ACTIVITIES IN CALENDAR YEAR, 2007 AND EARLY 2008
Sandra Lach Arlinghaus

POSITIONS HELD
- Adjunct (Full) Professor of Mathematical Geography and Poopulation-Environment Dynamics, The University of Michigan, School of Natural Resources and Environment, Ann Arbor, MI 48109, 1994-present.
- Founding Director, Institute of Mathematical Geography (ImaGe). 1983-present.
- Founder and Editor, *Solstice: An Electronic Journal of Geography and Mathematics*. Noted in a "Briefing" in *Science*, published by the AAAS, 29 November, 1991, p. 1281 (by Joe Palca) and in *Science News*, January 25, 1992, p. 61 in a report by Ivars Peterson. 1990-present. See: http://www.imagenet.org/ for Solstice and for ImaGe archives.
- Member, Board of Trustees, Community Systems Foundation (CSF), 1994-present; member Executive Committee, 2003-present. CSF is a direct partner of the United Nations and, in that capacity, has developed management information systems that are currently in place in 81 developing nations.
- President, Arlinghaus Enterprises, L.L.C., 1996-present. This firm specializes in the development of creative internet applications that are environmentally-friendly.
- Co-chair, Compuware 2008 Spring North American Bridge Championships held at the Marriott at Renaissance Center, Detroit. This tournament brought together competitors from 30 different nations. It brought over 8 million dollars in business to the Detroit area and was universally heralded as one of the best run tournaments by both staff of the parent American Contract Bridge League and by its Board of Directors.

AWARDS AND HONORS
- Invited (April, 2008) by Google educational division head to serve as the representative of higher education at the Google SketchUp "Basecamp" at the GooglePlex in Mountain View, CA. Unable to accept invitation.
- Honored at ACBL Goodwill Banquet in Detroit as one of three special honorees, March 10, 2008, Aileen Osofsky, host. Presentation at the Detroit Marriott, Renaissance Center, Detroit.
- Participation in Google "Build Your Own Campus" competition as leader of the only University of Michigan team to enter; May, 2007.
- Over 50 blue ribbons awarded by Google for 3D buildings in Ann Arbor, almost all of which are now part of the default loadset in Google Earth.
- Continuing honor as a "Featured Modeler" in the Google 3D Warehouse.
- Invited participation, Pirelli INTERNETional Award Competition, 2007.
- *Who's Who in America*. Marquis. Biography
- *Who's Who in the World*. Marquis. Biography.
- Ann Arbor Police Department, Volunteers in Police Service.
- Huron Chase Condominium Association. Certificate of Appreciation.

PUBLICATIONS, 2007, 2008 (published unless otherwise indicated)

- *3D Atlas of Ann Arbor*, 3rd Edition. June, 2007. Ann Arbor: Institute of Mathematical Geography. EBook. http://www.imagenet.org/
- *Mathematical Reviews*: **MR2331063** van Kreveld, Marc; Speckmann, Bettina On rectangular cartograms. *Comput. Geom.* 37 (2007), no. 3, 175--187. (Reviewer: Sandra L. Arlinghaus) 05C10
- *Mathematical Reviews*: **MR2286523 (2007k:90060)** Berman, Oded; Drezner, Zvi; Wesolowsky, George O. The transfer point location problem. *European J. Oper. Res.* 179 (2007), no. 3, 978--989. (Reviewer: Sandra L. Arlinghaus) 90B85
- Geometry/Geography—Visual Unity. Solstice: An Electronic Journal of Geography and Mathematics, Volume XVIII, No. 2. June, 2007. Article in refereed journal. http://www.imagenet.org/
- The Animated Pascal. Solstice: An Electronic Journal of Geography and Mathematics, Volume XVIII, No. 2. June, 2007. Article in refereed journal. http://www.imagenet.org/
- Desargues's Two-Triangle Theorem. Solstice: An Electronic Journal of Geography and Mathematics, Volume XVIII, No. 2. June, 2007. Article in refereed journal.   http://www.imagenet.org/
- In prep Spatial Synthesis. Arlinghaus, Sandra L. and Arlinghaus, William C. Continuing project.
- In prep Musical Geosurfaces. Continuing project with Braxton Blake based on earlier research announcement, "Two Rivers Ridge: Capturing Art."
- In prep. Neighborhood Watch (Ann Arbor) Google Earth application.

CONFERENCES, PAPERS PRESENTED, AND DEMONSTRATIONS
- October, 2007: Conference Orgainzer, Community Systems Foundation, Fifth Annual Conference held in the Drake Memorial Room, Dana Building, The University of Michigan.
- Invited talk, October 2007, Annual CSF conference in the Drake Memorial Room of SNRE---Google Projects. http://www.csfnet.org/
- Contributed talk with Ann Larimore and Rob Haug, Annual meeting of Association of American Geographers, Boston, April 2008.
- Presentation of Google projects to Susan Pollay, Executive Director, Downtown Development Authority, City of Ann Arbor and to Matthew Naud, Environmental Coordinator, City of Ann Arbor, 3D Laboratory, Duderstadt Center.
- Continuing plans for a variety of conferences at UM.

COMMUNITY SERVICE
- Served as co-chair of North American Bridge Championship, Detroit, March 2008. This project generated an estimated 8 million for the Detroit economy.
- Continuing service to the City of Ann Arbor Police Department, especially involving computing resources of various kinds.
- Continuing work with Matthew Naud, Environmental Coordinator, City of Ann Arbor.

TEACHING
- Again, I will be teaching Maps, Timelines, and the Internet, in the Fall of 2008 with Ann Larimore. It is listed under AAPTIS, 491.
- NRE600, Section 043, Spring half-term directed study leading to the submission of a contest entry to the Google Build Your Own Campus competition. Most of the buildings, including those created by SNRE students, have won Google Blue Ribbon award status and thus appear as part of the default loadset of Google Earth.
- Maps, Timelines, and the Internet. Co-taught with Ann Larimore and Rob Haug. Partially funded by SNRE Dean's Discretionary Fund. Remainder from various LSA departments. Course listed in CMENAS, AAPTIS, and Residential College. Maps, Timelines and the Internet, RCSSCI 461; AAPTIS 491; MENAS 591   Fall 2007
- Continuing work with Ann Larimore and Rob Haug on course development.

OTHER
- Member, dissertation committee of Lucy Y. Kim, SNRE, Paul Mohai, Chair.
- Member, dissertation committee of Kerry Joy Ard, SNRE, Paul Mohai, Chair.

ACTIVITIES IN CALENDAR YEAR, 2006 AND EARLY 2007
Sandra Lach Arlinghaus

POSITIONS HELD
* Adjunct (Full) Professor of Mathematical Geography and Population-Environment Dynamics, The University of Michigan, School of Natural Resources and Environment, Ann Arbor, MI 48109, 1994-present.
* Founding Director, Institute of Mathematical Geography (IMaGe). IMaGe is an independent research institute, 1983-present.
* Founder and Editor, *Solstice: An Electronic Journal of Geography and Mathematics*. Noted in a "Briefing" in *Science*, published by the AAAS, 29 November, 1991, p. 1291 (by Joe Palca) and in *Science News*, January 25, 1992, p. 61 in a report by Ivars Peterson. 1990-present. See: http://www.imagenet.org/ for Solstice and for IMaGe archives.
* Member, Board of Trustees, Community Systems Foundation, 1994-present; member Executive Committee, 2003-present.
* President, Arlinghaus Enterprises, L.L.C., 1996-present.
* Co-chair, Compuware 2008 Spring North American Bridge Championships to be held at the Marriott at Renaissance Center, Detroit.

AWARDS AND HONORS
* Participation in Google "Build Your Own Campus" competition as leader of a University of Michigan team.
* Invited to lead Google 3D Warehouse feature, April, 2007.
* Invited participation, Pirelli INTERNETional Award Competition, 2006. (Results pending). Current issue of Solstice, An Electronic Journal of Geography and Mathematics submitted (includes much virtual reality, movies, sound…)
* *Who's Who in America*. Marquis. Biography.
* *Who's Who in the World*. Marquis. Biography.
* Ann Arbor Police Department, Volunteers in Police Service. Certificate.
* Lifetime Goodwill Award, American Contract Bridge League, celebrated at a banquet in St. Louis, MO, March, 2007.

PUBLICATIONS, 2006 (published unless otherwise indicated)
* 2007 *3D Atlas of Ann Arbor, 3rd Edition*, Online virtual reality atlas of Ann Arbor using Google Earth. In press, slated to appear, June 2008.
* "Archimedes", the pseudonym I use in the Google environment, was invited to organize, collect, and orchestrate the collection of Ann Arbor models for a new Google Feature, called "Help Model A City." There are three other cities in this Google Feature: San Jose, CA; Brookline, MA; Amherst, MA.
* 2007 "Archimedes", the pseudonym I use in the Google Environment, was awarded "Featured Modeler" status by Google…for models of Ann Arbor. There are 21 Featured Modelers. April, 2007.
* 2006 *3D Atlas of Ann Arbor, 2nd Edition*. Online virtual reality atlas of Ann Arbor using Google Earth.

- Google SketchUp 3D Warehouse Submission of files to the 3D Warehouse; also included by some third party in Google Maps and perhaps to be included in the "Google Picks" section of the home page of the 3D Warehouse under "Cities in Development." Files received high ratings in the online rating system.
- *Mathematical Reviews* MR2195270 (2006k:91213) Reviewed: McBride, Michael. Imperfect monitoring in communication networks. *J. Econom. Theory* 126 (2006), no. 1, 97-119.
- *Solstice*: *An Electronic Journal of Geography and Mathematics* "Announcement: 3D Atlas of Ann Arbor, 2nd Edition"
- *Solstice: An Electronic Journal of Geography and Mathematics* "Banda Aceh: A View on the Globe."
- *Solstice: An Electronic Journal of Geography and Mathematics* "Visualizing a Map of Walter Christaller, Poland 1941, Part I: Benchmarking the map."
- *Solstice: An Electronic Journal of Geography and Mathematics* "Visualizing a Map of Walter Christaller, Poland 1941, Part II: Interpolation of the Benchmarked Map"
- *Solstice: An Electronic Journal of Geography and Mathematics* Arlinghaus, S. L. and Batty, M. "Visualizing Rank and Size of Cities and Towns, Part I: England, Scotland, and Wales, 1901-2001."
- *Solstice: An Electronic Journal of Geography and Mathematics* Arlinghaus, S. L. and Batty, M. "Visualizing Rank and Size of Cities and Towns, Part II: Greater London, 1901-2001."
- *Solstice: An Electronic Journal of Geography and Mathematics* "Introduction to Special Issue" (on Internet Geometry and Geography)
- Review of submitted book manuscript proposal Invitation from John Wiley and Sons, NY, Mathematics Division to review a manuscript proposal submitted to them. Review completed Dec. 2006
- Review of submitted book manuscript proposal Invitation from John Wiley and Sons, NY, Mathematics Division to review a manuscript proposal submitted to them. Review completed Nov. 2006
- in press *Research Methods in Geography: A First Course*. John Paul Jones III, and Basil Gomez, are editors. Sandra L. Arlinghaus has signed a contract with Blackwell to produce a chapter, entitled "Mathematical Analysis" for this work, delivered to the publisher by April 1, 2006. Accepted (pending minor modifications) July 2006.
- *Solstice: An Electronic Journal of Geography and Mathematics Arlinghaus*, Sandra L. and Arlinghaus, William C. Maps and Decisions: Part II: Ambiguity; Part III--Redistricting; Part IV--Club Data. Volume XVII, Number 1, June 2006. http://www.imagenet.org/
- *3D Atlas of Ann Arbor, 1st Edition* Arlinghaus, Sandra Lach; Editor and single principal co-author with numerous secondary co-authors noted throughout. June, 2006: Institute of Mathematical Geography. http://www.imagenet.org/
- *Solstice: An Electronic Journal of Geography and Mathematics* Book review of Wildberger, Norman, Divine Proportioins: Rational Trigonometry to Universal Geometry. Wild Egg Press, Australia.
- *Solstice: An Electronic Journal of Geography and Mathematics* "3D Atlas of Ann Arbor: The Google Earth Approach" Part I; Part II. Volume XVII, Number 1, June.
- *Solstice: An Electronic Journal of Arlinghaus*, Sandra L. Arlingaus and Michael Batty, "Zipf's Hyperboloid?" Volume XVII, Number 1, June 2006. http://www.imagenet.org/

- *Mathematical Reviews* MR2184706 (2006g:91131) Reviewer of Kempe, David; Kleinberg, Jon; and, Tardos, Eva. Influential Nodes in a Diffusion Model for Social Networks. Automata, languages and programming, 1127-1138, *Lecture Notes in Comput. Sci*., 3580, Springer; Berlin, 2005.
- *Mathematical Reviews* MR2179976 (2006e:90058) Reviewer of Arriola, Rosario; Laporte, Gilbert; Ortega, Francisco A. The Weber problem in a multi-storey building. *INFOR Inf. Syst. Oper. Res.* 43 (2005), no. 3, 157--169. 90B80 (90C90)
- Book proposal review (invited)--John Wiley & Sons.
- *Mathematical Reviews* MR2147040 (2006a:90046) Reviewed: Berman, Oded; Krass, Dmitry An improved IP formulation for the uncapacitated facility location problem: capitalizing on objective function structure. *Ann. Oper. Res*. 136 (2005), 21--34. 90B80 (90C10)
- In prep. Geography and Mathematics Arlinghaus, Sandra L. and Kerski, Joseph J. Book project in the stages of initiation.
- In prep Spatial Synthesis Arlinghaus, Sandra L. and Arlinghaus, William C. Spatial Synthesis, Volume I, Book 2. E-book involving other authors, as well, on a continuation of the first book in this series.
- In prep Visual Mathematics Arlinghaus, Sandra L. and Arlinghaus, William C. Series of eBooks in preparation.
- In prep Musical geosurfaces Arlinghaus, Sandra L. and Blake, Braxton. Continuing work based on Research Announcement: Two Rivers Ridge: Capturing Art.

CONFERENCES AND PAPERS PRESENTED
- October, 2006: Conference Organizer, Community Systems Foundation, Fourth Annual Conference, held in the Drake Memorial Room, Dana Building, The University of Michigan.
- October, 2006: 3D Atlas of Ann Arbor.
- October, 2006: Larimore, Ann E.; Haug, Robert; and Arlinghaus, Sandra L. GEOMAT: presentation and report on trial course before East Lakes Division of the Association of American Geographers. Toledo, Ohio.
- March, 2006: Unleashing the Power of GIS/GPS. Arlinghaus, Sandra L. (Invited Program Chair), John Corbett, Joseph J. Kerski, Teri Landrum, and Carol Miller. Workshop co-sponsored by Taylor and Francis and AAG, March 6 and 7, Palmer House, Chicago, IL.
- March, 2006: Sessions on 3D mapping in the conference above.
- March, 2006: GEOMAT Larimore, Ann E.; Arlinghaus, Sandra L.; and Haug, Robert. GEOMAT: presentation and report on trial course before Association of American Geographers. Chicago, Illinois
- Continuing plans with Kerski for possible other workshops at U of M.

DEMONSTRATIONS
- 3D Atlas of Ann Arbor: "Archimedes in Ann Arbor?" demonstration at the Duderstadt Center to Tracy Davis, Ann Arbor News, and Vivienne Armentrout, Ann Arbor Observer
- 3D Atlas of Ann Arbor: "Archimedes in Ann Arbor?" demonstration at the Duderstadt Center to the Board of the League of Women Voters, including Shirley Axon and Judith Mich.

COMMUNITY SERVICE
- Neighborhood Watch Advisory Panel, City of Ann Arbor Police Department
- Work with Matthew Naud, Environmental Coordinator, City of Ann Arbor.
- Continuing as Co-Chair of the Compuware Detroit Spring 2008 North American Bridge Championships, March 6-16, 2008 at the Marriott at the Renaissance Center.

TEACHING
- NRE600, Section 043, Spring half-term directed study leading to the submission of a contest entry to the Google Build Your Own Campus competition
- Engineering 477, brief presentation and interaction with students, October.
- Continuing work with Ann E. Larimore and Robert Haug on course development

OTHER
- Member, dissertation committee of Lucy Y. Kim, SNRE, Paul Mohai, Chair.
- Advisor for intern, Mike Carlin, School of Education, Fall 2006.

Curriculum Vitae
SANDRA JUDITH LACH ARLINGHAUS, Ph.D.
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Ann Arbor, Michigan 48104
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e-mail: sarhaus@umich.edu
URL: http://www-personal.umich.edu/~sarhaus

CURRENT (OR RECENT) EMPLOYMENT/ACTIVITIES

- Adjunct (Full) Professor of Mathematical Geography and Population-Environment Dynamics, The University of Michigan, School of Natural Resources and Environment, Ann Arbor, MI 48109, 1994-present.
- Adjunct Professor, College of Architecture and Urban Planning, University of Michigan, Spring, 1997; 2000-2005; Affiliated faculty, 1999-2005.
- Founding Director, Institute of Mathematical Geography (IMaGe). IMaGe is an independent research institute, 1983-present.
- Founder and Editor, *Solstice: An Electronic Journal of Geography and Mathematics*. Noted in a "Briefing" in *Science*, published by the AAAS, 29 November, 1991, p. 1291 (by Joe Palca) and in *Science News*, January 25, 1992, p. 61 in a report by Ivars Peterson. 1990-present. See: http://www.imagenet.org/ for Solstice and for IMaGe archives.
- Member, Board of Trustees, Community Systems Foundation, 1994-present; member Executive Committee, 2003-present.
- President, Arlinghaus Enterprises, L.L.C., 1996-present.

RECENT AWARDS

- Invited submission to Pirelli INTERNETional Award; SemiFinalist, 2003 competition (in top 80, worldwide, of over 1000 entries): for a section from a book entitled *Spatial Synthesis*. May, 2004. Entire Ebook published, June, 2005: Institute of Mathematical Geography.
- Award, "The President's Volunteer Service Award." March 11, 2004.
- Invited submission to Pirelli INTERNETional Award; Finalist, 2002 competition (in top 20, worldwide of over 1200 entries): for book co-authored and published by Wiley, noted below. May, 2003.
- Invited submission to Pirelli INTERNETional Award; SemiFinalist, 2001 competition (in top 80, worldwide, of over 1000 entries): for *Solstice: An Electronic Journal of Geography and Mathematics*. May, 2002.
- *Graph Theory and Geography: an Interactive View E-Book*, equal co-authors with William C. Arlinghaus, Frank Harary. John Wiley and Sons, New York, April, 2002.
- *Who's Who in America*, 1995-continuing in all editions to present, Marquis.
- *Who's Who in the World*, 1993-continuing in all editions to present, Marquis.

OTHER RECENT ACTIVITIES

- Co-Chair, with William C. Arlinghaus and Ronald Horwitz, North American Bridge Championship, Detroit Renaissance Center, March 6-16, 2008. American Contract Bridge League.
- Course development with Ann E. Larimore and Rob Haug, 2004-present; pilot course taught with them through CMENAS in 2004. Further development is currently in progress.
- Faculty Advisor in Engineering 477, Virtual Reality, University of Michigan. (Course of Prof. Klaus-Peter Beier.) 2003-present.
- City of Ann Arbor Planning Commission, 1995-2003 served as member, Secretary, Vice-Chair, and Chair of City Planning Commission. Also, member Ordinance Revisions Committee, 1995-2003; Co-vice-chair, Northeast Area Master Plan Citizens Advisory Committee, 2000-2001; member Master Planning Committee, 2002-2003.
- Member, Neighborhood Watch Advisory Board, City of Ann Arbor Police Department (also registered block captain), 2001-present.
- Invited Lecture series on Cartography/GIS, The University of Chicago, June 2000, 2001 (three three-hour lectures)
- Member, City of Ann Arbor Environmental Commission, 2000-2003; member Water Committee.
- Director, Spatial Analysis Division, and Director of Fellowship Training Division, Community Systems Foundation (International NGO with principal partner of UN, non-profit, tax-exempt, 501(c)3), Ann Arbor, MI. 1996-2002.
- Founder, International Society of Spatial Sciences, non-profit, a division of Community Systems Foundation, 1995-present.
- Reviewer, *Mathematical Reviews*, 1991-present; the MathSci online database currently shows authorship of 59 reviews.

EDUCATIONAL HISTORY

- Ph.D. (Location Theory, or more broadly, Theoretical Geography), University of Michigan, Geography. Advisor: Waldo R. Tobler; Dissertation co-Chairmen: Waldo R. Tobler and John D. Nystuen. Dissertation title: "On Geographical Network Location Theory."
- Graduate study in Mathematics in Ph.D. track: University of Chicago, University of Toronto, Wayne State University. Advisors: Chicago, S. Mac Lane and A. P. Calderon; Toronto, H. S. M. Coxeter; Wayne State, Geert Prins.
- M.A. Geography, Wayne State University, Advisor: Jack A. Licate.
- A.B. Vassar College. Major, Mathematics; Minor, Zoology.
- Precollegiate Education: University of Chicago Laboratory Schools; Ecole Alsacienne: Petit Ecole du Pere Castor; American School of Paris.

CURRENT CITATION LIST—(included in Excel format and the end)

EARLIER AWARDS, CITATIONS, AND HONORS

- *Community Service Award, 1999.* Awarded by the City of Ann Arbor; I was the only "citizen" to receive such an award, as noted by the Mayor.
- *Who's Who in America*, 1995-continuing in all editions to present, Marquis.
- *Who's Who in the World*, 1993-continuing in all editions to present.
- *American Men and Women of Science*, 1989 and later.
- *Dictionary of International Biography*, International Biographical Centre, Cambridge, England, 22nd Edition, 23rd Edition, 28th Edition (1999-2000).
- *2000 Outstanding Scholars of the Twentieth Century, 1999-2000,* International Biographical Centre, Cambridge, England
- *Outstanding People of the 20th Century*, International Biographical Centre, Cambridge, England (1999-2000).
- *International Woman of the Millennium*, 1999. International Biographical Centre, Cambridge, England.
- *500 Leaders of Influence*, American Biographical Institute, 1999-2000.
- *Strathmore Who's Who*. 1999.
- *Who's Who in the Media and Communications*, 1997, Marquis.
- *Who's Who in American Education*, 1992.
- Other biographical citations and awards arranged by publisher or grantor:
    - Marquis *Who's Who of American Women*; *Who's Who in the Midwest*
    - International Biographical Centre (Cambridge, England) *The World Who's Who of Women*, *International Who's Who of Intellectuals, Most Admired Men and Women of the Year, 1992/93*, Twentieth Century Award for Achievement (Literature, 1993), International Cultural Diploma of Honor (March, 1993), World Intellectual of 1993, International Woman of the Year, 1991-92.
    - American Biographical Institute (Raleigh, North Carolina) *International Directory of Distinguished Leadership*, *5000 Personalities of the World*, *International Who's Who of Contemporary Achievement*, *Personalities of America*, *Two Thousand Notable American Women*, *Five Hundred Leaders of Influence*, *International Who's Who of Professional and Business Women*, Certificate of Recognition for Outstanding Professional Accomplishments, Distinguished Leadership Award for Outstanding Service to Mathematical Geography (1992), Key Award for Success in Research (1992-93), Silver Shield of Valor, 1991-92.

- Honorary Member, Advisory Council, International Biographical Centre,Cambridge, England--1992-present.
- Honorary Appointment, Research Board of Advisors, National Division, American Biographical Institute, Raleigh, North Carolina. 1992-
- University Fellowship, non-traditional, University of Michigan, 1976-77.
- Graduate Teaching Fellow in Geography, University of Michigan, 1975-77.
- Graduate Teaching Assistant in Geography, Wayne State University, 1974.
- Graduate Teaching Assistant in Mathematics, University of Toronto, 1966-67.

CONSULTING/GRANT EXPERIENCE: NATIONAL AND INTERNATIONAL

- NSF grant applicant with John Nystuen and others, Taubman College of Architecture and Urban Planning (UM), 2004. Not funded.
- with Paul Richards, School of Natural Resources (UM). Not funded.
- with Bob Beckley, 2002. Not funded.
- NSF grant; participant in a small part (in an advisory capacity only) with Paul Mohai, PI, and Robin Saha.
- NASA grant submitted with a team from SNRE, CAUP, and ERIM--not funded.
- NSF grant submitted with a team from SNRE and CAUP--not funded.
- Team-head, for Community Systems Foundation, of project with Environmental Research Institute of Michigan (ERIM) to develop a GIS to manage the infrastructure for the city of Istanbul and the country of Turkey.
- United Nations Family Planning Agency (UNFPA), Syrian Maternal and Child Health Care/Family Planning, five year project including GIS and training components, through Community Systems Foundation; completed 1997.
- World Bank, Punjab Middle Schooling Project, including GIS and training components, through Community Systems Foundation; completed 1997.
- University of Michigan Transportation Research Institute.
- Studies in Urban Security Group, College of Architecture and Urban Planning, University of Michigan; Detroit Water and Sewerage Department Pollution and Detection Abatement.
- Nystuen, P.I. "Terrain effects on bus durability" funded through UMTA, via University of Michigan Transportation Research Institute, December, 1985. Technical Report, 1985.
- Nystuen, P.I., development of a graph theoretic description of the Detroit water supply network; part of a contract to develop a water contingency plan, funded through Architecture and Planning Research Laboratories, University of Michigan, June, 1985.
- Nystuen, P.I. "Climatic effects on bus durability," funded through Urban Mass Transportation Administration, via University of Michigan Transportation Research Institute, December, 1984.

INVITED AND CONTRIBUTED ADDRESSES AND LECTURES

University of Chicago; University of California (Berkeley); Ohio State University; University of Michigan; Syracuse University; University of Northern Iowa; American Mathematical Society; Association of American Geographers; Regional Science Association; Transportation Research Board of the National Research Council (National Academies of the Sciences and of Engineering); Midwest Graph Theory Conference, North American Simulation and Gaming Association.

REVIEWS OF PUBLISHED WORK and MEDIA EXPOSURE

Science (AAAS) (29 November, 1991, p. 1291, report by Joseph Palca)*; Science News* (January 25, 1992, p. 61, report by Ivars Peterson)*; Mathematical Reviews (AMS); Newsline: Current*

Research in Public Transportation Development (TRB/NRC/NAS), National Academy Press; The American Mathematical Monthly (MAA); Journal of Regional Science; Graduating Engineering Magazine; Harvard Technology Window; Zentralblatt fur Mathematik, Springer-Verlag (Berlin); *Newsletter* of the Transportation Specialty Group of the Association of American Geographers; *Books in Print* (R. R. Bowker); *Literary Market Place* (R. R. Bowker); Michigan Council of the Arts; Archives of American Art (Smithsonian Institution); Nova; Ann Arbor Community Access TV; *Ann Arbor News; Columbus Dispatch,* name inscribed on sculpture involving the Bering Strait; (of IMaGe documents other than mine*: Mathematics Magazine, Journal of Classification, Newsletter* of the Urban Geography Specialty Group of the AAG*)*

PROFESSIONAL SERVICE

- Co-Organizer of Festschrift for John D. Nystuen, 1999.
- Ph.D. (and similar) Committee service:
  - Member, doctoral committee of Ruben De la Sierra. School of Natural Resources and Environment, University of Michigan Ph.D. granted 1998.
  - Member, doctoral committee of Rhonda Ryznar. College of Architecture and Urban Planning, University of Michigan, Ph.D. granted 1998.
  - Member, Master's Practicum Committee (Co-chair), School of Natural Resources and Environment, University of Michigan, Astrid Hillers, M.A. granted 1998. (Astrid was also a Ph.D. student in the College of Engineering.)
  - Directed Rosalyn Scaff, in custom course for credit to capture her experience in working for the City of Ann Arbor, Planning Department, Fall 1998. Resulted in an award for this work.
  - Member, doctoral committee of Robin Saha. School of Natural Resources and Environment, University of Michigan. Ph.D. granted, 2001.
  - Member, doctoral committee of Andrea Frank. College of Architecture and Urban Planning. University of Michigan. Ph.D. granted, 2000.
  - Member, Area Exam committee of Hui-Chun Huang, College of Architecture and Urban Planning. University of Michigan.
  - Member, Area Exam committee of Moira Zellner, 2001.
  - Member, Master's Practicum, committee of Dean Leslie Hay, David Pollock, Karl Koto, School of Natural Resources and Environment.
  - Member, Doctoral committee of Seung-Hoon Han, Architecture, College of Architecture and Urban Planning, University of Michigan, 2002--2003
  - Member, Doctoral committee of Lucy Y. Kim, School of Natural Resources and Environment, University of Michigan, 2003--present.

- Creator and director of a colloquium that serves as a research-level forum for the interchange of ideas in mathematics and geography. Its purpose is to generate publications suited for refereed journals and book series. Journal articles have appeared in publications devoted primarily to the following disciplines: geography, biology and medicine, psychology, and civil engineering. Minor pieces have appeared, in addition, in publications devoted primarily to: mathematics, and history. 1982-present. I founded IMaGe from this Colloquium in 1983, and organized it as a business in 1985.

- Referee, *Geographical Analysis: an International Journal of Theoretical Geography*, 1988, 1989, 1997.
- Invited member, Search Committee for a Curator for the [Library of the American Geographical Society](). This collection, housed at the University of Wisconsin at Milwaukee is the largest collection of geographical materials in the western hemisphere. 1993.
- Referee, *International Journal of Geographic Information Systems*. 1993.
- Grader (and "re-grader") of top 100, *Michigan Mathematics Prize Competition of the Mathematical Association of America,* 1991-92; 1992-93.
- Collaborative effort with Robert F. Austin (1991-1994) to generate a donation of mapping software, composed of all major GISs, to The University of Michigan; ESRI donated one of each of their products; negotiations are underway with other vendors; the value of the gift was about $28,000. It is housed in the Prechter Laboratory in the UM School of Education.
- Referee, *Cartography & Geographic Information Systems*, 1990.
- Referee, *Professional Geographer: Forum and Journal of the Association of American Geographers*, 1989, 1990.
- Served as session Chair, Co-chair, Organizer, or Discussant for a variety of professional organizations, including the American Mathematical Society, the Association of American Geographers, and the Regional Science Association (enumerated list with dates available on request).
- Referee, publications of Institute of Mathematical Geography. 1986 to present.
- Institute of Mathematical Geography, projects involving work of others:

Monograph Series (there are currently 23 published, 1985-present)
- **#4:** Robert F. Austin, *A Historical Gazetteer of Southeast Asia,* Library of Congress Card Number, 86-229956, 1986. ISBNs 1-877751-08-1; 1-877751-09-X.
- **#6:** P. Hanjoul, H. Beguin, and J.-C. Thill, *Theoretical Market Areas under Euclidean Distance*, 1988. ISBNs 1-877751-12-X; 1-877751-13-8.
- **#7:** Keith Tinkler, *Nystuen/Dacey Nodal Analysis*, 1989. Library of Congress Card Number, 023472993. ISBNs 1-877751-14-6; 1-877751-15-4.
- **#8:** James W. Fonseca, *Urban Rank-Size Hierarchy: A Mathematical Interpretation*, 1989. ISBNs 1-877751-16-2; 1-877751-17-0.
- **#10:** Daniel A. Griffith, *Simulating K=3 Christaller Central Place Structures: An Algorithm Using A Constant Elasticity Of Substitution Consumption Function*, 1989. ISBNs 1-877751-20-0; 1-877751-21-9.
- **#12:** Daniel A. Griffith, editor. *Spatial Statistics: Past, Present, and Future*. 1990. ISBNs 1-877751-42-1; 1-877751-43-X.
- **#18:** J. Gordon. The Cause of Location of Roads in Maryland: A Study in Cartographic Logic, 1995.

Textbook reprints:
- Allen K. Philbrick---*This Human World*; extensive updating involving work with author. ISBN: 1-877751-39-1
- John F. Kolars and John D. Nystuen---*Human Geography*

Classic Reprint Series: John D. Nystuen, Editor.

Michigan Interuniversity Community of Mathematical Geographers; reprints of originals, requiring retyping, and redrawing of some materials, as well as extensive reworking of original documents to produce a document close in appearance to the original (including yellow covers). Editor of original and of revived series: John D. Nystuen. ISBNs: #2 1-877751-27-8; #5 1-877751-30-8; #9 1-877751-33-2; #10 1-877751-34-0; #12 1-877751-36-7.

Discussion Papers Series (new material)

Establishment of "Discussion Papers in Mathematical Geography," Daniel A. Griffith invited to serve as Editor; Discussion Paper #1: Daniel A. Griffith, "Spatial Regression Analysis on the PC: Spatial Statistics Using MINITAB," 1989. ISBN: 1-877751-24-3.

Game Series

Game---Genus Four. With William Arlinghaus, David Barr, John Nystuen, and Helen Santiz.

Outreach

- Original designs for "Fractal SeaParQue," a proposed marina development on Lake St. Clair presented, on request, to Frank Piku, head of Piku Management Company, Roseville, MI---October, 1988 (with John D. Nystuen)
- Peer reviewer, National Science Foundation, 1984.
- Creator and organizer of, and participant in, a symposium, "Geography: The Heart of the Matter," The University of Michigan, Ann Arbor, February 14, 1983. Other participants: George Kish (University of Michigan), Donald F. Lach (University of Chicago), John D. Nystuen (University of Michigan).
- Editorial assistance provided to Ann Larimore for "Hypsometric Curve Variance and Drainage Basin Planforms," by Everette N. Bannister (deceased), Department of Geography, University of Michigan, 1983.
- Service on university-wide committee, Health Professions Advisory Committee. Interviewer of pre-medical students, Loyola, 1981-82.
- Attempt to establish a geography department at Loyola, 1980-82, resulting in approval for a course, "Geometry and Geography," in the Department of Mathematics, 1981-83.
- Museum Exhibit designs: "The garden of solids: an outdoor display in geometry using shadows." Submitted 1981 to *The Mathematical Intelligencer* as an exhibit design for the Musee de Science et de l'Industrie, La Villette, France. "A journey in the world of algebra: Rubik's Ride." Co-author, William E. Arlinghaus. Entries remain property of the *Intelligencer*, whether or not the plans are ever used.
- Referee, *Environment and Planning, B* , 1980.

EARLIER COMMUNITY SERVICE

- Created over 500 3D models (several thousand files) in response to concerns of the Downtown Residential Task Force, City of Ann Arbor/DDA, 2004-2005.
- Continuing work donated to City of Ann Arbor involving creation of 3D models of the downtown available on the world wide web (noted on front page of Ann Arbor News, April, 2004) and to Matt Naud, Environmental Coordinator, City of Ann Arbor.
- July, 2003: work on tornado siren location noted in *Ann Arbor News*.
- City Official, City of Ann Arbor, 1995-2003; service on City Planning Commission (televised) as member, Secretary, Vice-Chair, and Chair; Environmental Commission

- (televised); Ordinance Revisions Committee, Master Planning Committee, Water Committee, Northeast Area Master Plan Citizens Advisory Committee, as noted above.
- Application of lessons learned in Syria to Detroit. Creator of computer give-away to Alternatives for Girls (with Amy Good, Brenda Bryant, and Adele Akouri) with an indirect application to the curbing of gang violence, 1995-99.
- Friends of Huron Parkway, founder, 1995; see website using general URL above.
- President, Bromley Homeowners Association (neighborhood of 231 homes in northeast Ann Arbor), 1995-96, 1990-91; 1991-92; 1992-93. Elected position. Feature article in the *Ann Arbor News*, in April, 1993. Editor and principal author, Bromley Homeowners' Association Newsletter, 1990-93; 1995-1997. Thirty-six issues, plus extras, ranging in length from 2 to 8 pages (often 6). Created electronic archives of these newsletters, as "Bromley Online."
- Head of Neighborhood Watch, Bromley--in charge of about 20 block captains. Program run by the Ann Arbor Police Department. Effective August 1, 1994. Created Citizens Neighborhood Watch homepage, attached to general URL above. 1994-1996.
- Time, artistic, and culinary effort donated to the Michigan Bridge Association, 1994.
- Liason, between Ivy Club and Vassar Club of Southeastern Michigan, 1993-1994.
- Elected Board Member, Dolfins Swimming Pool, Inc. Ann Arbor, MI. 1993-96.
- Invited talk to Ann Arbor City Planning Commission, January 24, 1991.
- Member of five-person local arrangements committee for the 1991 World Junior Bridge Championships of the World Bridge Federation.
- Detailed study of a proposed Detroit-area mass transit network donated to Coleman A. Young, Mayor of the City of Detroit. With John D. Nystuen, 150 pages. May, 1988.
- Artistic services (posters) donated to Mathematics Awareness Week, Lawrence Technological University. Letter of commendation for these efforts received by W. Arlinghaus, in charge of that Week, from the Joint Policy Board, American Mathematical Society, 1988.
- Cartographic services donated to Bromley Homeowners Association, Ann Arbor, 1988. Map of "Ann Arbor: Shopping and Population Patterns" presented to Ann Arbor City Planning Commission and directly to the Mayor of Ann Arbor.
- Map of Ann Arbor township "islands" made for Gwen Nystuen, Ann Arbor City Planning Commissioner, 1987.
- Artistic and culinary services donated to the Michigan Bridge Association, 1987.
- Cartographic analysis of the impact of the I-696 extension on the pool of potential students for Lawrence Technological University and for rival institutions, donated to President Marburger of L.T.U.
- With Beverly Riordan, M.S., Master Teacher of High School Science, Ypsilanti, Michigan. *IMaGe Interactive Atlases*. Classroom-tested at Ypsilanti High School, 1987. This work led to "Sharma and the Atlas," television show produced for Ann Arbor Community Access Television. Producer, Sandra Arlinghaus; Educational Consultant, Beverly Riordan. Fourteen short episodes produced to promote Geography Awareness.
- Complete set of IMaGe productions donated to Senator (D-NJ) Bill Bradley: 1986-1989; selected IMaGe publications donated to the New York State prison system; selected IMaGe publications donated to the Library of Congress (at their request) for their displays at the International Geographical Union.

- Work with sculptor David Barr on a continuing basis on international outdoor art projects, 1981-present.

PREVIOUS EMPLOYMENT

- Electronic typesetting of mathematical notation (using Plain TeX). Typesetter of *Useful Optics* (Walter Welford) for the University of Chicago Press.
- Adjunct Lecturer in Mathematics, Department of Mathematics, University of Michigan, Dearborn; and, in Geography, Program in Geography, University of Michigan, Ann Arbor, 1982-83.
- From Lecturer to Assistant Professor of Mathematics, Department of Mathematical Sciences, Loyola University of Chicago, 1979-82.
- Lecturer in Mathematics, Department of Mathematics, Ohio State University, Columbus, 1978-79.
- Visiting Assistant Professor of Geography, Department of Geography, Ohio State University, Columbus, 1977-78.
- Free-lance cartography.
- Crossword puzzle creator.

TEACHING

- Consistently high teaching evaluations at various universities (samples available on request).
- Named a "best teacher" at Loyola's downtown campus of 5000 students. I was the only full-time, regular member (in the "professorial" ranks) of the Mathematics Department, on any campus, so-named.
- Featured in newspaper articles, in Ohio, for innovative teaching.
- Experience teaching geography at undergraduate and graduate levels. Experience in both small and large lecture sections. Primary responsibility for all phases of course development, including teaching assistants. Have taught: Urban Geography, Spatial Analysis (at various levels), GIS, Population Environment Dynamics, General Geography, Economic Geography, Seminar, Location Theory.
- Experience teaching mathematics at all undergraduate levels, from remedial to advanced courses for majors, to advanced courses for engineers. Experience in both small and lecture sections. Primary responsibility for lectures, for test design, and for the supervision of three teaching assistants, per course, in large lecture sections (240 students) in mathematics.

DETAILED EDUCATIONAL HISTORY

- Ph.D., University of Michigan, Geography, 1977. Advisor: Waldo R. Tobler. Dissertation co--Chairmen: Waldo R. Tobler and John D. Nystuen. Dissertation title: "On Geographical Network Location Theory." (Grade point average: "A" transcript available on request.)
- M.A., Wayne State University, Geography, 1976. Advisor: Jack A. Licate. Thesis title:"Graph Theory in Geography: A Survey of Previous and Potential Uses."

- Graduate study in Mathematics, specializing in Graph Theory, Wayne State University. Advisor: Geert Prins. (Full--time student in program leading to Ph.D., 1968-70)
- Graduate study in Mathematics, specializing in Geometry, University of Toronto. Advisor: H. S. M. Coxeter. (Full--time student in program leading to Ph.D., 1966-67)
- Graduate study in Mathematics, University of Chicago. (Full--time student in program leading to Ph.D., 1964-66; GRE's, 99th percentile, math., verbal, aptitude; 92nd percentile advanced math achievement.) Advice on a continuing basis over many years from Saunders Mac Lane; Advisor assigned: Alberto Pedro Calderon.
- A.B. Mathematics, Vassar College, 1964. Minor: Zoology. (Combined SAT's 1400+ on two tests)
- Diploma, University of Chicago Laboratory Schools, (top 10 %), 1960. Participant in "Sophomore Project" and Seminar, as written about by Herbert A. Thelen in *Education and the Human Quest*, University of Chicago Press, 1960, 1972. In pages 90 to 96, I am "Jane."
- Education in Paris, France (with parents): Alliance Francaise, Paris, summer school, 1956. Ecole Alsacienne, 1955-56. Petit Ecole du Pere Castor, 1952-53. American School of Paris, 1949. Resident, 1950.
- French---Advanced Pass, Univ. of Michigan Language Exam, 1976.
- German---Advanced Pass, Univ. of Chicago Language Exam, 1965.
- Training course on Xerox 9500 from a representative of Xerox, 1987.
- Electronic typesetting using TeX, 1988.
- Producer, Ann Arbor Community Access Television, 1988.
- Junior Life Saving, American Red Cross, 1950s. One save, recorded in Minnesota.

FAMILY

- Married, September 3, 1966 to William Charles Arlinghaus, Professor, Department of Mathematics and Computer Science, Lawrence Technological University, Southfield, Michigan. One son, William Edward. One grandson, David Edward.
- Parents: Donald F. Lach, Late Bernadotte Schmitt Professor Emeritus of History, University of Chicago; Alma S. Lach, (Grand Diplome de Cordon Bleu de Paris), author.

PROFESSIONAL MEMBERSHIPS

- American Geographical Society, Fellow
- Regional Science Association
- Association of American Geographers
- American Mathematical Society
- Mathematical Association of America
- Michigan Society of Planning Officials
- Michigan Section, American Planning Association

CURRENT CITATION LIST—(included in Excel format and the end)

Name	Date	Book or Journal Title	Citation	Type
Arlinghaus	In Prep.	3D Atlas of Ann Arbor, 3rd Edition	Arlinghaus, Sandra L. Online virtual reality atlas of Ann Arbor using Google Earth. Projected online publication date is June, 2008.	B
Arlinghaus	2007	Google SketchUp 3D Warehouse	"Archimedes", the pseudonym I use in the Google environment, was invited to organize, collect, and orchestrate the collection of Ann Arbor models for a new Google Feature, called "Help Model A City." There are three other cities in this Google Feature: San Jose, CA; Brookline, MA; Amherst, MA.	O
Arlinghaus	2007	Google SketchUp 3D Warehouse	"Archimedes", the pseudonym I use in the Google Environment, was awarded "Featured Modeler" status by Google…for models of Ann Arbor. There are 21 Featured Modelers. April, 2007.	O
Arlinghaus	2006	3D Atlas of Ann Arbor, 2nd Edition	Arlinghaus, Sandra L. Online virtual reality atlas of Ann Arbor using Google Earth.	B
Arlinghaus	2006	Google SketchUp 3D Warehouse	Submission of files to the 3D Warehouse; also included by some third party in Google Maps. November 2006	O
Arlinghaus	2006	Mathematical Reviews	MR2195270 (2006k:91213) McBride, Michael. Imperfect monitoring in communication networks. J. Econom. Theory 126 (2006), no. 1, 97-119.	O
Arlinghaus	2006	Solstice: An Electronic Journal of Geography and Mathematics	Submitted to the Pirelli INTERNETional Award competiton.	O
Arlinghaus	2006	Solstice: An Electronic Journal of Geography and Mathematics	Announcement: 3D Atlas of Ann Arbor, 2nd Edition	O
Arlinghaus	2006	Solstice: An Electronic Journal of Geography and Mathematics	Arlinghaus, S. L. Banda Aceh: A View on the Globe.	O
Arlinghaus	2006	Solstice: An Electronic Journal of Geography and Mathematics	Arlinghaus, S. L. Visualizing a Map of Walter Christaller, Poland 1941, Part II: Interpolation of the Benchmarked Map	J
Arlinghaus	2006	Solstice: An Electronic Journal of Geography and Mathematics	Arlinghaus, S. L.: Visualizing a Map of Walter Christaller, Poland 1941, Part I: Benchmarking the Map	J
Arlinghaus	2006	Solstice: An Electronic Journal of Geography and Mathematics	Arlinghaus, S. L. and Batty, M. Visualizing Rank and Size of Cities and Towns, Part II: Greater London, 1901-2001	J

Arlinghaus		2006	Solstice: An Electronic Journal of Geography and Mathematics	Arlinghaus, S. L. and Batty, M., Visualizing Rand and Size of Cities and Towns, Part I: England, Scotland, and Wales, 1901-2001.	J
Arlinghaus		2006	Solstice: An Electronic Journal of Geography and Mathematics	Arlinghaus, S. L. Introduction to the Special Issue (on Internet Geometry and Geography).	O
Arlinghaus		2006	Review of submitted manuscript proposal	Invitation from John Wiley and Sons, NY, Mathematics Division to review a book manuscript proposal submitted to them. Review completed Dec. 2006	O
Arlinghaus		2006	Review of submitted manuscript proposal	Invitation from John Wiley and Sons, NY, Mathematics Division to review a book manuscript proposal submitted to them. Review completed Nov. 2006	O
Arlinghaus		2006	Community Systems Foundation	Report on 3D Atlas of Ann Arbor to the Foundation's annual October meeting.	R
Arlinghaus		2006	Association of American Geographers	Larimore, Ann E.; Arlinghaus, Sandra L.; and Haug, Robert. GEOMAT: presentation and report on trial course before East Lakes Division of the Association of American Geographers, October 2006.	R
Arlinghaus	In prep.		Geography and Mathematics	Arlinghaus, Sandra L. and Kerski, Joseph J. Book project in the stages of initiation.	B
Arlinghaus	In prep		Spatial Synthesis	Arlinghaus, Sandra L. and Arlinghaus, William C. Spatial Synthesis, Volume I, Book 2. E-book involving other authors, as well, on a continuation of the first book in this series.	B
Arlinghaus	In prep		Visual Mathematics	Arlinghaus, Sandra L. and Arlinghaus, William C. Series of eBooks in preparation.	B
Arlinghaus	In prep		Musical geosurfaces	Arlinghaus, Sandra L. and Blake, Braxton. Continuing work based on Research Announcement: Two Rivers Ridge: Capturing Art.	O
Arlinghaus	2006 in press		Research Methods in Geography: A First Course.	John Paul Jones III, and Basil Gomez, are editors of Research Methods in Geography: A First Course. Sandra L. Arlinghaus has signed a contract with Blackwell to produce a chapter, entitled "Mathematical Analysis" for this work, to be delivered to the publisher by April 1, 2006. Accepted (pending minor modifications) July 2006	C

Arlinghaus	2006 Solstice: An Electronic Journal of Geography and Mathematics	Arlinghaus, Sandra L. and Arlinghaus, William C. Maps and Decisions: Part II: Ambiguity; Part III--Redistricting; Part IV--Club Data. Volume XVII, Number 1, June 2006. http://www.imagenet.org/	
Arlinghaus	2006 3D Atlas of Ann Arbor, 1st Edition	Arlinghaus, Sandra Lach; Editor and single principal co-author with numerous secondary co-authors noted throughout. June, 2006: Institute of Mathematical Geography. http://www.imagenet.org/	
Arlinghaus	2006 Solstice: An Electronic Journal of Geography and Mathematics	Arlinghaus, S. Book review of Wildberger, Norman, Divine Proportioins: Rational Trigonometry to Universal Geometry. Wild Egg Press, Australia.	
Arlinghaus	2006 Solstice: An Electronic Journal of Geography and Mathematics	Arlinghaus, Sandra Lach. 3D Atlas of Ann Arbor: The Google Earth Approach Part I; Part II. Volume XVII, Number 1, June.	
Arlinghaus	2006 Solstice: An Electronic Journal of Geography and Mathematics	Arlinghaus, Sandra L. and Batty, Michael. "Zipf's Hyperboloid?" Solstice: An Electronic Journal of Geography and Mathematics, Volume XVII, Number 1, June 2006. http://www.imagenet.org/	J
Arlinghaus	2006 Mathematical Reviews	MR2184706 (2006g:91131) Reviewer: Sandra L. Arlinghaus. Kempe, David; Kleinberg, Jon; and, Tardos, Eva. Influential Nodes in a Diffusion Model for Social Networks. Automata, languages and programming, 1127-1138, Lecture Notes in Comput. Sci., 3580, Springer; Berlin, 2005.	O
Arlinghaus	2006 Mathematical Reviews	**MR2179976 (2006e:90058)** Arriola, Rosario; Laporte, Gilbert; Ortega, Francisco A. The Weber problem in a multi-storey building. INFOR Inf. Syst. Oper. Res. 43 (2005), no. 3, 157--169. (Reviewer: Sandra L. Arlinghaus) 90B80 (90C90)	O
Arlinghaus	2006 Archimedes in Ann Arbor?	Report on 3D Atlas of Ann Arbor to Board of League of Women Voters.	R
Arlinghaus	2006 GEOMAT	Larimore, Ann E.; Arlinghaus, Sandra L.; and Haug, Robert. GEOMAT: presentation and report on trial course before Association of American Geographers, March 2006.	R
Arlinghaus	2006 Archimedes in Ann Arbor?	Interview with Tracy Davis, Ann Arbor News, concerning landuse in floodplains and 3D models.	R
Arlinghaus	2006 Archimedes in Ann Arbor?	Interview with Vivienne Armentrout, Ann Arbor Observer, concerning landuse in floodplains and 3D models.	R
Arlinghaus	2006 Book proposal review.	Arlinghaus, Sandra L. Invitation to submit written review of selected material for possible publication--John Wiley & Sons.	R

Arlinghaus	2006	Unleashing the Power of GIS/GPS	Arlinghaus, Sandra L. (Program Chair), John Corbett, Joseph J. Kerski, Teri Landrum, and Carol Miller. Unleashing the Power of GIS/GPS. Workshop co-sponsored by Taylor and Francis and AAG, March 6 and 7, Palmer House, Chicago, IL.	O
Arlinghaus	2006	Mathematical Reviews	**MR2147040 (2006a:90046)** Berman, Oded; Krass, Dmitry An improved IP formulation for the uncapacitated facility location problem: capitalizing on objective function structure. *Ann. Oper. Res.* 136 (2005), 21--34. (Reviewer: Sandra L. Arlinghaus) 90B80 (90C10)	O
Arlinghaus	2005	Spatial Synthesis	Arlinghaus, Sandra L. and Arlinghaus, William C. Spatial Synthesis, Volume I, Book 1. E-Book. Institute of Mathematical Geography. 200 pages depending on screen resolution. http://www.imagenet.org/ A component of this book was a semi-finalist, 2003, in the Pirelli INTERNETional Award Competition	B
Arlinghaus	2005	The Engineering Handbook, Second Edition	Richard C. Dorf, Editor-in-Chief. CRC Press. Chapter 165, Photogrammetry and Topographic Mapping. 1st Edition author: Jim Bethel; Second Edition co-authors: Sandra L. Arlinghaus and Robert F. Austin. Pages 165-1 to 165-15.	C
Arlinghaus	2005	Solstice: An Electronic Journal of Geography and Mathematics	Arlinghaus, Sandra L. and Arlinghaus, William C. Beyond the Shadow. Solstice: An Electronic Journal of Geography and Mathematics, Vol. XVI, Institute of Mathematical Geography, http://www.imagenet.org.	J
Arlinghaus	2005	Solstice: An Electronic Journal of Geography and Mathematics	Arlinghaus, Sandra L. News: Update on the 3D Atlas of Ann Arbor; Archimedes in Ann Arbor. Solstice: An Electronic Journal of Geography and Mathematics, Vol. XVI, Institute of Mathematical Geography, http://www.imagenet.org.	J
Arlinghaus	2005	Solstice: An Electronic Journal of Geography and Mathematics	Arlinghaus, Sandra L. Spatial Synthesis: The Evidence of Cartographic Example: Hierarchy and Centrality. Solstice: An Electronic Journal of Geography and Mathematics, Vol. XVI, Institute of Mathematical Geography, http://www.imagenet.org.	J

Arlinghaus	2005 Solstice: An Electronic Journal of Geography and Mathematics	Arlinghaus, Sandra L. with input from Klaus-Peter Beier, Matthew Naud, John D. Nystuen, Taejung Kwon, Adrien Lazzaro, Paul Oppenheim, Aaron Rosenbaum, Nikolai Nolan, Rasika Ramesh, Itzhak Shani. Kioskland: A Strategy for Linking Hierarchical Levels of Virtual Reality Maps. Solstice: An Electronic Journal of Geography and Mathematics, Vol. XVI, Institute of Mathematical Geography, http://www.imagenet.org.	J
Arlinghaus	2005 Mathematical Reviews	**MR2060723 (2005a:91105)** Alexander, J. McKenzie Random Boolean networks and evolutionary game theory. PSA 2002. Part I. *Philos. Sci.* **70** (2003), no. 5, 1289--1304. (Reviewer: Sandra L. Arlinghaus) 91D30 (91A22)	O
Arlinghaus	2005 Mathematical Reviews	**MR2063520 (2005d:90067)** Chen, Lihua; Deng, Xiaotie; Fang, Qizhi; Tian, Feng Majority equilibrium for public facility allocation (preliminary version). *Computing and combinatorics,* 435--444, Lecture Notes in Comput. Sci., 2697, *Springer, Berlin,* 2003. (Reviewer: Sandra L. Arlinghaus) 90B80 (91B12)	O
Arlinghaus	2005 Mathematical Reviews	**MR2073519 (2005b:90066)** Suárez-Vega, R.; Santos-Peñate, D. R.; Dorta-González, P. Discretization and resolution of the $(r\vert X\sb p)$-medianoid problem involving quality criteria. *Top* **12** (2004), no. 1, 111--133. (Reviewer: Sandra L. Arlinghaus) 90B85	O
Arlinghaus	2005 Mathematical Reviews	**MR2076016 (2005c:90041)** Paschos, Stratos A.; Paschos, Vangelis Th.; Zissimopoulos, Vassilis The antennas preassignment problem. *Chaos Solitons Fractals* **22** (2004), no. 4, 821--829. (Reviewer: Sandra L. Arlinghaus) 90B80 (90C59)	O
Arlinghaus	2005 Mathematical Reviews	**MR2108986 (2005h:91185)** Huberman, Bernardo A.; Adamic, Lada A. Information dynamics in the networked world. *Complex networks,* 371--398, Lecture Notes in Phys., 650, *Springer, Berlin,* 2004. (Reviewer: Sandra L. Arlinghaus) 91D30	O
Arlinghaus	2005 Mathematical Reviews	**MR2124125 (2005k:91243)** White, Douglas R. Ring cohesion theory in marriage and social networks. *Math. Sci. Hum. Math. Soc. Sci.* No. 168 (2004), 59--82. (Reviewer: Sandra L. Arlinghaus) 91D30 (05C90)	O
Arlinghaus	2005 Mathematical Reviews	**MR2115978 (2005h:90146)** Deweß, G. Minimal curves with limited curvature in cases of cost depending on location. *Optimization* **54** (2005), no. 1, 103--120. (Reviewer: Sandra L. Arlinghaus) 90C35 (90B80)	O

Arlinghaus	2005	Solstice: An Electronic Journal of Geography and Mathematics	Ann Evans Larimore with Sandra Lach Arlinghaus and Roberty Haug, Research Announcement: A Methodology for Historical Geography: Internet Implementation Solstice: An Electronic Journal of Geography and Mathematics, Vol. XVI, Institute of Mathematical Geography, http://www.imagenet.org.	O
Arlinghaus	2005	Solstice: An Electronic Journal of Geography and Mathematics	Arlinghaus, Sandra L. Research Announcement: Spatial Synthesis: Investigations in Progress. Solstice: An Electronic Journal of Geography and Mathematics, Vol. XVI, Institute of Mathematical Geography, http://www.imagenet.org.	O
Arlinghaus	2004	Solstice: An Electronic Journal of Geography and Mathematics	Arlinghaus, Sandra L. and Arlinghaus, William C. Spatial synthesis sampler. geometric visualization of hexagonal hierarchies: animation and virtual reality. Solstice: An Electronic Journal of Geography and Mathematics, Vol. XV, Institute of Mathematical Geography, http://www.imagenet.org.	J
Arlinghaus	2004	Solstice: An Electronic Journal of Geography and Mathematics	Arlinghaus, Sandra L., Beal, Fred J., and Kelbaugh, Douglas S. The View from the Top: Visualizing Downtown Ann Arbor in Three Dimensions. Solstice: An Electronic Journal of Geography and Mathematics, Vol. XV, Institute of Mathematical Geography, http://www.imagenet.org	J
Arlinghaus	2004	Solstice: An Electronic Journal of Geography and Mathematics	Arlinghaus, Sandra L. Spatial Synthesis: 3D Atlas of Ann Arbor Solstice: An Electronic Journal of Geography and Mathematics, Vol. XV, Institute of Mathematical Geography, http://www.imagenet.org.	J
Arlinghaus	2004	Solstice: An Electronic Journal of Geography and Mathematics	Arlinghaus, Sandra L. Goode's 80th! Vol. XV, Institute of Mathematical Geography, http://www.imagenet.org.	J
Arlinghaus	2004	Mathematical Reviews	**MR1990307 (2004e:05088)** Roberts, Fred S. On balanced signed graphs and consistent marked graphs. *Ordinal and symbolic data analysis (Amherst, MA, 1998),* 12 pp. (electronic), Electron. Notes Discrete Math., 2, *Elsevier, Amsterdam,* 1999. (Reviewer: Sandra L. Arlinghaus) 05C22	O
Arlinghaus	2004	Mathematical Reviews	**MR1985159 (2004c:91079)** Grossman, Jerrold W. The evolution of the mathematical research collaboration graph. Proceedings of the Thirty-third Southeastern International Conference on Combinatorics, Graph Theory and Computing (Boca Raton, FL, 2002). *Congr. Numer.* 158 (2002), 201--212. (Reviewer: Sandra L. Arlinghaus) 91D30 (01A80 05C80 05C90)	O

Arlinghaus	2004 Mathematical Reviews	**MR1978360 (2004b:05002)** Iturriaga, Claudia; Lubiw, Anna Elastic labels around the perimeter of a map. *J. Algorithms* **47** (2003), no. 1, 14--39. (Reviewer: Sandra L. Arlinghaus) 05-04 (68U05)	O
Arlinghaus	2004 Mathematical Reviews	**MR2035987 (2004k:90065)** Brimberg, Jack; Kakhki, H. Taghizadeh; Wesolowsky, George O. Location among regions with varying norms. Facility location modelling: papers in honor of Kenneth E. Rosing, Part I. *Ann. Oper. Res.* 122 (2003), 87--102. (Reviewer: Sandra L. Arlinghaus) 90B85 (90C30)	O
Arlinghaus	2004 Mathematical Reviews	**MR2032525 (2004j:05115)** Chen, Zhi-Zhong; He, Xin Disk embeddings of planar graphs. *Algorithmica* **38** (2004), no. 4, 539--576. (Reviewer: Sandra L. Arlinghaus) 05C85 (05C10)	O
Arlinghaus	2004 Solstice: An Electronic Journal of Geography and Mathematics	Arlinghaus, Sandra L. and Blake, Braxton. Research Announcement: Two Rivers Ridge: Capturing Art.	O
Arlinghaus	2003 Solstice: An Electronic Journal of Geography and Mathematics	Sandra Arlinghaus, Michael Batty, and John Nystuen. Animated Time Lines: Coordination of Spatial and Temporal Information, Solstice: An Electronic Journal of Geography and Mathematics, Volume XIV, Institute of Mathematical Geography, http://www.imagenet.org/	J
Arlinghaus	2003 Solstice: An Electronic Journal of Geography and Mathematics	Arlinghaus, Sandra Lach. Ann Arbor, Michigan: Virtual Downtown Experiments. Solstice: An Electronic Journal of Geography and Mathematics. Volume XIV. Institute of Mathematical Geography, http://www.imagenet.org/	J
Arlinghaus	2003 Solstice: An Electronic Journal of Geography and Mathematics	Arlinghaus, Sandra Lach. Tornado Siren Location: Ann Arbor, Michigan. Solstice: An Electronic Journal of Geography and Mathematics. Volume XIV. Institute of Mathematical Geography, http://www.imagenet.org/	J
Arlinghaus	2003 Solstice: An Electronic Journal of Geography and Mathematics	Arlinghaus, Sandra L., Haug, Robert, and Larimore, Ann. Lewis and Clark, 200 Years: A Visual Tribute to an Exploration. The Gates of the Rocky Mountains. Solstice: An Electronic Journal of Geography and Mathematics, Vol. XIV, Institute of Mathematical Geography, http://www.imagenet.org/	J
Arlinghaus	2003 Solstice: An Electronic Journal of Geography and Mathematics	Arlinghaus, Sandra L. Ann Arbor, Michigan: Virtual Downtown Experiments, Part II. The Gates of the Rocky Mountains. Solstice: An Electronic Journal of Geography and Mathematics, Vol. XIV, Institute of Mathematical Geography, http://www.imagenet.org/	J

Arlinghaus	2003 Mathematical Reviews	**MR1866408 (2003c:91049)** Klaus, Bettina Target rules for public choice economies on tree networks and in Euclidean spaces. *Theory and Decision* **51** (2001), no. 1, 13--29. (Reviewer: Sandra L. Arlinghaus) 91B18 (05C05 90B80)	O
Arlinghaus	2003 Mathematical Reviews	**MR1915249 (2003c:91087)** Dendrinos, Dimitrios S. Stimulus, expectations, desires and response strategies: the building blocks of nonlinear interaction dynamics. *Discrete Dyn. Nat. Soc.* **7** (2002), no. 3, 133--149. (Reviewer: Sandra L. Arlinghaus) 91D99	O
Arlinghaus	2002 Graph Theory and Geography: An Interactive View E-Book	Arlinghaus, Sandra L., Arlinghaus, William C., and Harary, Frank. Graph Theory and Geography: An Interactive View E-Book. Wiley-Interscience Series in Discrete Mathematics and Optimization, John Wiley and Sons (New York), April 2002. 400 pages depending on screen resolution. http://www.wiley.com/ This book was a finalist, 2002, in the international Pirelli INTERNETional Award competition, http://www.pirelliaward.com/ (shows current information only)	B
Arlinghaus	2002 Solstice: An Electronic Journal of Geography and Mathematics	Arlinghaus, Sandra L. and Arlinghaus, William C. Spatial Syntehsis: A Research Program, Solstice, An Electronic Journal of Geography and Mathematics, Vol. XIII, Institute of Mathematical Geography, http://www.imagenet.org/	J
Arlinghaus	2002 Mathematical Reviews	**MR1835275 (2002b:90025)** Alpern, Steve; Howard, J. V. Alternating search at two locations. *Dynam. Control* **10** (2000), no. 4, 319--339 (2001). (Reviewer: Sandra L. Arlinghaus) 90B40 (90C35 93C15)	O
Arlinghaus	2002 Mathematical Reviews	**MR1838929 (2002c:91026)** Durieu, Jacques; Solal, Philippe; Thoron, Sylvie Location games with externalities. *Economics with heterogeneous interacting agents (Marseille, 2000),* 251--263, Lecture Notes in Econom. and Math. Systems, 503, *Springer, Berlin,* 2001. (Reviewer: Sandra L. Arlinghaus) 91A40 (91B74)	O
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Arlinghaus	1998 Population-Environment Dynamics: Volume VII, Transitions and Sustainability	William D. Drake and Sandra L. Arlinghaus, Editors and authors of preliminary material; main chapters by students in NRE545. Population-Environment Dynamics. Volume VII, Transitions and Sustainability.	R, E, C
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Arlinghaus	1996 Population-Environment Dynamics: Volume V, Ten Case Studies	William D. Drake and Sandra L. Arlinghaus, Editors and authors of preliminary material; main chapters by students in NRE545. Population-Environment Dynamics. Volume V, Ten Case Studies.	R, E, C
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Arlinghaus	1995 Mathematical Reviews	**MR1228153 (95f:92028)** Haddad, Labib; Sureau, Yves Les groupes, les hypergroupes et l'énigme des Murngin---the Murngin case. (French) [Groups, hypergroups and the enigma of the Murngins---the Murngin case] *J. Pure Appl. Algebra* **87** (1993), no. 3, 221--235. (Reviewer: Sandra L. Arlinghaus) 92H10 (92H30)	O
Arlinghaus	1995 CSF Pakistan Missions--Reports	Set of reports concerning CSF Pakistan missions, World Bank; Arlinghaus contributed hundreds of GIS maps and PowerPoint displays to these CSF team-authored reports, 1995-1997.	C
Arlinghaus	1995 CSF Syria Missions--Reports	Set of reports concerning CSF Syria missions, UNFPA; Arlinghaus contributed hundreds of GIS maps and PowerPoint displays to these CSF team-authored reports, 1995-1997.	C
Arlinghaus	1995 Population-Environment Dynamics: Volume IV, Transitions in Global Change	William D. Drake and Sandra L. Arlinghaus, Editors and authors of preliminary material; main chapters by students in NRE545. Population-Environment Dynamics. Volume IV, Transitions in Global Change.	E
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Arlinghaus	1994 Geographical Review	Arlinghaus, Sandra L. Review of Hardisty, J., Taylor, D. M., Metcalfe, S. E. Computerized Environmental Modelling: A Practical Introduction using Excel. Chichester, Wiley, 1993. Geographical Review, Vol. 84, 344-345, July 1994.	O
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Arlinghaus	1994 Mathematical Reviews	**MR1244291 (94j:05132)** Everett, Martin G.; Borgatti, Stephen P. An extension of regular colouring of graphs to digraphs, networks and hypergraphs. *Social Networks* **15** (1993), no. 3, 237--254. (Reviewer: Sandra L. Arlinghaus) 05C90 (05C15 05C20 05C65)	O
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Arlinghaus	1993 Fractals in Geography	Fractals in Geography a book edited by Nina Lam and Lee DeCola, published May, 1993, Prentice-Hall. Arlinghaus, Sandra L., Chapter 10, Central Place Fractals.	C
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Arlinghaus	1993 Mathematical Reviews	**MR1153670 (93a:00011)** Fractal forms. Edited by Etienne Guyon and H. Eugene Stanley. With a foreword by Benoit B. Mandelbrot. *Elsevier Science Publishers, B.V., Amsterdam; Palais de la Découverte, Paris,* 1991. 48 pp. ISBN: 0-444-89125-0 (Reviewer: Sandra L. Arlinghaus) 00A69 (28A80 58F13 58F23)	O

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Arlinghaus	1993 Population-Environment Dynamics: Volume II, Population-Environment Interaction	William D. Drake and Sandra L. Arlinghaus, Editors and authors of preliminary material; main chapters by students in NRE545. Population-Environment Dynamics. Volume II, Population-Environment Interaction.	E
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Arlinghaus	1992 Population-Environment Dynamics: Volume I, Sectors in Transition	William D. Drake and Sandra L. Arlinghaus, Editors and authors of preliminary material; main chapters by students in NRE545. Population-Environment Dynamics. Volume I, Sectors in Transition.	E

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Arlinghaus	1990	Solstice: An Electronic Journal of Geography and Mathematics	Founding editor, continuing to the present. Solstice has been written about in Science, Science News, and was a semi-finalist, 2001, in the Pirelli INTERNETional Award competition.	E
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Arlinghaus	1990 Abstracts: American Mathematical Society	Arlinghaus, Sandra L. Geographic location theory: Selected topics, Abstracts of the American Mathematical Society, August, 1990.	O
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Arlinghaus	1989 An Atlas of Steiner Networks	Arlinghaus, Sandra L. An Atlas of Steiner Networks. Institute of Mathematical Geography, Monograph Series, #9. 84 pages	B
Arlinghaus	1989 Environmental Effects on Bus Durability	Arlinghaus, Sandra L. and Nystuen, John D. Environmental Effects on Bus Durability. Institute of Mathematical Geography, Monograph Series, #11. 104 pages. http://www.imagenet.org/	B
Arlinghaus	1989 Geographical Analysis: an International Journal of Theoretical Geography	Arlinghaus, Sandra L. and Arlinghaus, William C. The fractal theory of central place hierarchies: a Diophantine analysis of fractal generators for arbitrary Loschian numbers, Geographical Analysis: an International Journal of Theoretical Geography. Ohio State University Press. Vol. 21, No. 2, April, 1989, pp. 103-121.	J
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Arlinghaus	1987 Essays on Mathematical Geography, II	Arlinghaus, Sandra L. Essays on Mathematical Geography, II. Institute of Mathematical Geography, Monograph Series, #5.	B
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Arlinghaus	1986 Down the Mail Tubes: The Pressured Postal Era, 1853-1984	Arlinghaus, Sandra L. Down the Mail Tubes: The Pressured Postal Era, 1853-1984. Institute of Mathematical Geography, Monograph Series: #2. 79 pages.	B
Arlinghaus	1986 Essays on Mathematical Geography	Arlinghaus, Sandra L. Essays on Mathematical Geography. Institute of Mathematical Geography, Monograph Series, #3. 167 pages.	B
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