Jankowski, P. 2003. Usability of Spatial Decision Support Tools for Collaborative Water Resource Planning. Eds. C. Stephanidis and J. Jacko, Proceedings of the 10th International Conference on Human-Computer-Interaction, HCI International, Crete, Greece, 22-27 June 2003. London: Lawrence Erlbaum and Associates, pp.1223-1227

- Jankowski, P. 2003. Book review of "Community Participation and Geographic Information Systems. International Journal of Geographical Information Science", Vol.17, No.7, 715-16
- Jankowski, P., Nyerges, T., Tuthill, D, R. 2002. An Experimental Study of Geographic Information Technology Use in Collaborative Water Resource Planning: Preliminary results. In: GIScience 2002 Abstracts, University of California Regents, Santa Barbara, p. 75-87
- Andrienko, G., Andrienko N., and Jankowski, P. 2002. Building Spatial Decision Support Tools for Individuals and Groups. Conference Proceedings of the International Conference on Decision Making And Decision Support in the Internet Age (DSIage2002), Ireland.
- Jankowski, P. Andrienko, N., Andrienko, G., and Voss, H. 2000. On-line analyse in combinatie met GIS ondersteunt beslissingen effectief. Vastgeodinformatie MATRIX, Vol 8(7) pp.14-17.
- Andrienko, G., Jankowski, P. and Andrienko, N. 2000. Data mining approach to reducing cognitive complexity of multiple criteria spatial decision problem. Eds. P. Forer, A. Yeh, and Jianbang He, Proceedings of the Ninth Spatial data Handling Symposium, Beijing, People's Republic of China, pp. 3a15-3a28.
- Morris, A., Jankowski, P. 2000. Combining Fuzzy Sets and Databases in Multiple Criteria Spatial Decision Making. In: Flexible Query Answering Systems: Recent Advances, edited by H.Larsen, J. Kacprzyk, S. Zadrozny, T. Andreasen, H. Christiansen. Kluwer, 103-116.
- Vert G., Morris A., Stock M., and Jankowski P. 1999. Extending Entity-Relationship Modeling Notation to Fuzzy Management of GIS Datasets", Conference Proceedings of the 18th International Conference of the North American Fuzzy Information Processing Society, June 1999, New York, New York.
- Stasik, M., and P. Jankowski. 1998. GIS-supported group decision making under distributed space and time conditions. Eds. T. Poiker and N. Chrisman, Proceedings of the 8th International Symposium on Spatial Data Handling, Vancouver, B.C., Canada, International Geographic Union, pp. 297-308.
- Jankowski, P. 1998. Public participation GIS under distributed space and time conditions. Proceedings, International Workshop on Groupware for Urban Planning, Institut National du Genie Urbain, Lyon, France.
- Jankowski, P., and T. Nyerges. 1998. Empirical research strategies for investigating the use of public participation GIS. Proceedings, International Workshop on Groupware for Urban Planning, Institut National du Genie Urbain, Lyon, France.
- Jankowski, P., Nowogrodzki, L., Paluszynski, W., Szczygielski, J. 1996. International GIS: Poland. In: GIS World Sourcebook 1996, Fort Collins, CO: GIS World, pp. 427-431.
- Jankowski, P., and Nowogrodzki, L. 1994. International GIS: Poland. In: *1994 International GIS Sourcebook*, Fort Collins, CO: GIS World, pp. 297-298.
- Jankowski, P. 1993. Integrated Geographic Information System for Modeling Nonpoint Source Pollution Events, in *Proceedings of the Fourth Annual Conference on AI, Simulation, and Planning in High Autonomy Systems*, IEEE Computer Society Press, pp. 90-94.
- Jankowski, P., and Nowogrodzki, L. 1992. GIS in Poland, in *1993 International GIS Sourcebook*, Fort Collins, CO:GIS World, pp. 294-295.
- Jankowski, P., and Nowogrodzki, L. 1992. Polish GIS Use Increasing Rapidly, *GIS EUROPE*, Vol. 1, No. 1, pp. 40-42.

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Proceedings of the International Symposium on Environmental Change and GIS, Asahikawa, Japan, pp. 219-227.

- Jankowski, P. 1991. Cartographic Modeling of Non-Point Source Pollution Critical Areas for Rivers and Lakes, in *Proceedings of the Eurocarto IX*, Warsaw, Poland, pp. 113-124.
- Jankowski, P., Haddock, G. and Griffith, S. 1991. Identification of Nonpoint Source Pollution Critical Areas for the Coeur d'Alene Lake, in *Proceedings of the Nonpoint Source Conference*, Tacoma, Washington, pp. 315-328, March.
- Jankowski, P. 1989. Suitability of Knowledge Representation for GIS, in *Proceedings of the First IGIS Symposium*, NASA, Washington, D.C., Vol. 2, pp. 273-280.
- Jankowski, P. 1987. Economic Problems of Environmental Protection and Rational Utilization of Natural Resources, Chapter 3 in: *The Environmental Protection* (in Polish), ed. Z. Block, Labor Unions Publishing Company, Warsaw, pp. 141-185, 1987.
- Jankowski, P. 1983. An Application of Sectoral Analysis to Economic Research (in Polish), in: Scientific Notebook No. 14, Poznan School of Economic Press, Poznan, pp. 150-163.
- Jankowski, P. 1982. Some Mathematical Methods of Regional Classification (in Polish), in: *Monograph No.* 201, Academy of Physical Education Press, Poznan.
- Jankowski, P. 1980. Quality and Control of Stream Water in the Suburban Area of Poznan Agglomeration (in Polish), in: *Monograph No. 146*, Academy of Physical Education Press, Poznan, pp. 27-38.
- Jankowski, P., and Brzuszkiewicz, T. 1980. Development Tendencies of Services Supply in the Suburban Area (in German), 4th European Congress on Leisure, *Congressional Publication*, Zurich, pp. 271-282.

PAPERS PRESENTED AT SCHOLARLY MEETINGS:

- "Spatially-Explicit Uncertainty and Sensitivity Analysis of Criteria Weights in Land Suitability Analysis", Association of American Geographers Annual Meeting, Los Angeles, April 13-18, 2013
- "Spatial Uncertainty and Sensitivity Analysis for GIS Multicriteria-Based Landslide Susceptibility Mapping", Association of American Geographers Annual Meeting, Los Angeles, April 13-18, 2013
- "Spatial Uncertainty and Sensitivity Analysis for Multiple Criteria Land Suitability Evaluation" paper presented at the 7th International GIScience Conference, Columbus, Ohio, September 18-21, 2012.
- "Exploring City Structure from Georeferened Photos Using Graph Centrality Measures" paper presented at the European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases, Athens September 5-9, 2011.
- "Participatory Modeling Methodology: Tightening the GeoDesign Loop" paper presented at the 2nd ISPRS workshop on Pervasive Web Mapping, Geoprocessing and Services", Vancouver, BC, August 10-12, 2011.
- "Geocollaboration with Discourse Maps" paper presented at the 2008 Annual Meeting of the Association of American Geographers, Boston, MA April 15-19, 2008.
- "A Framework for Sensitivity Analysis in Multiple Criteria Spatial Decision Making" paper presented at the 2007 Annual Meeting of the Association of American Geographers, San Francisco, CA April 17-21, 2007.

- "A Rough Set Theory-Based Approach to Handling Vagueness and Uncertainty in Spatial Data Classification" paper presented at the NATO Advanced Workshop on Fuzziness and Uncertainty in GIS for Environmental Security and Protection, Kiev, Ukraine June 28 – July 1, 2006
- "Towards Participatory Geographic Information Systems for Community Planning and Environmental Decision Making" paper presented at the 3rd International conference on "Economic Globalization and Environmental Policy" Warsaw School of Economics, May 25-26, 2006
- "Participatory Planning and Decision Making Using Geographic Information Technology" paper presented at at the 10th European Community Geographic Information & GIS Workshop, Warsaw, Poland, June 23-25, 2004.
- "Design Considerations for Participatory GIS" paper presented at the 2nd Annual PPGIS Conference, Portland, Oregon, July 20-22, 2003.
- "Evaluation of Models and Software Tools for Mediated Participation in Local Planning and Decision Making" paper presented at the 2nd Annual PPGIS Conference, Portland, Oregon, July 20-22, 2003.
- "An Experimental Study of Geographic Information Technology Use in Collaborative Water Resource Planning: Preliminary results" paper presented at the 2nd GIScience Conference, Boulder, Colorado, September 25-28. September 2002.
- I. Simonis, A. Wytzisk, P. Jankowski, C. Rinner: "Multi-Criteria Decision Analysis in Interoperable Geoprocessing". Presentation (by I.S. and A.W.) at OpenGIS Technical Committee meeting, London, UK, 2002
- "Enhanced Adaptive Structuration Theory: a Theoretical Framework for Investigating the Use of Spatial Information Technologies in Participatory Decision Making Situations" paper presented at the 5th AGILE Conference on Geographic Information Science, Mallorca, Spain, April, 2002.
- "Towards a F ramework for Research on Geographic Information-supported Participatory Decision Making", paper presented at the ESF-NSF Workshop on Access to Geographic Information and Participatory Approaches Using Geographic Information, Spoleto, 6-8 December 2001
- "Dynamic Maps as Spatial Decision Support Tools" paper presented at the 97th Annual Meeting of the Association of American Geographers in New York City, March 2001.
- "Data and Technology: Tools and Access" panelist at the workshop on Transportation Decision Making: Place, Community and the Quality of Life, organized by the National Research Council, January 28-29, 2001, Irvine.
- "Research on Participatory Geographic Information Systems Use: Social-Behavioral Data Analysis Strategies" paper presented at the 1st International Conference GIScience 2000 in Savannah, Georgia, 2000.
- "GIS and Multicriteria Decision Making" paper presented at the 95th Annual Meeting of the Association of American Geographers in Honolulu, 1999.
- "A comparison of confirmatory and exploratory data analysis for studying group decision making with GIS, paper presented at the 93rd Annual Meeting of the Association of American Geographers in Boston, 1997.
- "Use of Multiple Criteria Decision Tools in GIS-Supported Collaborative Decision Making", paper presented at the Annual Meeting of the Regional Science Association International, Buffalo, 1997.

- "Spatial Choice A spatial decision support tool for collaborative spatial decision making", paper presented at the 92nd Annual Meeting of the Association of American Geographers in Charlotte, 1996.
- "Spatial Decision Support Systems for Groups", paper presented at the 91st Annual Meeting of the Association of American Geographers in Chicago, 1995.
- "Integrating GIS and Multiple Criteria Decision Making Methods," paper presented at the International Geographical Union Regional Conference "Environment and Quality of Life in Central Europe," IGU, Prague, Czech Republic, 1994.
- "Integration of MCDM and GIS," paper presented at the 90th Annual Meeting of the Association of American Geographers, San Francisco, California, 1994.
- "Integrated Geographic Information System for Modeling Nonpoint Source Pollution Events," paper presented at the Fourth Annual Conference on AI, Simulation, and Planning in High Autonomy Systems, IEEE Computer Society Press, Tucson, Arizona, 1993.
- "Modeling Languages for Spatial Decision Support Systems," paper presented at the 88th Annual Meeting of the Association of American Geographers, San Diego, 1992.
- "GIS Modeling of Agricultural Pollution Critical Areas in Lake Watershed," paper presented at the International Symposium on Environmental Change and GIS, Asahikawa, Japan, 1991.
- "Cartographic Modeling of Non-Point Source Pollution Critical Areas for Rivers and Lakes," paper presented at the Eurocarto IX, Warsaw, Poland, 1991.
- "Identification of Nonpoint Source Pollution Critical Areas for the Coeur d'Alene Lake," paper presented at the Nonpoint Source Conference, Tacoma, Washington, 1991.
- "A Structured Modeling Approach to Model Management in Spatial Decision Support Systems," paper presented at the annual convention of the AAG, Miami, 1991.
- "A Model Management Approach to Modeling and Simulation of Natural Systems," paper presented at the 4th International Symposium on Spatial Data Handling, Zurich, Switzerland, 1990.
- "A Model Management Approach to Analytical Modeling in Geoprocessing Systems," paper presented at the Specialist Meeting on Spatial Decision Support Systems, National Center for Geographic Information Analysis, Santa Barbara, March 1990.
- "Suitability of Knowledge Representation for GIS," paper presented at the First International Geographic Information Systems Symposium, Washington, D.C., November 1987.
- "Design Consideration for MaPKBS Map Projection Knowledge Based System," paper presented in cooperation with Tim Nyerges at the AAG Annual Meeting, Portland, Oregon, April 1987.
- "Multicriteria Analysis of Resource Development Projects," paper presented at the AAG Annual Meeting, Minneapolis, Minnesota, May 1986.
- "Economic Theory and Environmental Issues in Poland," paper presented at the Western Slavic Association Conference, Portland, Oregon, March 1986.
- "Methodological Problems in Environmental Economics," paper presented at the First International Seminar of Young Scholars on The Present State of Methodology in Economics in Blazejewko/Poland, September 1983.

- "The Development Tendencies of Services Supply in Suburban Area," paper presented at the 4th European Congress on Leisure, Poznan/Poland, June 1980.
- "A Method of the Optimal Location of Service Outlets," paper presented at the conference on Development of Tourist-Oriented Services in Poland, Krakow, Poland, April 1980.

Research Reports:

- Jankowski, P. 1998. Location-allocation modeling of demand for primary health care services in Idaho, Department of Geography, University of Idaho.
- Chang, K., Jankowski, P., Otawa, T. McGown, 1995. Ground Water Vulnerability Mapping. Idaho Water Resources Research Institute, University of Idaho.
- Jankowski, P. 1986. Report on the Map Projection Expert System Project, Department of Geography, University of Washington.
- Jankowski, P., and Block, Z. 1984. Multiple Criteria Evaluation Methods for Environmental Resources (in Polish), Institute of Economics and Management of Tourism, Poznan.
- Jankowski, P. 1982. Environmental Premises for the Development of Tourist Services in Suburban Areas (in Polish), Institute of Economics and Management of Tourism, Poznan.
- Jankowski, P., Goldyn, R., and Rozmiarek, G. 1980. Mathematical Modeling of Water Quality (in Polish), Institute for Environmental Protection, Poznan.

GRANTS AND CONTRACTS:

Research Grants:

- A Spatiotemporal Approach to Sensitivity Analysis in Human-Environment Systems Models, funded by NSF Geography and Spatial Sciences Program, 2013 2015, Co-PI (PI: Dr. Arika Ligmann-Zielinska, Michigan State University), \$200,000
- Border Migration Pattern Analysis from Remote Sensing Data, funded by the Department of Homeland Security through the National Center for Border Security and Immigration at the University of Arizona, 2009-2011, Co-PI, \$75,000
- Target Mapping System for Spatial Data Mining and Visualization, Office of National Drug Control and Policy, 2007 – 2008, Senior Research Personnel, \$950,000
- A Border Security Decision Support System Driven by Remotely Sensed Data Inputs, funded by NASA REASON program, 2003-2008, Co-PI, \$1.8 Million. National Aeronautics and Space Administration (NASA), Research, Education, and Application Solutions Network (REASON) NCC13-03007
- An Internet Platform to Support Public Participation in Transportation Decision Making, funded by NSF Information Technology Research—Cross-foundation Program (medium size project), 2003-2007, PI, \$300,000.
- CommonGrounds A Public Participation GIS Platform for Water Quality Data in San Diego Bay Watershed funded by the State of California, 2004 2006, Co-PI, \$400,000
- Development of Cartographic Databases from Satellite Imagery Using Neural Networks, funded by the Polish Committee for Scientific Research, 2003-2005, Co-PI, \$76,000.

- A study of Geographic Information Technology Use in Collaborative Water Resource Planning, funded by NSF joint programs in Geography and Regional Science and Risk and Management, 2001-2004, PI, \$150,000
- Geographic and Numeric Digital Data Center. Funded by the National Institute of Libraries and Archives, 1999-2001, Co-PI, \$750,000
- Decision Analysis Tools for Health Resource Allocation. Funded by the Idaho Department of Health and Welfare, 1998-99, PI, \$15,000
- Idaho Virtual Geospatial Data Library and Training Center. Technology grant to develop a clearinghouse for GIS data for Idaho. Funded by the Idaho State Board of Education, 1997-98, PI, \$89,000
- Collaborative Decision Making Under Distributed Space and Time Conditions. Research grant to design, implement and analyze a concept of participatory geographic decision support system on the Internet. Funded by the Idaho State Board of Education, 1996-97, PI, \$35,000
- Collaborative spatial decision making using geographic information technology and multicriteria models. Funded by NSF joint programs in Geography and Regional Science and Risk and Management, 1994-97, PI, \$65,000
- Collaborative spatial decision making using geographic information technology and multicriteria models. Analysis of experiment data. Funded by the NSF program Research Experience for Undergraduates. 1997, PI, \$5,000
- State-wide and sub-area transportation model feasibility study. Funded by the Idaho Department of Transportation, 1996, Co-PI, \$75,000
- Application of GIS for the assessment of ground water vulnerability. Funded by the National Research Council, 1995, PI, \$3,500
- Development and Verification of Ground Water Pollution Assessment Model. Funded by the Idaho Department of Water Resources, Division of Environmental Quality, 1993-94, Co-PI, \$70,000
- Workshop on applications of GIS technology for monitoring and management of environmental pollution. Funded by the Environmental Regional Center for Central and Eastern Europe, Budapest, Hungary, 1992. \$3,200
- Regional analysis of socioeconomic and cultural determinants of private sector development in Poland. Funded by UI Research Council, 1992-93, PI, \$2,500
- GIS-Modeling of Agricultural Pollution Critical Areas in Lake Watershed. Funded by the Idaho Mining and Mineral Resources Research Institute, 1991, PI, \$6,000
- Modeling the Economic Impacts of the Mining Industry on a Local Region. Funded by Idaho Mining and Mineral Resources Research Institute, 1990, PI, \$6,000
- Knowledge Representation Schemes for Knowledge-Based Graphic Information Systems. Funded by the Department of Geography, University of Washington, 1987, Co-PI, \$3,500
- Map Projection Expert System. Design and implementation of the Expert System prototype for the cartographic domain. Research founded from the Olympus Grant at the University of Washington, 1986, Co-PI, \$8,000

The application of decision making techniques to regional planning. Funded the Institute of Economics and

Management. Poland, 1983-84, PI.

- Economic and environmental conditions of the development of tourist-recreational infrastructure in suburban areas. Funded the Institute of Economics and Management, Poland, 1981-82, Co-PI.
- Design of economically optimal system of sewage purification plants on the Warta River. Funded the Institute of Environmental Protection, Poland, 1978-79, Co-PI.

Teaching Grants:

- Course Development: Design for watershed management using GIS and simulation models. Funded by the USDA Higher Education Challenge Grant, 2000-02, Co-PI, \$100,000
- Interactive maps for learning through visual exploration and discovery. Funded by the Northwest Academic Computing Consortium, 2000-01, PI, \$5,000

Internet-based thematic mapping service. Funded by the University of Idaho, 1999-2000, PI, \$3,000

Equipment Grants:

- An integrated spatial technology lab for GIS, Remote Sensing, and GPS. Funded by the Idaho State Board of Education, 2000-02, Co-PI, \$100,000
- Instrumentation and laboratory improvement in Geography at the University of Idaho. Funded by the NSF Instrumentation and Laboratory Improvement Program, 1992, PI, \$29,000

COURSES TAUGHT:

At San Diego State University:

Introduction to GIS GIS Applications (graduate level course) Advanced GIS (graduate level course) Spatial Decision Support Methods (graduate level course) Geographic Information Systems for Business Decision Making (graduate level course) Seminar on Participatory GIS (graduate level course)

At the University of Muenster:

Introductory GIS Digital Cartography Advanced GIS (graduate level course) Spatial Decision Support Systems (graduate level course)

At University of Idaho:

Spatial Graphics GIS Primer Understanding Systems Dynamics, Honors Program Course Decision Making Methods for Natural Resources Management (graduate level course) Geographic Information Systems Computer Mapping Modeling and Simulation with Geographic Information Systems (graduate level course)

THESES & DISSERATIONS ADVISED:

Major Professor of 14 doctoral dissertations and 27 MS/MA theses, 1989 - 2012

PROFESSIONAL SERVICE:

2008 - present, member of Spatial Decision Support Consortium

2009 - 2010, Chair of Departmental Personnel Committee, Geography, SDSU

2006 – 2007, Chair of Departmental Policy Advisory Committee, Geography, SDSU

2006 - present, member of California State University GIS Board

2003 - present, Coordinator of GIScience Certificate program at San Diego State University

2002-2005, member of the sponsored projects committee for the University Consortium for Geographic Information Sciences (UCGIS)

1998, founding member of the University of Idaho Eco-Hydraulics research group

1997-2000, Evaluator of Phi Eta Sigma Honor Society UI candidates for the national scholarship

1998-2001, Representative of Higher Education in Idaho at Idaho Geospatial Committee

Editorial Board Member

2002-present, Transactions in GIS, member of the editorial board

- 2003-2011, Journal of Geographical Systems, member of the editorial board
- 2007-2010, SAGE Encyclopedia of Geography, associate Editor for GIScience

1998-2003, Journal of Geographic Information and Decision Analysis, member of the editorial board

2002, UNESCO's Encyclopedia of Life Support Systems, editor of Spatial Decision Support Systems section

Invited Keynote Addresses, Presentations, and Colloquia:

- "Volunteered Geographic Information: Opportunities and Challenges for 21th Century Geospatial Data Infrastructures", invited presentation at the 7th Forum of Polish Geographers, Adam Mickiewicz University, Poznan, Poland, May 26-27, 2011
- "Integrating a Multi-Objective Genetic Algorithm with Geographic Analysis and Online Visualization System: An Application to Hazard Management", invited presentation at the School of Information Science, University of Otago, April 1, 2011
- "Participatory Modeling Methodology: Tightening the GeoWeb Design Loop, coauthored with Timothy Nyerges, invited presentation at the University of Otago, March 14, 2011
- "Participatory Geospatial Information System Architectures", coauthored with Timothy Nyerges, invited presentation at the University of Otago, March 22, 2011
- "Participatory Role-Play in Collaborative Decision Support, coauthored with Timothy Nyerges, invited presentation at the University of Otago, March 14, 2011
- "Participatory Approaches to Social Learning and Decision Making", invited presentation at the symposium on Energy & Water Sustainability in Southern California, San Diego, Sep.

2010.

- "Discovering Landmark Preferences and Movement Patterns from Photo Postings", invited lecture at the Department of Geography, University of California Santa Barbara, April 2010.
- "Web-Based Participatory GIS for Public Involvement in Transportation Planning", invited lecture at the Urban Institute Ireland, University College Ireland, October 2009.
- "Participatory GIS and online support for analytic-deliberative decision making: Reflections on a field experiment", invited lecture at the National Centre for Geocomputation, Maynooth, Ireland, December 2009.
- "Spatial Patterns of Transboundary Migration: A view from the US-Mexico border", invited lecture presented at the Carinthian University of Applied Science, Villach, Austria, June 10, 2009. "
- "Geographic Information Systems and Science: Challenges, Prospects and Applications", invited lecture presented at the University of Economics, Poznan, Poland, June 23, 2009.
- "Transboundary Water Resource and Participatory Decision Making", a keynote address at the 1st Spokane River Forum. Spokane, WA, January 22-23, 2009.
- "Participatory GIS and On-line Decision Support: Reflections on a field experiment", invited presentation at the Department of Geography, Penn State University, January 20, 2009.

"Designing Participatory Geographic Information Systems", World Universities Network Global GIS Academy, on-line lecture presented on 12/17/2007, available at http://www.wun.ac.uk/ggisa

"Spatial Patterns of Transboundary Migration: A view from the US – Mexico Border University of Idaho, 11/15/2007

- "Public Participation in Transportation Improvement Programming", San Diego Chapter of APA, San Diego 12/13/2007
- "Current Research Problems in GIScience", College of Geographical and Geological Sciences, University of Poznan, Poland, June 2007
- "Designing Collaborative Spatial Decision Support Systems", Urban Institute of Ireland, College University Dublin, Ireland, March 2007
- "Spatial Decision Support Systems in Conjunctive Water Administration", University of Agricultural Sciences in Wroclaw, Poland, March 2005
- "Participatory Planning and Decision Making Using Geographic Information Technology", lecture presented at the 7th GI & GIS Conference, Warsaw, June 2004
- "How to Design an Effective Spatial Decision Support System for Collaborative Water Resource Planning", open lecture at San Diego State University, March 2003.
- "Landscapes of Poland", invited lecture to University of Idaho, October 1998.
- "GIS for Every Day Problem Solving" presentation to Idaho tribal students, June 1998.
- "Challenges and Opportunities for Geographic Information Science", invited presentation at the College of Geography, the University of Poznan, Poland, April 1997.
- "Research Problems in Geographic Information Science", invited presentation at the Department of Geography, the Jagiellonian University, Cracow, Poland, May 1997.
- "Collaborative Spatial Decision Making" invited presentation to the faculty and students of the College of Natural Resources, June 1996.
- "Spatial Group Choice", invited presentation at the Idaho chapter of URISA meeting, Moscow, April 1996.
- "Multicriteria Decision Making Techniques for Environmental Risk Evaluation", invited presentation at the CRESP workshop, Seattle, February 1996.
- "GIS and Water Modeling Applications," three invited presentations at the Institute of Meteorology and Water Management, Poznan, Poland, June 1993.
- "Global Pollution Problems: The Case of Eastern Europe," invited presentation in the series of Borah-sponsored seminars on the New World Order, University of Idaho, February 1991.
- "Environment and Economics in Eastern Europe," a public lecture in conjunction with National Geography Awareness Week at Lewis Clark State College, Lewiston, Idaho, November 1990.
- "GIS and Modeling," presentation to the College of Mines and Earth Resources Advisory Board, April 1990, Moscow.

"Poland - Yesterday, Today, and Tomorrow," guest speaker at the 1990 International Seminar Series, University of Idaho.

Speaker in the International Seminar Series, University of Idaho, 1989.

Reviewer Responsibilities

Journals:

2010, Environmental Policy and Governance
2008, European Journal of Operations Research
2000-present, Computers, Environment and Urban Systems
2000-present, Computers & Geosciences
1996-present, Environment and Planning B:
1994-present, International Journal of Geographical Information Science
2000, Geographical and Environmental Modeling
1996-present, Transactions in GIS
1998-99, Journal of Environmental Management
1999, Geomatica and Cartographic Perspectives
1999-present, Journal of Geographical Systems
1997-2003, Journal of Geographic Information and Decision Analysis
1992-93, Green Library Journal
1992-93, Photogrammetric Engineering and Remote Sensing
1995-99, Cartography and Geographic Information Systems

Book Publishers: 2000, Oxford University Press 2001, Blackwell Publishers

Funding Agencies:

2012, Swiss National Science Agency 1994-present, NSF programs in Geography and Regional Science 1998-present, Social Sciences and Humanities Research Council of Canada 1998-01, NSF International Program for Western Europe 1993-97, NSF Instrumentation and Laboratory Improvement Program 1991, National Geographic Society

Other Professional Activities:

Consulting:

1996-99, Research Consultant, Idaho Department of Health and Welfare1988 (summer) The Georgette Group, Seattle, Washington1987 (summer) Seattle City Light, Seattle, Washington1979-80, Project Consultant, Institute for Environmental Protection, Poznan, Poland

Membership in Professional and Scholarly Organizations:

1985-present, Association of American Geographers 1997-99, Regional Science Association International 1991-93, IEEE Computer Society

Foreign Languages:

Fluent in Polish and German Intermediate knowledge of Russian

Professional Courses/Institutes Attended:

- "Geoprocessing and Scripting with Python" course taught by ESRI, Redlands, CA, October 14-15, 2004
- "Programming MapObjects with Visual Basic" course taught by ESRI, Sun Valley, Idaho, October 8-10, 1998
- "Programming with Avenue" course taught by ESRI, Olympia, Washington, March 1-3 1995
- "Using GRID with ArcInfo" course taught by ESRI, Olympia, Washington, April 5-9, 1993
- "Knowledge-Based Modeling Design and Simulation" institute sponsored by the College of Engineering and Mines, University of Arizona, Tucson, May 23-27, 1988
- "Design and Development of Expert Systems" institute sponsored by the Center for Educational Development and Research, University of Washington, Seattle, March-May 1986

HONORS AND AWARDS:

William Evans Visiting Fellow, University of Otago, New Zealand, March-April, 2011 Science Foundation Ireland, Walton Visiting Professor, University College Dublin, 2009 Fulbright Senior Specialist, Adam Mickiewicz University, Poznan, Poland, December 2008 Fulbright Senior Specialist, Adam Mickiewicz University, Poznan, Poland, June 2006 Fulbright Senior Specialist, Westfaelische Wilhelms Universitaet, Muenster, Germany, April 2005 Fulbright Senior Specialist, Adam Mickiewicz University, Poznan, Poland, June 2004 Outstanding Faculty Award for Assisting Students with Disabilities, University of Idaho, 2000 Outstanding Faculty Award for Teaching Excellence in 1993-1994, University of Idaho Edward L. Ullman Award for Distinguished Achievement as a Ph.D. student in Geography, Department of Geography, University of Washington, 1989 Dissertation Fellowship, University of Washington, 1988 Fulbright Scholarship, Polish-American Fulbright Commission, University of Washington, 1984-85 International Association of Students in Economics and Business Management (AIESEC) Scholarship, Preussag A.G., Hannover, West Germany, summer 1977 "Primus Inter Pares" - Award of Rector of the Poznan University of Economics for academic excellence, 1977