

Max J. Egenhofer

National Center for Geographic Information and Analysis
Department of Spatial Information Science and Engineering
Department of Computer Science
University of Maine
Orono, ME 04469-5711
Phone: (207) 581-2114
Fax: (207) 581-2206
max@spatial.maine.edu
<http://www.spatial.maine.edu/~max/>

26 Grove Street
Orono, ME 04473
(207) 866-3862

Education

- 1989: Ph.D., Surveying Engineering, University of Maine.
Thesis topic: *Spatial Query Languages*
- 1985: Dipl.-Ing., Surveying Engineering, Stuttgart University, Germany.
Thesis topic: *Pascal Routines for Interactive Management of Sparse Matrices*

Employment

since 1985: University of Maine

- Professor (Associate Professor 1994-1999; Assistant Professor 1992-1994) in Spatial Information Science and Engineering, 1999-ongoing.
- Cooperating Professor in Computer Science, 1991-ongoing.
- Director (through 1996 called Associate Director), National Center for Geographic Information and Analysis, 1993-ongoing.
- 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
- 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

- 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.

Research Grants and Contracts

- 2005: – Toward the Semantic Geospatial Web, Part 4, National Geospatial-Intelligence Agency, PI: M. Egenhofer, \$134,000.
- 2004: – Intelligent Spatial Technologies, Part 4, National Geospatial-Intelligence Agency, PIs: M. Egenhofer and K. Beard, \$500,000.
– Toward the Semantic Geospatial Web, Part 3, National Geospatial-Intelligence Agency, PI: M. Egenhofer, \$165,000.
- 2003: – Toward the Semantic Geospatial Web, Part 2, National Imagery and Mapping Agency, PI: M. Egenhofer, \$50,000.
– Intelligent Spatial Technologies, Part 3, National Imagery and Mapping Agency, PIs: M. Egenhofer and K. Beard, \$1,000,000.
- 2002: – Intelligent Spatial Technologies, Part 2, National Imagery and Mapping Agency, PIs: M. Egenhofer and K. Beard, \$996,000.
– Toward the Semantic Geospatial Web, National Imagery and Mapping Agency, PI: M. Egenhofer, \$175,000.
- 2001: – Intelligent Spatial Technologies, National Imagery and Mapping Agency, PIs: M. Egenhofer and K. Beard, \$1,982,000.
– Ontologies for Aerial Image Integration, Maine Science and Technology Foundation, PI: M. Egenhofer, \$10,000.
- 2000: – University of Maine Research Infrastructure to Enhance Maine's High-Technology Industries, National Science Foundation, PIs: D. Dwyer, H. Almquist, M. Egenhofer, and R. Lad, \$4,118,317.
– Spatio-Temporal Panning and Zooming, National Imagery and Mapping Agency, PIs: K. Hornsby, R. Franzosa, and M. Egenhofer, \$376,400.
– Spatial Sketches on a Palm Pilot, Lockheed-Martin M&DS, PI: M. Egenhofer, \$25,000
– Semantics in Distributed Web Mapping, Lockheed-Martin M&DS, PI: M. Egenhofer, \$20,000.
– Semantic Similarity over Instances, National Imagery and Mapping Agency, PI: M. Egenhofer, \$165,000.
- 1999: – Spatio-Temporal GIS Analysis for Environmental Health, National Institute of Environmental Health Sciences, NIH, PI: M. Egenhofer, \$775,800.
– NSF-CNPq Collaboration on Integrating Geographic Information, National Science Foundation, PI: M. Egenhofer, \$150,000.
– Using Ontologies for Aerial Image Integration, NASA/EPSCoR Scholarship for Frederico Fonseca, Maine Science and Technology Foundation, PI: M. Egenhofer, \$10,000.
– Semantic Similarity Assessment, Lockheed-Martin M&DS, PI: M. Egenhofer, \$30,000.
– Constraint-Based Processing of Multi-Way Spatial Joins, 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, National Science Foundation, PIs: S. Nusser, G. Covert, P. Siegel, and M. Egenhofer, \$40,000.
- 1998: – Predicting Spatial Locations from Spatio-Temporal Change Parameters, GE Corporate Research and Development Center, PIs: M. Egenhofer and K. Beard, \$40,000.
– Assessing Object-Oriented Concepts in Smallworld GIS, Bangor Hydro-Electric Co., PIs: M. Egenhofer and K. Beard, \$18,500.

- 1997: – Advancing Geographic Information Science, National Science Foundation, PIs: M. Egenhofer, H. Onsrud, K. Beard, P. Agouris, and S. Overmyer, \$379,000.
- Center of Excellence in Remote Sensing Applications, 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, 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, National Imagery and Mapping Agency, PI: M. Egenhofer, \$599,900.
 - Application of Spatial Concepts to Genome Data, National Science Foundation, PIs: K. Beard, M. Egenhofer, and C. Bult, \$329,000.
 - GIS Modeling Language Standards Review and Recommendations, Federal Geographic Data Committee, PIs: J. Dobson and M. Egenhofer, \$35,700.
- 1996: – Multi-Modal Spatial Querying, National Science Foundation, PIs: M. Egenhofer and S. Overmyer, \$482,600.
- Heterogeneous Geographic Databases: Similarity Assessments, Advanced Research and Development Committee of the Community Management Staff, Central Intelligence Agency, PI: M. Egenhofer, \$209,700.
 - Image-Retrieval-by-Sketch, Office of Research and Development, PIs: M. Egenhofer and P. Agouris, \$80,000.
- 1995: – Spatial-Query-by-Sketch, Rome Laboratory, PI: M. Egenhofer, \$199,900.
- Heterogeneous Geographic Databases, 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, Space Imaging, PI: M. Egenhofer, \$33,900.
- 1994: – BASIN—A Browsable HyperArchive of Spatial Information on the Net, 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, National Science Foundation, with 26 other investigators at UC Santa Barbara, University of Maine, and SUNY Buffalo, \$4,000,000.
 - Research Experience for Undergraduates, National Science Foundation, PI: M. Egenhofer, \$4,200.
 - Cognitive Aspects of User Interface Design for Geographic Information Systems Advanced Research Projects Agency, PI: M. Egenhofer, \$15,000.
 - Cross-Cultural Differences in Spatial Concepts: Application to Spatial Information System Use, 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, Maine Mathematics and Science Alliance, PIs: M. Egenhofer and K. Hornsby, \$3,600.
- 1993: – RIA: Formalization, Inference, and Query Processing of Spatial Relations in Geographic Space, National Science Foundation, PI: M. Egenhofer, \$97,300.
- National Center for Geographic Information and Analysis, Year 6-8, National Science Foundation, PIs: D. Tyler, M. Egenhofer, H. Onsrud, K. Beard, \$1,380,000.
 - Direct-Manipulation User Interface Design Tools for GISs, Environmental Systems Research Institute, PI: M. Egenhofer, \$15,000.
 - Database Requirements for Vehicle Navigation Systems, Faculty Summer Research Award, University of Maine, PI: M. Egenhofer, \$5,000.
- 1992: – Spatial Reasoning, Intergraph Corporation, PIs: A. Frank and M. Egenhofer, \$157,000.
- National Center for Geographic Information and Analysis, Year 5, National Science Foundation, PIs: D. Tyler, H. Onsrud, K. Beard, and M. Egenhofer, \$308,000.

- 1991: – Integrated Service Delivery System—Year 2, Digital Equipment Corporation, PIs: A. Frank and M. Egenhofer, \$80,000.
 – National Center for Geographic Information and Analysis, Year 4, National Science Foundation, PIs: D. Tyler, H. Onsrud, M. Egenhofer, K. Beard, and A. Frank, \$307,700.
- 1989: – Integrated Service Delivery System, Digital Equipment Corporation, PIs: A. Frank and M. Egenhofer, \$200,000.
 – Object-Oriented Information Technology, Proposal Preparation Grant, Maine Science and Technology Commission, PIs: A. Frank and M. Egenhofer, \$5,000.

Keynote Addresses and Invited Conference Talks

- *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, Kolymbari, 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, Quebec, 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, 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, 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
- 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
- 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 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 Spatial Information Systems*, 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 Freundsuh, 1993-1994.
- Kathleen Hornsby, 1999-2001.
- 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

- 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

- 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

- 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

- 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

- 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, *Diagrams*, 2002-ongoing.
- Member of the Editorial Board, *Annals of the Association of American Geographers*, 2000-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, *Transactions in GIS*, 1996-ongoing.
- 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, *International Conference on Geospatial Semantics*, Mexico City, Mexico, December 2005.
- Program co-chair, *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

- 2005: – *5th International Workshop on Web and Wireless Geographical Information Systems*, Lausanne, Switzerland, December 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.
- 2004: – *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.
- 2003: – *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.
- 2002: – *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.
- 2001: – *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.
- 2000: – *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 Londes-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.
- 1999: – *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.
- 1998: – *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.
- 1997: – *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.
- 1996: – *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.
- 1995: – *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.
- 1994: – *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.
- 1993: – *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.
- 1992: – *From Space to Territory—Theories and Methods of Spatio-Temporal Reasoning*, Pisa, Italy, September 1992.

Standing National and International Science Committees

- Chair of the *UCGIS Research Awards Committee*, 2004.
- Member of the Scientific Advisory Committee, Instituto de Engenharia de Estruturas, Território e Construção, Lisbon, Portugal, 2004-2005.
- Member of the Strategic Orientation Committee, Centre for Research in Geomatics, Université Laval, Canada, 2003-ongoing.
- Member of the National Research Council's Committee on *Beyond Mapping: The Challenges of New Technologies in the Geographic Information Sciences*, 2002-2003.
- Member of the *College of Reviewers for the Canada Research Chairs Program*, 2000-ongoing.
- 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 Varenus 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-ongoing.
- Co-chair, *ISPRS working group IV/1* 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-ongoing.
- 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-ongoing.
- University Research Council, 2002-2004.
- 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), 2000-2001, 2001-2002, and 2002-2003.
- Graduate School Special Committee on "Research Requirements for Master's and Doctoral Students," 2002.
- Graduate School Constitution Committee, 1997-2000.
- Graduate Board, 1997-2003.
- 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 and 1997.
- 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., 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; 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 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 the American Society of Information Systems; Journal of the Urban and Regional Information Systems Association; Journal of Visual Languages and Computing; Microprocessors and Microsystems; Papers in Regional Science; 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

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 Research Foundation (DFG); Hong Kong Research Grants Council; 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 Tenure and Promotion Cases

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

External Reviewer of University Programs

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

March 2005