

Max J. Egenhofer

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Education

1989: Ph.D., Surveying Engineering, University of Maine
1985: Dipl.-Ing., Surveying Engineering, Stuttgart University, Germany

Employment

since 1985: University of Maine

- Professor (Associate Professor 1994-1999; Assistant Professor 1992-1994) in Spatial Information Science and Engineering, 1999-ongoing
- Director (through 1996 called Associate Director), National Center for Geographic Information and Analysis, 1993-2006
- Cooperating Professor in Computer Science, 1991-2011
- Graduate Coordinator, Department of Spatial Information Science and Engineering, 1997-2003 and 2006-2009
- Visiting Scientist, Instituto Nacional de Pesquisas Espaciais (INPE), São José dos Campos, Brazil, 2009
- Visiting Professor, Institute for Geoinformatics, Westfälische Wilhelms-Universität Münster, Germany, 2004
- Visiting Professor, Dipartimento di Ingegneria Elettrica, Università degli Studi dell'Aquila, L'Aquila, Italy, 1993
- Research Assistant Professor in Surveying Engineering, 1990-1992
- Research Associate, National Center for Geographic Information and Analysis, 1989-1990
- Graduate Research Assistant, Department of Surveying Engineering, 1985-1989

1983 to 1985: University of Stuttgart, Germany

- Research Assistant, Institute for the Applications of Geodesy in Constructions, 1985
- Graduate Research Assistant, Institute for the Applications of Geodesy in Constructions, 1983-1984

1982 to 1983: Swiss Federal Institute of Technology (ETH Zurich), Switzerland

- Graduate Research Assistant, Institute for Geodesy and Photogrammetry

Consulting

- Canadian Hydrographic Service, Ottawa, Canada
- Centro Nacional Informação Geográfica, Lisbon, Portugal
- Corporate Decisions, Boston, MA
- DeLorme, Freeport, ME
- Howrey, LLP, Washington, DC
- Intelligent Spatial Technologies, Orono, ME
- Kork Systems, Bangor, ME
- Microsoft Research, Cambridge, UK

- National Ocean Service, Silverspring, MD
- Oracle Canada, Hull, Ontario, Canada
- Prime Computer, Inc., Natick, MA
- Resolution Mapping, Damariscotta, ME

Honors and Awards

- Dean's Award of Excellence, University of Maine, 2007
- Researcher of the Year, University Consortium of Geographic Information Science, 2003
- Recognition by Joint Order of the State of Maine's Senate and House of Representatives, 2002
- Presidential Research and Creative Achievement Award, University of Maine, 2002
- College of Engineering's Libra Professor, University of Maine, 1998-2002

Patents

- C. Frank and M. Egenhofer, *Mobile Device and Geographic Information System*, US Patent 8,023,962 Inventors: C. Frank and M. Egenhofer, issued September 20, 2011
- C. Frank and M. Egenhofer, *Mobile Device and Geographic Information System*, US Patent 7,245,923, Inventors: C. Frank and M. Egenhofer, issued July 17, 2007

Research Grants and Contracts

- A Theory of Topological Relations for Compound Spatial Objects, 2010, National Science Foundation, \$500,000
- Toward the Semantic Geospatial Web, Part 4, 2005, National Geospatial-Intelligence Agency, PI: M. Egenhofer, \$134,000
- Intelligent Spatial Technologies, Part 4, 2005, National Geospatial-Intelligence Agency, PIs: M. Egenhofer and K. Beard, \$500,000
- Toward the Semantic Geospatial Web, Part 3, 2005, National Geospatial-Intelligence Agency, PI: M. Egenhofer, \$165,000
- Toward the Semantic Geospatial Web, Part 2, 2003, National Imagery and Mapping Agency, PI: M. Egenhofer, \$50,000
- Intelligent Spatial Technologies, Part 3, 2003, National Imagery and Mapping Agency, PIs: M. Egenhofer and K. Beard, \$1,000,000
- Intelligent Spatial Technologies, Part 2, 2002, National Imagery and Mapping Agency, PIs: M. Egenhofer and K. Beard, \$996,000
- Toward the Semantic Geospatial Web, 2002, National Imagery and Mapping Agency, PI: M. Egenhofer, \$175,000
- Intelligent Spatial Technologies, 2001, National Imagery and Mapping Agency, PIs: M. Egenhofer and K. Beard, \$1,982,000
- Ontologies for Aerial Image Integration, 2001, Maine Science and Technology Foundation, PI: M. Egenhofer, \$10,000
- University of Maine Research Infrastructure to Enhance Maine's High-Technology Industries, National Science Foundation, 2000, PIs: D. Dwyer, H. Almquist, M. Egenhofer, and R. Lad, \$4,118,317
- Spatio-Temporal Panning and Zooming, 2000, National Imagery and Mapping Agency, PIs: K. Hornsby, R. Franzosa, and M. Egenhofer, \$376,400
- Spatial Sketches on a Palm Pilot, 2000, Lockheed-Martin M&DS, PI: M. Egenhofer, \$25,000
- Semantics in Distributed Web Mapping, 2000, Lockheed-Martin M&DS, PI: M. Egenhofer, \$20,000
- Semantic Similarity over Instances, 2000, National Imagery and Mapping Agency, PI: M. Egenhofer, \$165,000

- Spatio-Temporal GIS Analysis for Environmental Health, 1999, National Institute of Environmental Health Sciences, NIH, PI: M. Egenhofer, \$775,800
- NSF-CNPq Collaboration on Integrating Geographic Information, 1999, National Science Foundation, PI: M. Egenhofer, \$150,000
- Using Ontologies for Aerial Image Integration, 1999, Maine Science and Technology Foundation, PI: M. Egenhofer, \$10,000
- Semantic Similarity Assessment, 1999, Lockheed-Martin M&DS, PI: M. Egenhofer, \$30,000
- Constraint-Based Processing of Multi-Way Spatial Joins, 1999, Hong Kong Research Grants Council, PIs: D. Papadias and M. Egenhofer, \$55,000
- A Framework for the Dissemination, Use and Storage of Geospatial Images for Field Data Collection, 1999, National Science Foundation, PIs: S. Nusser, G. Covert, P. Siegel, and M. Egenhofer, \$40,000
- Predicting Spatial Locations from Spatio-Temporal Change Parameters, 1998, GE Corporate Research and Development Center, PIs: M. Egenhofer and K. Beard, \$40,000
- Assessing Object-Oriented Concepts in Smallworld GIS, 1998, Bangor Hydro-Electric Co., PIs: M. Egenhofer and K. Beard, \$18,500
- Advancing Geographic Information Science, 1997, National Science Foundation, PIs: M. Egenhofer, H. Onsrud, K. Beard, P. Agouris, and S. Overmyer, \$379,000
- Center of Excellence in Remote Sensing Applications, 1997, National Aeronautics and Space Administration, PIs: S. Sader, P. Agouris, K. Beard, M. Egenhofer, A. Kimball, A. Stefanidis, and A. Thomas, \$247,900
- Heterogeneous Geographic Databases: Qualitative Spatio-Temporal Inferences, 1997, Advanced Research and Development Committee of the Community Management Staff, Central Intelligence Agency, PI: M. Egenhofer, \$220,000
- Similarity Assessments Based on Spatial Relations and Attributes, 1997, National Imagery and Mapping Agency, PI: M. Egenhofer, \$599,900
- Application of Spatial Concepts to Genome Data, 1997, National Science Foundation, PIs: K. Beard, M. Egenhofer, and C. Bult, \$329,000
- GIS Modeling Language Standards Review and Recommendations, 1997, Federal Geographic Data Committee, PIs: J. Dobson and M. Egenhofer, \$35,700
- Multi-Modal Spatial Querying, National Science Foundation, 1996, PIs: M. Egenhofer and S. Overmyer, \$482,600
- Heterogeneous Geographic Databases: Similarity Assessments, 1996, Advanced Research and Development Committee of the Community Management Staff, Central Intelligence Agency, PI: M. Egenhofer, \$209,700
- Image-Retrieval-by-Sketch, 1996, Office of Research and Development, PIs: M. Egenhofer and P. Agouris, \$80,000
- Spatial-Query-by-Sketch, 1995, Rome Laboratory, PI: M. Egenhofer, \$199,900
- Heterogeneous Geographic Databases, 1995, Advanced Research and Development Committee of the Community Management Staff, Central Intelligence Agency, PI: M. Egenhofer, \$207,500
- Access to Large Image Archives: User Interface Design, 1995, Space Imaging, PI: M. Egenhofer, \$33,900
- BASIN—A Browsable HyperArchive of Spatial Information on the Net, 1994, Academic Computing Advisory Committee, University of Maine, PIs: K. Beard, M. Egenhofer, P. Garder, J. Gilbert, M. Lutz, B. Pearce, T. Jordan, L. Morin, and S. Sader, \$84,000
- The Alexandria Project: Towards a Distributed Digital Library with Comprehensive Services for Images and Spatially-Referenced Information, 1994, National Science Foundation, with 26 other investigators at UC Santa Barbara, University of Maine, and SUNY Buffalo, \$4,000,000
- Research Experience for Undergraduates, 1994, National Science Foundation, PI: M. Egenhofer, \$4,200
- Cognitive Aspects of User Interface Design for Geographic Information Systems, 1994, Advanced Research Projects Agency, PI: M. Egenhofer, \$15,000

- Cross-Cultural Differences in Spatial Concepts: Application to Spatial Information System Use, 1994, Scientific and Environmental Affairs Division of the North Atlantic Treaty Organization, PIs: M. Gould and M. Egenhofer, 140,000 Belgium Francs
- GIS for Local Educational Agencies in the State of Maine, 1994, Maine Mathematics and Science Alliance, PIs: M. Egenhofer and K. Hornsby, \$3,600
- RIA: Formalization, Inference, and Query Processing of Spatial Relations in Geographic Space, 1993, National Science Foundation, PI: M. Egenhofer, \$97,300
- National Center for Geographic Information and Analysis, Year 6-8, 1993, National Science Foundation, PIs: D. Tyler, M. Egenhofer, H. Onsrud, and K. Beard, \$1,380,000
- Direct-Manipulation User Interface Design Tools for GISs, 1993, Environmental Systems Research Institute, PI: M. Egenhofer, \$15,000
- Database Requirements for Vehicle Navigation Systems, 1993, Faculty Summer Research Award, University of Maine, PI: M. Egenhofer, \$5,000
- Spatial Reasoning, Intergraph Corporation, 1992, PIs: A. Frank and M. Egenhofer, \$157,000
- National Center for Geographic Information and Analysis, 1992, Year 5, National Science Foundation, PIs: D. Tyler, H. Onsrud, K. Beard, and M. Egenhofer, \$308,000
- Integrated Service Delivery System—Year 2, 1991, Digital Equipment Corporation, PIs: A. Frank and M. Egenhofer, \$80,000
- National Center for Geographic Information and Analysis, Year 4, 1991, National Science Foundation, PIs: D. Tyler, H. Onsrud, M. Egenhofer, K. Beard, and A. Frank, \$307,700
- Integrated Service Delivery System, 1989, Digital Equipment Corporation, PIs: A. Frank and M. Egenhofer, \$200,000
- Object-Oriented Information Technology, 1989, Maine Science and Technology Commission, PIs: A. Frank and M. Egenhofer, \$5,000

Keynote Addresses and Invited Conference Talks

- *Computational Challenges in GIScience*, Workshop on Multidimensional Geoinformation, Karlsruhe, Germany, October 2010
- *Qualitative Spatial-Relation Reasoning for Design*, Workshop on Studying Visual and Spatial Reasoning for Design Creativity, Aix-en-Provence, France, June 2010
- *Trends and Innovation in Geoinformatics*, Geoinformatik 2009, Osnabrück, Germany, March 2009
- *Spatializing Ontologies*, Terra Cognita 2008 Geospatial Semantic Web Workshop, Karlsruhe, Germany, October 2008
- *Text2Sketch and Sketch2Text: Dependencies of Natural-Language Spatial Predicates and Corresponding Graphical Depictions*, Text to Sketch Workshop, Hot Springs, VA, August 2008
- *Spatial Computing—Everywhere*, Scientific Colloquium—60th Birthday of Andrew U. Frank, Vienna, Austria, June 2008
- *Facets of Complicated Features*, Complicated Features Workshop, Warrenton, VA, November 2007
- *User Interaction in Ubiquitous Spatial Computing*, Ubiquitous Spatial Computing Specialist Meeting, Portland, ME, January 2007
- *Geospatial Semantic Web: From Terra Incognita to Terra Cognita*, Terra Cognita—Directions to the Geospatial Semantic Web, Workshop at the International Semantic Web Conference ISWC'06, Athens, GA, November 2006
- *Problem Solving with Spatial Calculi*, Spatial Cognition: Specialization and Integration, Dagstuhl Castle, Germany, December 2005
- *Spatial Computing: Embedded in Space and in the Users' Hands*, GeoInfo 2005, Campos do Jordão, Brazil, November 2005
- *Ubiquitous Spatial Computing*, GeoInformatics '05, Toronto, Canada, August 2005
- *Algorithmic Challenges in Spatial Computing*, WADS 2005—Workshop on Algorithms and Data Structures, Waterloo, Canada, August 2005

- *Geo-Ontometry: Beyond Geo-Ontologies*, First International Workshop on Conceptual Modeling for GIS, Shanghai, China, November 2004
- *Mobile Space*, Spatial Cognition 2004, Frauenchiemsee, Germany, Oktober 2004
- *Going Mobile with GIS: Mobile Space*, GI-days, Münster, Germany, July 2004
- *A Grand Challenge for Geographic Information Science*, Geoide Summer School 2004, Ottawa, Canada, May 2004
- *Information Systems Fueled with Data from Geo-Sensor Networks*, Information Systems in Geomanagement, Aachen, Germany, March 2004
- *Interactions with the Magic Wand*, Geovisualisation—EuroConference on Methods to Support Interactions in Geovisualisation Environments, Kolybari, Greece, March 2004
- *A Family of Smart Maps*, W²GIS: Third International Workshop on Web and Wireless Geographical Information Systems, Rome, Italy, December 2003
- *Spatial Semantics on the Geospatial Semantic Web*, GEOPRO 2003: International Workshop on Semantic Processing of Spatial Data, Mexico City, Mexico, November 2003
- *Sensors, Sensors Everywhere*, GeoSensor Networks 2003, Portland, ME, October 2003
- *Multi-Representation Spatial Databases*, Technology for a National GeoDatabase Infrastructure, Siena, Italy, September 2003
- *Toward the Semantic Geospatial Web*, ACM-GIS 2002—10th ACM International Symposium on Advances in Geographic Information Systems, McLean, VA, November 2002
- *Spatial Web*, 16th Simpósio Brasileiro de Banco de Dados, Rio de Janeiro, Brazil, October 2001
- *Intersection of Geographic Information and Information Technology: Spatial Databases*, Workshop on Intersection of Geospatial Information and Information Technology, Computer Science and Telecommunications Board of the National Academies, Arlington, VA, October 2001
- *Future Surveying Gadgets*, Massachusetts Association of Land Surveyors and Civil Engineers Annual Convention, Leominster, MA, September 2001
- *iMaps: Mobile Geographic Information Systems*, Maine GIS Users Group Annual Conference, Bangor, ME, May 2001
- *Advances in GIScience Toward Web-Based Arctic GIS*, Arctic Geographic Information Systems Workshop, Seattle, WA, January 2001
- *Research Directions for Spatial Information Systems—From “Knowing Your Location” to “Spatial Forecasting,”* Twelve Annual Colloquium of the Spatial Information Research Centre, Dunedin, New Zealand, December 2000
- *Theory-Based Assessment of Semantic Similarity*, EURESCO Conference on Ontology and Epistemology for Spatial Data Standard, La Londe-les-Maures, France, September 2000
- *Computational Models for Spatio-Temporal Movement*, GeoInfo 2000, São Paulo, Brazil, June 2000
- *Interoperating Geographic Information Systems*, GeoBrazil, São Paulo, Brazil, June 2000
- *Going Mobile with GIS*, International Workshop on Emerging Technologies for Geo-Based Applications, Ascona, Switzerland, May 2000
- *Spatial Information Appliances: A Next Generation of Geographic Information Systems*, Joint Session of the Brazilian Computer Graphics and Image Processing Conference and the Brazilian Workshop on GeoInformatics, Campinas, Brazil, October 1999
- *Spatial Data Models: State of the Art and Beyond*, After the Genome V, Jackson Hole, WY, October 1999
- *Spatial Reasoning and Spatial Information Retrieval*, AAAI Fall Symposium Workshop on Formalizing Reasoning with Visual and Diagrammatic Representations, Orlando, FL, October 1998
- *Smart Maps*, GIS '97: 5th ACM Workshop on Geographic Information Systems, Las Vegas, NV, November 1997
- *Geographic Information Science: Cognition and Computation*, VL '97—IEEE Symposium on Visual Languages, Giornata su sistemi informativi per il territorio, Salerno, Italy, September 1997
- *Spatial Relationships and their Future Applications*, Advanced Database Symposium (ADBS '96), Tokyo, Japan, December 1996

- *R&D Issues in Large Spatial Databases*, Lockheed Martin Corporate-Wide Geographic Information System/Image Processing/Global Positioning Conference, State College, PA, November 1996
- *Geographic Database Systems: Issues and Research Needs*, Fifteenth ACM SIGACT-SIGMOD-SIGART Symposium on Principles of Database Systems (PODS), Montreal, Canada, June 1996
- *Open GIS = GIS on the Web*, Joint European Conference on Geographical Information, Barcelona, Spain, March 1996
- *Object-Oriented Needs for Navigable Databases*, CalTrans Workshop on Navigable Databases, Santa Barbara, CA, March 1996
- *Spatial Data Models*, International Workshop on Data Models for Global Change, Santa Fe, NM, February 1996
- *Qualitative Details for the Definition of Natural-Language Spatial Relations between Lines and Region*, Spacenet Workshop, Semmering, Austria, September 1995
- *Object-Oriented GIS: The Concepts*, Simpósio Brasileiro de Geoprocessamento, São Paulo, Brazil, July 1995
- *Commonsense Reasoning about Geographic Space and Time*, Workshop on Spatial and Temporal Interaction: Representation and Reasoning, Singapore, November 1994
- *What's so Tough About Time (and Space)*, International Workshop on an Infrastructure for Temporal Databases, Arlington, TX, June 1993
- *Prospective Views of GIS Technologies and Applications*, Simpósio Brasileiro de Geoprocessamento, São Paulo, Brazil, May 1990
- *Spatial Query Languages: Graphic and Geometry*, Digital Equipment's Advanced Problem Workshop on Graphics Integration, Snowbird, UT, July 1988

Courses

- SIE 102, Principles of Information Systems
- ISE 350, Junior Seminar
- ISE 402, Information Retrieval
- SIE 451, Design of Information Systems
- SIE 501, Introduction to Graduate Research
- SIE 502, Research Methods
- SIE 551, GIS User Interface Design
- SIE 553, Geometry for GIS
- SIE 554, Spatial Reasoning
- SIE 698-1, Spatio-Temporal Reasoning
- SIE 698-2, Object Orientation for GIS
- SIE 698-3, Geographic Database Systems

Invited Lectures

- Air Force Research Laboratory
- Argonne National Laboratory
- Canadian Hydrographic Service
- Central Intelligence Agency
- Centro de Pesquisa e Desenvolvimento em Telecomunicações, Brazil
- Defense Advanced Research Projects Agency
- FernUniversität Hagen, Germany
- GE Corporate Research and Development Center
- HP Labs
- IBM Scientific Center in Rio de Janeiro, Brazil
- Instituto Nacional de Pesquisas Espaciais, Brazil
- Instituto de Matemática Pura e Aplicada, Brazil

- Intergraph Corporation
- Lockheed Martin
- Louisiana State University
- Oracle Corporation
- Purdue University
- Simon Fraser University, Canada
- Southwest Texas State University
- The Ohio State University
- Universidad de Concepción, Chile
- University College Dublin, Ireland
- University of Bremen, Germany
- University of California at Santa Barbara
- University of Connecticut
- University of Michigan
- University of Nebraska-Lincoln
- University of the Bundeswehr München, Germany
- University of Tokyo, Japan
- University of Washington
- Technical University Munich, Germany
- Westfälische Wilhelms-Universität Münster, Germany

Tutorials

- M. Egenhofer, *Principles of GIS and Spatio-Temporal Databases for Environmental Information*, Excellence Course on Engineering Geology, Geotechnics and Planning, Bari, Italy, May 2005
- M. Egenhofer, *Spatial Reasoning*, Geoide Summer School 2004, Ottawa, Canada, June 2004
- M. Egenhofer, *Topological Reasoning in Geographic Space*, International Spatial Cognition Summer Institute, Bad Zwischenahn, Germany, August 2003
- M. Egenhofer, *Spatial Relations: Models and Inferences*, Fifth International Symposium on Large Spatial Databases, SSD '97, Berlin, Germany, July 1997
- M. Egenhofer, *Knowledge Representation for Geographic Data*, First NCGIA Summer Institute, Santa Barbara, CA, August 1994
- M. Egenhofer, *Spatial Query Languages for GIS*, Third International Symposium on Large Spatial Databases, Singapore, June 1993
- M. Egenhofer, *GIS Query Languages, From Space to Territory—Spatio-Temporal Reasoning*, Pisa, Italy, September 1992
- A. Frank and M. Egenhofer, *Geographic Databases—The Issues and Some of the Solutions*, 5th International Symposium on Spatial Data Handling, Charleston, SC, August 1992
- A. Frank, W. Kuhn, and M. Egenhofer, *Geographic Databases: The Issues and Some of the Solutions, Extending Database Technology (EDBT)*, Vienna, Austria, March 1992
- M. Egenhofer, *Spatial Query Languages*, 4th International Symposium on Spatial Data Handling, Zurich, Switzerland, July 1990
- A. Frank and M. Egenhofer, *Object-Oriented Models for Spatial Information Systems*, 4th International Symposium on Spatial Data Handling, Zurich, Switzerland, July 1990
- A. Frank and M. Egenhofer, *Object-Oriented Models for GIS*, ISPRS Workshop on Data Fusion, Orono, ME, January 1990
- M. Egenhofer and A. Frank, *Advanced Topics in GIS Data Organization*, GIS/LIS '89, Orlando, FL, November 1989
- A. Frank and M. Egenhofer, *Database Technology for GIS*, GIS/LIS '88, San Antonio, TX, November 1988

- A. Frank and M. Egenhofer, *Object-Oriented Databases for Geographic Information Systems*, 3rd International Symposium on Spatial Data Handling, Sydney, Australia, August 1988

Post-Doctoral Advisees

- Khaled Al-Taha, 1992
- Michela Bertolotto, 1998-2000
- Jorge Campos, 2004
- Yves Dennebouy, 1996-1997
- Douglas Flewelling, 1997-1999
- Frederico Fonseca, 2001-2001
- Scott Friendschuh, 1993-1994
- Kathleen Hornsby, 1999-2001
- Hae-Kyong Kang, 2006-2007
- Lars Kulik, 2002-2004
- Dimitris Papadias, 1995-1996
- Anthony Stefanidis, 1997-1998
- Nectaria Tryfona, 1995-1997

Ph.D. Committees

First Advisor of Completed Doctoral Degrees

- Zhong Zhao, Ph.D. in Spatial Information Science and Engineering, University of Maine, *An Integrated Approach to Location Modeling*, Fall 2011
- Maria Vasardani, Ph.D. in Spatial Information Science and Engineering, University of Maine, *Qualitative Spatial Reasoning with Holed Regions*, Fall 2009
- Yohei Kurata, Ph.D. in Spatial Information Science and Engineering, University of Maine, *Arrow Symbols: Theory for Interpretation*, Spring 2007
- Konstantinos Nedas, Ph.D. in Spatial Information Science and Engineering, University of Maine, *Semantic Similarity of Spatial Scenes*, Summer 2006
- Jorge Campos, Ph.D. in Spatial Information Science and Engineering, University of Maine, *A Data Model for Exploration of Temporal Virtual Reality Geographic Information Systems*, Summer 2004
- Michael Hendricks, Ph.D. in Spatial Information Science and Engineering, University of Maine, *Structuring a Wayfinder's Dynamic and Uncertain Environment*, Spring 2004
- Frederico Fonseca, Ph.D. in Spatial Information Science and Engineering, University of Maine, *Ontology-Driven Geographic Information Systems*, Spring 2001
- Andrea Rodríguez, Ph.D. in Spatial Information Science and Engineering, University of Maine, *Assessing Semantic Similarity Among Spatial Entity Classes*, Spring 2000
- Roop Goyal, Ph.D. in Spatial Information Science and Engineering, University of Maine, *Similarity Assessment for Cardinal Directions Between Extended Spatial Objects*, Spring 2000
- Andreas Blaser, Ph.D. in Spatial Information Science and Engineering, University of Maine, *Sketching Spatial Queries*, Spring 2000
- Kathleen Hornsby, Ph.D. in Spatial Information Science and Engineering, University of Maine, *Reasoning about Spatio-Temporal Change: An Identity-Based Approach*, Spring 1999
- João Paiva, Ph.D. in Spatial Information Science and Engineering, University of Maine, *Topological Equivalence and Similarity in Multiple Representation Geographic Databases*, Fall 1998
- Douglas Flewelling, Ph.D. in Spatial Information Science and Engineering, University of Maine, *Comparing Subsets from Digital Spatial Archives: Point Set Similarity*, Spring 1997
- Rashid Shariff, Ph.D. in Spatial Information Science and Engineering, University of Maine, *Natural Language Spatial Relations: Metric Refinements of Topological Properties*, Summer 1996

- Jayant Sharma, Ph.D. in Spatial Information Science and Engineering, University of Maine, *Heterogeneous Spatial Reasoning in Geographic Information Systems: Combining Topology and Directions*, Spring 1996
- Jung-Hong Hong, Ph.D. in Surveying Engineering, University of Maine, *Qualitative Distance and Direction Reasoning in Geographic Space*, Summer 1994

Committee Member of Completed Doctoral Degrees

- Stephan Mäs, Dr.-Ing., University of the Armed Forces, Munich, Germany, Fall 2009.
- Jixiang Jiang, Ph.D. in Spatial Information Science and Engineering, University of Maine, Summer 2009
- Sotirios Gyftakis, Ph.D. in Spatial Information Science and Engineering, University of Maine, Spring 2005
- Paul Schroeder, Ph.D. in Spatial Information Science and Engineering, University of Maine, Summer 2003
- Panos Partsinevelos, Ph.D. in Spatial Information Science and Engineering, University of Maine, Fall 2002
- Thomas Windholz, Ph.D. in Spatial Information Science and Engineering, University of Maine, Spring 2001
- James Carswell, Ph.D. in Spatial Information Science and Engineering, University of Maine, Spring 2000
- Beshem Ramlal, Ph.D. in Spatial Information Science and Engineering, University of Maine, Summer 1996
- Xavier Lopez, Ph.D. in Spatial Information Science and Engineering, University of Maine, Spring 1996
- Khaled Hassen, Ph.D. in Spatial Information Science and Engineering, University of Maine, Fall 1995
- David Pullar, Ph.D. in Surveying Engineering, University of Maine, Spring 1994
- Khaled Al-Taha, Ph.D. in Surveying Engineering, University of Maine, Fall 1992
- Taher Buyong, Ph.D. in Surveying Engineering, University of Maine, Spring 1992
- Douglas Hudson, Ph.D. in Surveying Engineering, University of Maine, Spring 1990

External Examiner of Completed Doctoral Degrees

- Carlos Hernández-Gracidás, Ph.D., Instituto Nacional de Astrofísica, Óptica y Electrónica, Puebla, Mexico (in progress)
- Sylvia Ovenall, Ph.D. in Information Science, University of Otago, New Zealand, 2008
- Paul Crowther, Ph.D. in Computing, University of Tasmania, Australia, 1999
- Kris Koperski, Ph.D. in Computing Science, Simon Fraser University, Canada, Spring 1999
- Michela Bertolotto, Ph.D. (in Computer Science), University of Genoa, Italy, Spring 1998
- Thierry Ubeda, Ph.D. in Computer Science, Institut National des Sciences Appliquées de Lyon, France, Fall 1997
- Georg Kösters, Dr. rer. nat. (in Computer Science), FernUniversität Hagen, Germany, Fall 1997
- Simon Pigot, Ph.D. in Surveying and Spatial Information Science, University of Tasmania, Australia, Spring 1995
- Y. Zhang, Ph.D. in Computer Science, Worcester Polytechnic Institute, Spring 1994

Master's Committees

First Advisor of Completed Master's Degrees

- Matthew Dube, M.S. in Spatial Information Science and Engineering, University of Maine, An Embedding Graph for Topological Spatial Relations, Spring 2009
- Michael Howie, M.S. in Spatial Information Science and Engineering, University of Maine, Fall 2007

- Dominik Wilmsen, M.S. in Spatial Information Science and Engineering, University of Maine, Derivation of Change from Sequences of Snapshots, Fall 2006
- Stephen Cole, M.S. in Spatial Information Science and Engineering, University of Maine, Modeling Vessel Events and Notification Triggers in a Harbor Domain, Fall 2005 (co-advised with K. Hornsby)
- Suzannah Hall, M.S. in Spatial Information Science and Engineering, University of Maine, Ordering Events for Dynamic Geospatial Domains, Fall 2004 (co-advised with K. Hornsby)
- Inga Mau, M.S. in Spatial Information Science and Engineering, University of Maine, Spring 2004
- Farhan Faisal, M.S. in Spatial Information Science and Engineering, University of Maine, Fall 2003
- Chris Frank, M.S. in Spatial Information Science and Engineering, University of Maine, Fall 2003
- Markus Wuersch, M.S. in Spatial Information Science and Engineering, University of Maine, Fall 2003
- Brian Bailey, M.S. in Spatial Information Science and Engineering, University of Maine, Spring 2003
- David Caduff, M.S. in Spatial Information Science and Engineering, University of Maine, Sketch-Based Queries in Mobile GIS Environments, Fall 2002
- Chitra Ramalingam, M.S. in Spatial Information Science and Engineering, University of Maine, Modeling Multiple Granularities of Spatial Objects, Fall 2002 (co-advised with K. Hornsby)
- Ray Voyer, M.S. in Spatial Information Science and Engineering, University of Maine, Spring 2002
- Ramaswamy Hariharan, M.S. in Spatial Information Science and Engineering, University of Maine, Modeling Intersections of Geospatial Lifelines, Fall 2001
- Craig Miller, M.S. in Spatial Information Science and Engineering, University of Maine, Summer 2000
- David Fedorchak, M.S. in Spatial Information Science and Engineering, University of Maine, Spring 2000
- Korapin Phayakprakarm, M.S. in Spatial Information Science and Engineering, University of Maine, Fall 1999
- Martin Raubal, M.S. in Spatial Information Science and Engineering, University of Maine, Structuring Wayfinding Tasks with Image Schemata, Fall 1997
- John Florence, M.S. in Spatial Information Science and Engineering, University of Maine, Predicting Frequencies of Topological Relations in Geographic Dataset, Summer 1997
- Andrea Rodríguez, M.S. in Spatial Information Science and Engineering, University of Maine, Image-Schemata-based Spatial Inferences: The Container-Surface Algebra for Solid Objects, Summer 1997
- Brad Root, M.S. in Spatial Information Science and Engineering, University of Maine, Fall 1996
- Nancy Selvaggio, M.S. in Geographic Information, University of Maine, Spring 1996
- Richard Ozog, M.S. in Geographic Information, University of Maine, Fall 1995
- Anthony Sleezer, M.S. in Surveying Engineering, University of Maine, Direct Manipulation of Temporally Constrained Activities for Geographic Modeling, Fall 1994
- Tom Bruns, M.S. in Surveying Engineering, University of Maine, Direct Manipulation User Interfaces for GIS Map Algebra, Summer 1994
- Jayant Sharma, M.S. in Computer Science, University of Maine, Topological Relations in Raster and Vector Space, Summer 1993
- James Richards, M.S. in Surveying Engineering, University of Maine, Exploratory Access to Geographic Data Based on the Map-Overlay Metaphor, Spring 1993
- David Pollock, M.E. in Surveying Engineering, University of Maine, Spring 1993
- Gary Volta, M.S. in Surveying Engineering, University of Maine, Interaction with Attribute Data in Geographic Information Systems: A Model for Categorical Coverages, Fall 1992
- Sabine Timpf, M.S. in Surveying Engineering, University of Maine, Conceptual Modeling of Highway Navigation, Fall 1992

Committee Member of Completed Master's Degrees

- Kripa Joshi, M.S. in Spatial Information Science and Engineering, University of Maine, Fall 2007

- Kraig King, M.S. in Spatial Information Science and Engineering, University of Maine, Fall 2007
- Baastian van Loenen, M.S. in Spatial Information Science and Engineering, University of Maine, Spring 2001
- Gillian AvRuskin, M.S. in Spatial Information Science and Engineering, University of Maine, Summer 2000
- Georgios Mountrakis, M.S. in Spatial Information Science and Engineering, University of Maine, Summer 2000
- Dan Look, M.A. in Mathematics, University of Maine, Fall 1998
- Yvette Pluijmers, M.S. in Spatial Information Science and Engineering, University of Maine, Spring 1998
- Vishu Sharma, M.S. in Spatial Information Science and Engineering, University of Maine, Fall 1997
- Jeffrey Paradis, M.S. in Surveying Engineering, University of Maine, Summer 1994
- Barbara Bicking, M.S. in Geographic Information, University of Maine, Summer 1994
- Robert Morse, M.A. in Mathematics, University of Maine, Spring 1994
- S. Rab, M.S. in Surveying Engineering, University of Maine, Spring 1994
- João Paiva, M.S. in Computer Science, National Institute for Spatial Research, San José dos Campos, Brazil, Spring 1994
- Claus Dorenbeck, Dipl.-Ing. in Computer Science, University of Bremen, Germany, Spring 1991
- Ian Greasley, M.S. in Surveying Engineering, University of Maine, Fall 1990
- Wolfgang Kletti, Dipl.-Ing. (FH) in Computer Science, Fachhochschule für Technik, Mannheim, Germany, 1986

Editorial Boards

- Member of the Editorial Board, *Journal of Spatial Information Science*, 2009-ongoing
- Member of the Editorial Board, *GIS.Science—Zeitschrift für Geoinformatik*, 2009-ongoing
- Member of the Editorial Board, *Dissertations in Geographic Information Science*, 2009-ongoing
- Member of the Editorial Board, *Earth Science Informatics*, 2006-ongoing
- Member of the Editorial Board, *International Journal of Applied Earth Observation and Geoinformation*, 1998-ongoing
- Member of the Editorial Board, *Journal of Spatial Cognition and Computation*, 1997-ongoing
- Member of the Editorial Board, *Annals of the Association of American Geographers*, 2000-2009
- Member of the Editorial Board, *Transactions in GIS*, 1996-2011
- Member of the Editorial Board, *International Journal of Applied Software Technology*, 1994-ongoing
- Member of the Article Review Board, *URISA Journal*, 2000-ongoing
- Member of the Panel of Reviews, *The West Indian Journal of Engineering*, 2004-ongoing
- Editor-in-Chief (before 2000 co-editor), *GeoInformatica*, 1996-2002
- Member of the Editorial Board, *International Journal of Geographical Information Science (International Journal of Geographical Information Systems before 1997)*, 1993-2001
- Member of the Editorial Board, *Cartography and Geographic Information Systems*, 1993-1996

Organizer of Conferences and Workshops

- Program Co-Chair, *Conference on Spatial Information Theory (COSIT 2011)*, Belfast, ME, September 2011
- Co-Organizer, *Dagstuhl Seminar on Constraint Databases, Geometric Elimination and Geographic Information Systems*, Dagstuhl Castle, Germany, May 2007
- Program co-chair, *GeoS 05—International Conference on Geospatial Semantics*, Mexico City, Mexico, December 2005
- Program co-chair, *SSTD '05—Ninth International Symposium on Spatial and Temporal Databases*, Angra dos Reis, Brazil, August 2005
- Program co-chair, *GIScience 2004*, Adelphi, MD, October 2004

- Program co-chair, *Semantic Web Technologies for Searching and Retrieving Scientific Data*, Sanibel Island, FL, October 2003
- Program co-chair, *GIScience 2002*, Boulder, CO, September 2002
- Program co-chair, *GIScience 2000*, Savannah, GA, October 2000
- Co-organizer, *Interoperating Geographic Information Systems*, NCGIA Specialist Meeting, Santa Barbara, CA, December 1997
- Co-chair, *International Conference on Interoperating Geographic Information Systems (Interop '97)*, Santa Barbara, CA, December 1997
- Co-organizer, *Formal Models of Common-Sense Geographic Worlds*, NCGIA Specialist Meeting, San Marcos, TX, October 1996
- Co-organizer, *Workshop on the Relationship between GIS and Disaggregate Individual and Behavioral Transportation Modeling*, Santa Barbara, CA, June 1996
- Organizer, *Interoperability Workshop*, Portland, ME, August 1995
- General chair, *Fourth International Symposium on Large Spatial Databases*, Portland, ME, August 1995
- Organizer, *Mini-Workshop on Cross-Cultural Differences in Spatial Relations: English vs. Spanish*, Orono, ME, June 1995
- Program Co-chair, *2nd ACM Workshop on Advances in Geographic Information Systems*, Gaithersburg, MD, December 1994
- Co-organizer, *Workshop on Spatial Relations*, in Marciana Marina, Isola d'Elba, Italy, September 1993
- Co-chair and Coordinator North and South America, *Third International Symposium on Large Spatial Databases*, Singapore, June 1993
- Coordinator, *NCGIA Specialist Meeting on Time in Geographic Space*, Lake Arrowhead, CA, May 1993
- Co-organizer, *Workshop on Methods of Spatio-Temporal Reasoning in GIS*, San Miniato, Italy, September 1992
- Co-chair and Coordinator North and South America, *Second International Symposium on Large Spatial Databases*, Zurich, Switzerland, August 1991
- Co-organizer, CHI '90 Workshop on *Visual Interfaces to Geometry* Seattle, WA, April 1990

Conference Program Committees

- GIScience 2012—Seventh International Conference on Geographic Information Science*, Columbus, OH, September, 2012
- Diagrams 2012 International Conference on the Theory and Applications of Diagrams*, Canterbury, UK, July 2012
- W2GIS 2011—Eleventh International Symposium on Web and Wireless Geographical Information Systems*, Napels, Italy, April 2012
- SSO 2011 : SIGSPATIAL International Workshop on Spatial Semantics and Ontologies*, Chicago, IL, July 2011
- Workshop on Computational Models of Spatial Language Interpretation and Generation (CoSLI-2)*, Boston, MA, July 2011
- GeoS 2011—Fourth International Conference on Geospatial Semantics*, Brest, France, May 2011
- LocWeb 2010—Third International Workshop on Location and the Web*, Tokyo, Japan, November 2010
- GIScience 2010—Sixth International Conference on Geographic Information Science*, Zurich, Switzerland, September, 2010
- Diagrams 2010 International Conference on the Theory and Applications of Diagrams*, Portland, OR, August 2010
- First Workshop on the Semantics of Visual Objects*, Raleigh, NC, April 2010

6th International Conference on Web Information Systems and Technologies (WEBIST 2010), Valencia, Spain, April 2010
17th ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems, Seattle, WA, November 2009
SeCoGIS 2009—3rd International Workshop on Semantic and Conceptual Issues in GIS, Gramado, Brazil, November 2009
3rd Workshop on Behaviour Monitoring and Interpretation, BMI'09: Studying Moving Objects in a Three-Dimensional World, Ghent, Belgium, November 2009
Terra Cognita 2009, Washington, D.C., October 2009
Conference on Spatial Information Theory: COSIT'09, Aber Wrac'h, France, September 2009
Third International Workshop on Privacy-Aware Location-based Mobile Services (PALMS'09), Taipei, Taiwan, May 2009
LocWeb 2009—Second International Workshop on Location and the Web, Boston, MA, April 2009
Benchmarking of Qualitative Spatial and Temporal Reasoning Systems, AAAI Spring Symposium Workshop, Stanford, CA, March 2009
Geoinformatik 2009, Osnabrück, Germany, March 2009
GeoINFO 2008, Rio de Janeiro, Brazil, December 2008
Terra Cognita 2008, Karlsruhe, Germany, October 2008
WWW/Internet 2008, Karlsruhe, Germany, October 2008
UBICOMM 2008—The Second International Conference on Mobile Ubiquitous Computing, Systems, Services and Technologies, Valencia, Spain, September 2008
GIScience 2008—Fifth International Conference on Geographic Information Science, Park City, UT, September 2008
First International Workshop on Trends in Pervasive and Ubiquitous Geotechnology and Geoinformation—TIPUGG 2008, Park City, UT, September 2008
Diagrams 2008—Fifth International Conference on the Theory and Application of Diagrams, Herrsching, Germany, September 2008
AAAI-08—23rd Conference on Artificial Intelligence, Chicago, IL, July 2008
GI Days 2008, Münster, Germany, June 2008
CORE 2008—9th Conference on Computing, Mexico City, Mexico, May 2008
Semantic Scientific Knowledge Integration AAAI-SSS Workshop, Stanford, CA, March 2008
UBICOMM 2007—The First International Conference on Mobile Ubiquitous Computing, Systems, Services, and Technologies, Papeete, French Polynesia (Tahiti), November 2007
1st International Workshop on Semantic and Conceptual Issues in Geographic Information Systems (SeCoGIS'07), Auckland, New Zealand, November 2007
WWW/Internet 2007, Vila Real, Portugal, October 2007
2nd International Workshop on Spatial and Spatial-Temporal Data Mining, Omaha, NE, October 2007
Ninth International Conference on Spatial Information Theory—COSIT 2007, Melbourne, Australia, September 2007
DG/SUM'07—ISSNIP/ISPRS Joint International Workshop on Distributed Geoinformatics and Sensing, Ubiquity, and Mobility, Melbourne, Australia, September 2007
GI Days 2007, Münster, Germany, September 2007
Eighth International Workshop on Multimedia Data Mining (MDM07), Mannheim, Germany, May 2007
Tenth International Symposium on Spatial and Temporal Databases—SSTD '07, Boston, MA, July 2007
International Workshop on Privacy-Aware Location-Based Mobile Services (PALMS), Mannheim, Germany, May 2007
CHI Workshop on Mobile Spatial Interaction, San Jose, CA, April 2007
Data Sharing and Interoperability in Word-Wide Sensor Web, Cambridge, MA, April 2007
Workshop on Spatio-Temporal Data Mining—STDM'07, Istanbul, Turkey, April 2007
6th International Workshop on Web and Wireless Geographical Information Systems, Hong Kong, China, December 2006

Eighth Brazilian Symposium on Geoinformatics—GeoInfo 2006, Campos do Jordão, Brazil, November 2006

Terra Cognita 2006—Directions to the Geospatial Semantic Web, Athens, GA, November 2006

ISWC 2006—Fifth International Semantic Web Conference, Athens, GA, November 2006

3rd International Workshop on Conceptual Modeling for Geographic Information Systems (CoMoGIS2006), Tucson, AZ, November 2006

14th ACM International Symposium on Advances in Geographic Information Systems—ACM-GIS'06, Washington, DC, November 2006

WWW/Internet 2006, Murcia, Spain, October 2006

Spatial Cognition 2006, Bremen, Germany, September 2006

GIScience 2006—Fourth International Conference on Geographic Information Science, Münster, Germany, September 2006

The Seventh International Workshop on Multimedia Data Mining, Philadelphia, PA, August 2006

Qualitative Constraint Calculi—KI 2006 Workshop, Bremen, Germany, June 2006

Diagrams 2006, Stanford, CA, June 2006

Workshop on Mobile Location-Aware Sensor Networks, Nara, Japan, May 2006

The 21st Annual ACM Symposium on Applied Computing, Track on Advances in Spatial and Image-Based Information Systems (ASIIS'06), Dijon, France, April 2006

WEBIST 2006: International Conference on Web Information Systems and Technologies, Setúbal, Portugal, April 2006

SWDB'06: Semantic Web and Databases Workshop, Atlanta, GA, April 2006

5th International Workshop on Web and Wireless Geographical Information Systems, Lausanne, Switzerland, December 2005

Seventh Brazilian Symposium on Geoinformatics—GeoInfo 2005, Campos do Jordão, Brazil, November 2005

13th ACM International Symposium on Advances in Geographic Information Systems—ACM-GIS'05, Bremen, Germany, November 2005

2nd International Workshop on Conceptual Modeling for GIS—CoMoGIS 2005, Klagenfurt, Austria, October 2005

WWW/Internet 2005, Lisbon, Portugal, October 2005

COSIT'05—Conference on Spatial Information Theory, Ellicottville, NY, September 2005

WebS 2005—4th International Workshop on Web Semantics, Copenhagen, Denmark, August 2005

17th International Conference on Scientific and Statistical Database Management—SSDBM 2005, Santa Barbara, CA, June 2005

International Conference on Web Information Systems and Technologies—WEBIST, Miami, FL, May 2005

GIS PLANET 2005, Lisbon, Portugal, May 2005

International Workshop on Conceptual Modeling for GIS—CoMoGIS 2004, Shanghai, China, November 2004

4th International Workshop on Web and Wireless Geographical Information Systems, W²GIS 2004, Goyang, Korea, November 2004

6th Brazilian Symposium on Geoinformatics—GeoInfo 2004, Campos do Jordão, Brazil, November 2004

WWW/Internet 2004, Madrid, Spain, October 2004

Spatial Cognition 2004, Frauenchiemsee Island, Germany, October 2004

WebS 2004: Third International Workshop on Web Semantics, Zaragoza, Spain, September 2004

Second Workshop on Spatio-Temporal Database Management—STDBM '04, Toronto, Canada, August 2004

First Workshop on Databases In Virtual Organizations—DIVO 2004, Paris, France, June 2004

UbiGIS 2004—First International Workshop on Ubiquitous GIS, Gävle, Sweden, June 2004

ISSDQ 2004—International Symposium on Spatial Data Quality, Bruck an der Leitha, Austria, April 2004

Diagrams 2004—Third International Conference on Theory and Application of Diagrams, Cambridge, UK, March 2004

Ninth International Conference on Extending Database Technology—EDBT 2004, Heraklion, Greece, March 2004

Third International Workshop on Web and Wireless Geographical Information Systems W²GIS, Rome, Italy, December 2003

ACM GIS 2003, New Orleans, LA, November 2003

GEOPRO 2003: International Workshop on Semantic Processing of Spatial Data, Mexico City, Mexico, November 2003

Fifth Brazilian Symposium on Geoinformatics, Campos do Jordão, Brazil, October 2003

COSIT 2003: Conference on Spatial Information Theory, Ittingen, Switzerland, September 2003

Semantic Web and Databases, Berlin, Germany, September 2003

Ontologies for Business Information Systems - OntoBIS, Special Session at 6th International Conference on Business Information Systems BIS 2003, Colorado Springs, CO, June 2003

Semantic Web and Artificial Intelligence, Special Track on Semantic Web at FLAIRS 2003, St. Augustin, FL, May 2003

Japan-US Workshop on Annotation and Resource Discovery of Geographic Image Data, Nikko, Japan, March 2003

Second International Workshop on Web and Wireless Geographical Information Systems, Singapore, December 2002

IV Brazilian Symposium on GeoInformatics—GeoInfo 2002, Caxambú, Brazil, December 2002

10th International Symposium on Spatial Data Handling, Ottawa, CA, July 2002

1st International Semantic Web Conference (ISWC-2002), Sardinia, Italy, June 2002

IFIP 2.6 Working Conference on Visual Database Systems-6 (VDB-6), Brisbane, Australia, May 2002

Special Track on Semantic Web at FLAIRS 2002, Pensacola, FL, May 2002

Diagrams 2002—Second International Conference on Theory and Application of Diagrams, Callaway Gardens, GA, April 2002

18th International Conference on Data Engineering (ICDE 2002), San Jose, CA, February 2002

Specialist Meeting on Location-Based Services, Santa Barbara, CA, December 2001

9th International ACM Symposium on Advances in Geographic Information Systems (ACM GIS), Atlanta, GA, November 2001

21st International Conference of the Chilean Computer Science Society, Punta Arenas, Chile, November 2001

SVUG 2000: First Workshop on Spatial Vagueness, Uncertainty and Granularity, Ogunquit, ME, October 2001

Symposium on Visual/Multimedia Approaches to Programming and Software Engineering, Stresa, Italy, September 2001

COSIT 2001: Conference on Spatial Information Theory, Morro Bay, CA, September 2001

MDM/KDD2001 Second International Workshop on Multimedia Data Mining, San Francisco, CA, August 2001

International Semantic Web Workshop, Stanford, CA, July 2001

Seventh International Symposium on Spatial and Temporal Databases (SSTD'01), Los Angeles, CA, July 2001

International Workshop on Mining Spatial and Temporal Data, Kowloon, Hong Kong, April 2001

ACM GIS 2000: 8th ACM Symposium on GIS, Baltimore, MD, November 2000

International Workshop on Temporal, Spatial and Spatio-Temporal Data Mining, Lyon, France, September 2000

ASDM 2000: International Workshop on Advanced Spatial Data Management, Greenwich, UK, September 2000

VL 2000: IEEE Symposium on Visual Languages, Seattle, WA, September 2000

Ontology and Epistemology for Spatial Data Standards, La Londe-les-Maures, France, September 2000

Diagrams 2000, Edinburgh, Scotland, September 2000
Ninth International Symposium on Spatial Data Handling, Beijing, China, July 2000
Workshop on Multimedia Data Mining (MDM/KDD2000), Boston, MA, August 2000
AAAI Workshop on Spatial and Temporal Granularity, Austin, Texas, July 2000
Twelfth International Conference on Scientific and Statistical Database Management, Berlin, Germany, July 2000
5th IFIP 2.6 Working Conference on Visual Database Systems (VDB5), Fukuoka, Japan, May 2000
First International Workshop on Evolution and Change in Data Management (ECDM'99), Versailles, France, November 1999
25th International Conference on Very Large Data Bases '99, Edinburgh, Scotland, September 1999
1999 Workshop on Spatio-Temporal Database Management (STDBM '99), Edinburgh, Scotland, September 1999
User Interfaces to Data Intensive Systems, Edinburgh, Scotland, September 1999
Workshop on Spatio-Temporal Data Models and Languages, Florence, Italy, August 1999
Fourth International Conference on Spatial Information Theory (COSIT '99), Stade, Germany, August 1999
Sixth International Symposium on Large Spatial Databases (SSD '99), Hong Kong, China, July 1999
International Workshop on Integrated Spatial Databases: Digital Images and GIS, Portland, ME, June 1999
Workshop on Discovering Geographic Knowledge in Data-Rich Environments, Redmond, WA, March 1999
Second International Conference on Interoperating Geographic Information Systems, Zurich, Switzerland, March 1999
Workshop on Geographic Information Science and Geospatial Activities at NSF, Arlington, VA, January 1999
International Workshop on New Database Technologies for Collaborative Work Support and Spatio-Temporal Data Management (NewDB'98), Singapore, November 1998
Digital Government Initiative—Geographic Information Systems Workshop, Arlington, VA, July 1998
10th International Conference on Scientific and Statistical Database Management, Capri, Italy, July 1998
Eighth International Symposium on Spatial Data Handling, Vancouver, Canada, July 1998
4th IFIP 2.6 Working Conference on Visual Database Systems (VDB4), L'Aquila, Italy, May 1998
COSIT '97: International Conference on Spatial Information Theory, Laurel Highlands, PA, October 1997
VL '97, IEEE Symposium on Visual Languages, Capri, Italy, September 1997
Fifth International Symposium on Large Spatial Databases, Berlin, June 1997
Joint Workshop on Registration of Metadata, Berkeley, CA, July 1997
Autocarto 13, Seattle, WA, March 1997
Fourth International ACM Workshop on Advances in GIS, Rockville, MD, November 1996
Seventh International Symposium on Spatial Data Handling, Delft, The Netherlands, August 1996
6th Annual East-West Human-Computer Interaction Conference (EWHCI'96), Moscow, Russia, August 1996
Advanced Visual Interface, Gubbio, Italy, May 1996
3rd International ACM Workshop on Advances in Geographic Information Systems, Baltimore, MD, December 1995
Constraint-based Databases, Friedrichshafen, Germany, September 1995
COSIT '95: International Conference on Spatial Information Theory, Semmering, Austria, September 1995
IFIP 2.6 Thirds Working Conference on Visual Database Systems, Lausanne, Switzerland, March 1995
Founding Meeting of the University Consortium for Geographic Information Science (UCGIS), Boulder, CO, December 1994
Sixth International Symposium on Spatial Data Handling, Edinburgh, Scotland, September 1994

International GIS Workshop on Spatial Data Modelling and Query Languages for 2D and 3D Applications, Delft, The Netherlands, September 1994
Cognitive Aspects of Human-Computer Interaction for GIS—NATO Advanced Research Workshop (ARW), Palma de Mallorca, Iles de Balears, Spain, March 1994
Workshop on Advances in Geographic Information Systems, Washington, DC, November 1993
Autocarto 11, Minneapolis, MN, October 1993
European Conference on Spatial Information Theory, Marciana Marina, Isola d’Elba, Italy, September 1993
From Space to Territory—Theories and Methods of Spatio-Temporal Reasoning, Pisa, Italy, September 1992

Standing National and International Science Committees

- Member of the *SSTD Endowment*, 2010-ongoing
- Member of the *Steering Committee of W2GIS Conference Series*, 2006-ongoing
- Member of the *Steering Committee of the Conference Series on Spatial Information Theory (COSIT)*, 2005-ongoing
- Member of the Strategic Orientation Committee, Centre for Research in Geomatics, Université Laval, Canada, 2003-ongoing
- Member of the *College of Reviewers for the Canada Research Chairs Program*, 2000–ongoing
- Chair of the *Steering Committee of the Symposia on Spatial and Temporal Databases*, 2005
- Member of the Jury for four Faculty Hires, Instituto de Engenharia de Estruturas, Território e Construção, Lisbon, Portugal, 2007
- Member of the Scientific Advisory Committee, Instituto de Engenharia de Estruturas, Território e Construção, Lisbon, Portugal, 2004-2007
- Member of the National Research Council’s Committee on *Beyond Mapping: The Challenges of New Technologies in the Geographic Information Sciences*, 2002-2003
- Chair of the *UCGIS Research Awards Committee*, 2004
- Chair of the *Research Projects Committee of the University Consortium for Geographic Information Science*, 1999–2003
- Member of the *Nominating Committee of the University Consortium for Geographic Information Science*, 1998–2001
- Member and Vice-chair of the *Research Management Committee of the University Consortium for Geographic Information Science*, 1998–1999
- Member of the *Operating Procedures Working Group of the University Consortium for Geographic Information Science*, 1998
- Chair of the *Science Panel on Computational Implementations of Geographic Concepts* of NCGIA’s Varenius project to advance geographic information science, 1997-2001
- Co-leader of the NCGIA Research Initiative on *Interoperating Geographic Information Systems*, 1997–1999
- U.S. Expert and U.S. Delegate to *ISO/TC 211 on Geographic Information/Geomatics*, 1997-1998
- Co-Chair of the *UCGIS Working Group on GIS Modeling Language Standards*, 1997-1998
- Advisory Board of the American Institute of Urban and Regional Affairs, 1997
- Co-chair, *ISPRS working group IV/I on Database Design and Spatial Data Access*, 1996-1998
- Member of the *American Association of Geographers’ committee on Standards for Geographic Data*, 1996-1999
- Member of the *SSD Steering Committee (Symposia for Spatial Databases)*, 1995-2001
- Co-leader of the NCGIA Research Initiative on *Formal Models of Common-Sense Geographic Worlds*, 1995-1999
- Member of the *Research Committee of the University Consortium for Geographic Information Science*, 1995

- Delegate to the University Consortium for Geographic Information Science, 1994-2002
- NCGIA Executive Committee, 1993-2006
- NCGIA Scientific Policy Committee, 1993-1996
- Co-leader of the NCGIA Research Initiative on *Spatio-Temporal Reasoning in GIS*, 1992-1996

University Campus Committees

- Marketing Plan's Goal Team for Graduate Education, 2004-2005
- University Research Council, 2002-2004 and 2009-2011
- Committee on Research Faculty, 2003
- Committee to Review the Appointment of the Director of the Advanced Engineered Wood Composite Center, 2002
- Committee to Review the Appointment of the Director of the Laboratory for Surface Science and Technology, 2002
- Commission on Information Technologies, 2001-2003
- Chair of the Search Committees for three faculty positions in the National Center for Geographic Information and Analysis, 2000-2001
- College of Engineering Research Council, 1999-2002
- Graduate School Executive Committee (elected), 2000-2003
- Graduate School Special Committee on "Research Requirements for Master's and Doctoral Students," 2002
- Graduate School Constitution Committee, 1997-2000
- Graduate Board, 1997-2003 and 2006-ongoing
- Search Committee for Chair in Electrical and Computer Engineering, 1999
- Search Committees for Faculty in Computer Science, 1998-1999, 2000-2001, 2001-2002, 2003
- Ad-hoc Committee for a Computer Science Ph.D. program, 1998
- Faculty Senate Committee on Committees (elected), 1997-1998
- Faculty Senate Committee on Research and Public Service, 1995-1998
- Taskforce for Research, 1996
- Faculty Senate (elected), 1995-1998
- Search Committees for Department Chair in Spatial Information Science and Engineering, 1994, 1997, and 2005
- Search Committees for Faculty in Spatial Information Science and Engineering, 1994 and 1995

Book Reviewer

Artech House Inc., CRC Press Inc., John Wiley & Sons, Inc., Kluwer, MIT Press, Morgan Kaufmann Publishers, Inc., Springer, Taylor & Francis

Article Reviewer

ACM Transactions on Database Systems; ACM Transactions on Information Systems; ACM Transactions on Programming Languages; Acta Informatica; Algorithmica; Annals of Mathematics and Artificial Intelligence; Annals of the Association of American Geographers; Cartographica; Cartography and Geographic Information Systems; Computers & Geosciences; Computers and Graphics; Computers, Environment and Urban Systems; Decision Support Systems; Electronics and Telecommunications Research Institute Journal; Fuzzy Sets and Systems; Geographical Analysis; Geographical & Environmental Modelling; Geographical Systems; GeoInformatica; Geomatica; IEEE Computer; IEEE MultiMedia, IEEE Transactions on Computers; IEEE Transactions on Geoscience and Remote Sensing; IEEE Transactions in Knowledge and Data Engineering; ISPRS Journal of Photogrammetry & Remote Sensing; Information Processing Letters; Information Processing & Management; Information Systems; International Journal of Applied Earth Observation and Geoinformation; International Journal of Geographical Information Science (formerly International Journal of Geographical Information Systems);

International Journal of Human-Computer Studies; International Journal of Information Technology; Journal of Computer and System Sciences; Journal of Intelligent Information Systems; Journal of Professional Issues in Engineering Education and Practice; Journal of the American Society of Information Systems; Journal of the Urban and Regional Information Systems Association; Journal of Visual Languages and Computing; Journal of Zhejiang University Science A (Applied Physics and Engineering); Logic Journal of the Interest Group in Pure and Applied Logics; Microprocessors and Microsystems; Papers in Regional Science; Personal and Ubiquitous Computing; Photogrammetric Engineering & Remote Sensing; Professional Geographer; Software-Practice & Experience; Spatial Cognition and Computation; Transactions in GIS; Transportation Research Part C; VLDB Journal; The West Indian Journal of Engineering

Panelist or Site Visit Team Member

GEOIDE Network, Université Laval, Canada; German Department of Education and Research (BMDf); German Research Foundation (DFG); National Science Foundation (Digital Government Program; Information Technology Research Program—Large Proposals; Interactive Systems Program; Major Research Instrumentation); Natural Sciences and Engineering Research Council (Networks of Centres of Excellence Program of Canada)

Proposal Reviewer

Austrian Science Fund; Department of Agriculture; Fonds Québécois de la Recherche sur la Nature et les Technologies; German Department of Education and Research (BMDf); German Israeli-Foundation for Scientific Research and Development; German Research Foundation (DFG); Hong Kong Research Grants Council; Microsoft Research; National Research Council; National Science Foundation (Archaeology, Archaeometry, and Systematic Collections Program; Database Activities in the Biological Sciences Program; Decision, Risk, and Management; Geography and Regional Science Program; Interactive Systems Program; Division of Earth Sciences); Indiana 21st Century Research and Technology Fund; Natural Sciences and Engineering Research Council of Canada; Netherlands Organisation for Scientific Research; North Atlantic Treaty Organization, Scientific and Environmental Affairs Division; Research Foundation of The City University of New York; Science Foundation Ireland; Swedish Council for the Renewal of Undergraduate Education; Swiss National Science Foundation; and the University of Nebraska's Nebraska Research Initiative

External Reviewer of Promotion, Tenure, and Hiring Cases

Aston University, U.K.; Brigham Young University; Delft University of Technology, The Netherlands; Free University Berlin, Germany; George Mason University; Harvard University, The Hong Kong University of Science and Technology; Israel Institute of Technology, Israel; The Ohio State University; The Pennsylvania State University; Pôle Universitaire Leonard de Vinci, France; Purdue University; Simon Fraser University, Canada; Swiss Federal Institute of Technology Zürich, Switzerland; Swiss Federal Institute of Technology Lausanne, Switzerland; Tufts University; United States Military Academy; University of Aalborg, Denmark; University of Bremen, Germany; University of British Columbia, Canada; University at Buffalo; University of California, Santa Barbara; University of Exeter, U.K.; University of Georgia; University of Minnesota-Duluth; University of Münster, Germany; University of Nebraska-Lincoln; University of Pittsburgh; University of Redlands; University of Wisconsin-Milwaukee; The University of Queensland, Australia

External Reviewer of University Programs

Department of Computer Science and Engineering, University of Nebraska-Lincoln; OTB Research Institute for Housing, Urban and Mobility Studies, Delft University of Technology, The Netherlands

February 2012