

CURRICULUM VITAE

LUIS F. LEÓN

PERSONAL

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Nationality: Canadian (by citizenship) – Mexican (by birth)
Birth date and place: April 12, 1960 in Mexico City, Mexico
Family status: Married with 3 children
Languages: English (fluent), Spanish (fluent, native speaker)

EDUCATION

Ph.D. (Eng.) (1994-99) Ph.D.: Environmental Engineering, Civil Engineering Department, University of Waterloo, Waterloo, On., Canada.
Degree Exam: 26/Apr/1999. Thesis: *Integral System for Non-point Source Pollution Modeling in Surface Waters*. Supervisors: Grahame J. Farquhar & Rick Soulis

M.Sc. (Eng.) (1984-87) Master: Hydraulic Engineering, Engineering Graduate Studies Division, National Autonomous University of Mexico (UNAM), Mexico.
Degree Exam: 23/Mar/1990. Thesis: *Contaminant Dispersion in Channels, Numerical Modeling*. Supervisor: Polioptro Martínez.

B.Sc. (Eng.) (1979-83) Civil Engineering: Faculty of Engineering, National Autonomous University of Mexico (UNAM), Mexico.
Degree Exam: 22/Jun/1984. Thesis: *Oscillation Tanks, Experimental Measures and Numerical Solution*. Supervisor: Ariel Friedmann.

AWARDS

1994-1999 CONACyT Scholarship for Ph.D. degree in the University of Waterloo, Canada.

1991-1993 Candidate National Researcher in the Mexican National Researchers System (SNI).

1990 Graduated with Distinction, Avg.-91/100 in Masters Degree examination.

1988 Special Lecture Award "Fernando Espinosa Gutiérrez"

1984 Graduated with Distinction, Avg.-90.8/100 in Bachelors Degree examination.

ORGANIZATIONS

International Association for Great Lakes Research (IAGLR)
International Water Association (IWA)
International Association for Hydraulic Research (IAHR/AIRH)
Engineering National Academy (ANIAC)
Hydraulic Mexican Association (AMH)
Mexican Civil Engineering College (CICM)
Limnology Mexican Association (AML)

POSITIONS

Jul 2001-to date Holder of two shared positions:
 a) Research Associate: Biology Department at the University of Waterloo
 b) Research Scientist PT-II with Environment Canada-National Water Research Institute (NWRI).

Apr 1999-Jun 2001 Post-Doctoral Fellow: Civil Engineering Department at the University of Waterloo and in Computer Science at the University of Guelph.

Oct 1994-Apr 1999 Research Assistant: Department of Civil Engineering, University of Waterloo. Ph.D. Research, Supervisors: Grahame J. Farquhar & Rick Soulis.

Jul 1989-Sep 1994 Research Scientist (IV-A): Mexican Institute for Water Technology (IMTA), Cuernavaca, Mexico and Professor, DEPFI-UNAM Campus Morelos, Mexico.

Oct 1982-Jun 1989 Professor and Head of Hydraulics Laboratory: Hydraulic Engineering Department, Faculty of Engineering, UNAM, Mexico City, Mexico. (*See details in Appendix*).

TEACHING

(*See more details in Appendix A @ http://sciborg.uwaterloo.ca/~lfleonvi/cv_luisleon_app.pdf*)

1999- to date: Lecturer in several workshops and tutorials for MOE personnel in watershed and non-point source pollution modeling.

1995-1997 Teaching Assistant, University of Waterloo, Civil Engineering Department, Undergrad Civil Engineering (3 terms), Course: Wastewater Treatment.

1990-1994 Professor, DEPFI (Civil Engineering Department-Postgraduate Division), Engineering Faculty, UNAM (National Autonomous University of Mexico). Courses: Hydraulics (91-2, 92-2, 93-2), Numerical Methods in Hydraulic Engineering (92-1, 93-1, 94-1)

1982-1989 Professor, Civil Engineering Department, UNAM. Courses: Hydraulics-General concepts, hydrostatic and flow in pipes (84-2, 85-1, 85-2, 86-2, 87-1, 89-1), Hydraulics-Open surface hydraulics (85-2, 86-1, 87-2, 88-1, 88-2), Hydrology and Special Themes in Hydraulics – Numerical Methods (86-2, 87-1).

COMPUTER SKILLS

- Geographic Information Systems: ArcView GIS, GRASS, MapWindow
- Decision Support Systems: RAISON, ROS
- Watershed Modeling: AGNPS, SWAT, WatFlood
- Lakes and Water Quality: ELCOM-CAEDYM (3D), POM, DYRESM
- Groundwater Modeling: Visual ModFlow, SWIFT
- Visualization Software: MatLab (scripts), SURFER, EnSim
- Programming Languages: FORTRAN, Visual Basic, Avenue Scripts (ArcView)
- Software Packages: MS Office (Word, Excel, PowerPoint, etc.), Adobe
- Database Management: DB, Access, SQL (code)

RESEARCH

(See more details in Appendix B @ http://sciborg.uwaterloo.ca/~lfleonvi/cv_luisleon_app.pdf)

- Simulation of Nearshore Processes in the Great Lakes (Lake Erie & Lake Ontario – 3D High Resolution Modelling). The main objective of this research project is to set up a 3D hydrodynamic model coupled to a water quality model that would simulate the input conditions for modeling *Cladophora* growth, detachment and transport in the coastal zones of Lake Erie and Lake Ontario. The *Cladophora* Growth Model developed at the University of Waterloo will be coupled to ELCOM-CAEDYM models from the Center for Water Research (University of Western Australia).
- Development of WaterBase as a decision support system for water management. Collaboration work with the Software Technology Institute from the United Nations University based in Macao. The project objective (2005-2007) is to develop a decision support system for water management for use in developing countries. This system should be able to initialize with GIS data available on the web. It will be free of cost and open source. Current developed plug-ins: MWSWAT & MWAGNPS.
- Three Dimensional Hydrodynamic and Ecological Models for Water Quality Problems In Lake Erie. Major collaborative effort with NOAA & NWRI supported by a SRO and NSERC grants starting in 2005 to follow the detailed modelling approach in lake Erie and conducting fundamental research on internal waves and their implications for hydrodynamic modelling. The modelling approach uses the 3D hydrodynamic model ELCOM (Estuary and Lake Computer Model) and the biogeochemical coupled model CAEDYM (Computational Aquatic Ecosystem Dynamics Model), developed and supported at the Centre for Water Research, University of Western Australia.
- Modeling of Invasive Species and Water Quality Impact in Lake Erie: Working in a team supported by an NSERC grant from 2001-2004. Research Associate, Biology Department, University of Waterloo. The primary focus of research is 3D physical hydrodynamic modeling to evaluate the impact that zebra mussels have had on water quality in Lake Erie. Collaboration with the National Water Research Institute (NWRI from Environment Canada) and the Center for Water Research from the University of Western Australia.
- Coupling Lake Model and Regional Climate Model: Working in a team supported by a CFCAS grant, reviewing and implementing 3-D lake hydrodynamic models (COHERENS, ELCOM, POM) for coupling heat fluxes with regional climate model including lake circulation and lake thermal stratification, particularly for Northern Lakes in Canada (i.e. Great Slave Lake). From 2002-2004 the first phase of this project was done in collaboration with the University of Guelph and scientists from NWRI.

- Non-point source modeling for watershed management and planning: Integration of AGNPS models as a decision support system, implemented, tested and used by many Conservation Authorities such as Toronto Region and Conservation Authority, Halton, Hamilton, Niagara, South Nations, Grand River Conservation Authority and the Ontario Ministry of Environment. Technology transfer achieved via several workshops and training sessions from 1999 to date.
- Coupling a hydrological model (WatFlood) with a watershed erosion component and a nutrient model (based on the CREAMS algorithms). The research conducted for my PhD degree dealt with watershed modeling and non-point source pollution. Work in this area currently supported by the Universities of Waterloo, University of Guelph and Environment Canada's NWRI.
- Reservoir Management System: Implementing non-point source component in Lake Seymour decision support system (DSS) as well as for the Lake Coquitlam DSS, for GVRD in B.C. The emphasis of the integration was on forest fires and landslide scenarios and effects on lake sediment and nutrient transport using integrated modeling and decision support system. Developed as a research associate in computer science at the University of Guelph from 2000-2001.
- Lake Malawi Modeling. Integrated modelling connecting non-point source, hydrodynamics and water quality. Project supported by World Bank, UNU, 1999 and 2001. A watershed model non-point source pollution model and a layered lake box model were included in a DSS for Lake Malawi to improve the decision making capabilities for the management of water quality issues on the lake.

SELECTED PUBLICATIONS

(See all publications in Appendix C @ http://sciborg.uwaterloo.ca/~lfleon/cv_luisleon_app.pdf)

Refereed Papers in Journals & Book Chapters

- Leon, L.F. and George, C. (2008) WaterBase: SWAT in an open source GIS, *The Open Hydrology Journal*, Bentham Science Publishers Ltd., Vol. 2, pp.1-6.
- Schertzer, W.M., Rouse, W.R., Blanken, P.D., Walker, A.E., Lam, D.C.L. and Leon, L. (2008), Chapter 11, *Interannual Variability of the Thermal Components and Bulk Heat Exchange of Great Slave Lake*, In. M.K. Woo (ed.) Cold Region Atmospheric and Hydrologic Studies: The Mackenzie GEWEX Experience, Vol. 2: Hydrologic Processes, Springer, NY, 507 p.
- North, R.L., R.E.H. Smith, R.E Hecky, D.C. Depew, L.F. León, M.N. Charlton, S.J. Guildford. (2008 - In press), Changes in the spatial distribution of seston and nutrient concentrations in the eastern basin of Lake Erie. *Jr. Limnol. Oceanogr.* (2008).
- León, L.F., Lam, D.C.L., Schertzer, W.M., Swayne, D.A., Imberger, J. (2007) Towards coupling a 3D hydrodynamic lake model with the Canadian Regional Climate Model: Simulation on Great Slave Lake, *J. Environmental Modelling & Software*, Vol 22, pp 787-796.
- Schertzer, W.M., Rouse, W.R., Blanken, P.D., Walker, A.E., Lam, D.C., León, L.F., (2006) *Interannual Variability of the Thermal Components and Bulk Heat Exchange of Great Slave Lake*, In.(ed.) P. Di Cenzo, Mackenzie GEWEX Study (MAGS), Ottawa, ON, Canada, pp.603-633.
- León, L.F., Imberger, J., Smith, R., Hecky, R., Lam, D.C., Schertzer, W. (2005), Modeling as a tool for nutrient management in Lake Erie: a hydrodynamics study, *J. Great Lakes Res.* 31(Suppl. 2), 309–318.
- León, L.F., Lam, D.C., Schertzer, W. and Swayne, D. (2005) Lake and Climate Models Linkage: A 3D Hydrodynamic Contribution, *J. Advances in Geosciences*, Vol. 4, pp. 57–62.
- Booty, W., Lam, D.C., Bowen, G., Resler, O., and Leon, L.F., (2005) Modelling Changes in Stream Water Quality Due to Climate Change in a Southern Ontario Watershed, *J. Canadian Water Resources*, Vol. 30(3), pp. 2-15.

- Lam, D.C., León, L.F., Hamilton, S., Crookshank, N., Bonin, D., Swayne, D. (2004), Multi-model integration in a decision support system: a technical user interface approach for watershed and lake management scenarios, *J. Environmental Modeling & Software*, Elsevier, Vol 19, pp. 317-324.
- León, L.F., Booty, W.G., Bowen, G.S. and Lam, D.C. (2004), Validation of an agricultural non-point source model in a Watershed in southern Ontario, *J. Agricultural Water Management*, Elsevier AGWAT, Vol 65, pp. 59-75.
- León, L.F., Lam, D.C., McCrimmon, C. and Swayne, D. (2003), Watershed Management Modelling in Malawi: Application and Technology Transfer, *J. Environmental Modeling & Software*, Elsevier, Vol 18, pp. 531-539.
- León, L.F., Soulis, E.D., Kouwen, N., Farquhar G.J. (2002) Modeling Diffuse Pollution with a Distributed Approach, *Jr. Water, Science and Technology*, IWA Publishing, Vol 45(9), pp. 149-156.
- León, L.F., Soulis, E., Kouwen, N. and Farquhar, G. (2001), Nonpoint Source Pollution: A Distributed Water Quality Modeling Approach, *Jr. Water Research*, Vol. 35, No.4, pp. 997-1007.
- Lam, D.C., León, L. Hecky, R., Bootsma, H. and McCrimmon, C. (2001). Modelling approach for Lake Malawi/Nyasa/Niassa: integrating climatological, hydrological and limnological data, *IDEAL*, Vol. 2, Advances in Global Research Series, Kluwer Publishers, London, U.K.
- León, L.F., Lam, D.C., (2001), Sediment Simulation Model, *Chapter 4 in Seymour Reservoir Modelling Study*, prepared for GVRD, (NWRI-CHC), June 2001, pp. IV.1-IV.16.
- Lam, D.C., McCrimmon, C., León, L.F., Fong, P. (2001), Water Quality Model, *Chapter 7 in Seymour Reservoir Modelling Study*, prepared for GVRD, NWRI-CHC, June 2001, pp. VII.1-VII.20.
- León, L.F., Lam, D.C., Swayne, D.A., Farquhar, G.J., Soulis, E.D. (2000), Integration of a Nonpoint Source Pollution Model with a Decision Support System, *Jr. Environmental Modeling & Software*, Vol 15, Elsevier, pp. 249-255.
- León, L.F. and Lam, D.C. (2000), The AGNPS Watershed Model, *Chapter 6 Preparation of a Preliminary Physical Processes and Water Quality Model for Lake Malawi/Nyasa*, Final Report, UNU/INWEH, WL Delft Hydraulics, UW, March 2000, pp. 6.1-6.20.
- Lam, D.C., León, L.F., McCrimmon, C., Hecky, B., Bootsma, H., (2000), An 11-Box Water Quality Model for Lake Malawi, *Chapter 8 in Preliminary Physical Processes and Water Quality Model for Lake Malawi/Nyasa*, UNU/INWEH, WL Delft Hydraulics, UW, March 2000, pp. 8.1-8.16.

Refereed Papers in Conferences

- George, C., León, L.F., (2009) WaterBase: Open Source Software for Integrated Water Resources Management, *International SWAT Conference in Southeast Asia*, (SWAT-SEA 2009), Jan 2009, Chiang Mai, Thailand.
- George, C., León, L.F., Sharma, V., (2007) WaterBase: Open Source Toolkit for Environmental Modeling using SWAT in MapWindow, *International Symposium for Environmental Software Systems*, ISESS 2007, May 2007, Prague, Czech Republic.
- León, L.F., Smith, R.E., Romero, J.R., Hecky, R.E., (2006) Lake Erie Hypoxia Simulations with ELCOM-CAEDYM, *3rd Biennial meeting of the International Environmental Modelling and Software Society*, IEMSS 2006, July 2006, Burlington, Vermont, US.
- León, L.F., Lam, D.C., Schertzer, W. and Swayne, D., (2006) A 3D Hydrodynamic Lake Model: Simulation on Great Slave Lake, *3rd Biennial meeting of the International Environmental Modelling and Software Society*, IEMSS 2006, July 2006, Burlington, Vermont, US.

- George, C., León, L.F., Sharma, V., Mayfield, C.I. (2006) The WaterBase Project, *3rd Biennial meeting of the International Environmental Modelling and Software Society*, IEMSs 2006, July 2006, Burlington, Vermont, US.
- León, L.F., Lam, D.C., Schertzer, W. and Swayne, D., (2004) Lake and Climate Models Linkage: A 3DHydrodynamic Contribution, *2nd Biennial International Environmental Modelling and Software Society meeting*, IEMSs 2004, June 2004, University of Osnabrück, Germany.
- León, L.F., Bowen, G.S. and Booty, W.G., (2004) Verification of the AGNPS Trace Source Contribution Algorithm for Use in Southern Ontario Watersheds, *2nd Biennial International Environmental Modelling and Software Society meeting*, IEMSs 2004, June 2004, University of Osnabrück, Germany.
- Lam, D.C., Leon, L.F., Hamilton, S., Crookshank, N., Bonin, D. and Swayne, D., (2002) Multi-model Integration in Decision Support System: A Technical User Interface Approach for Watershed and Lake Management Scenarios, *1st Biennial Meeting of the International Environmental Modelling and Software Society (IEMSs2002-ISESS2002)*, Lugano, Switzerland, June 2002, Vol. 3, pp. 306-311.
- León, L.F., Soulis, E.D., Kouwen, N., Farquhar G.J., (2001). Modeling Diffuse Pollution with a Distributed Approach. *5th International Conference on Diffuse/Non-point Source Pollution and Watershed Management*, Int. Wat. Assoc. (IWA), Marquette University, Milwaukee, US, Jun 2001.
- León, L.F., Lam, D.C., Bowen, G. and Booty, W., (2001) A Technical User Interface for Diffuse Pollution Modelling, *54th Annual CWRA Conference*, Can. Water Res. Assoc., Guelph, On., Canada, June 2001.
- León, L., Lam, D.C., McCrimmon, C., Swayne, D., (2001) Model Integration for Watershed Management: A case study for Lake Malawi/Nyasa/Niassa, *4th International Symposium on Environmental Software Systems, ISESS 2001*, Banff, Alberta, Canada, IFIP Publishers, May 2001, pp.68-80.
- Booty, W., Bowen, G., León, L., Lam, D.C., (2001) Decision Support Technology Transfer for Non-point Source Water Quality Modelling, *36th Canadian Symposium on Water Pollution Research*, CCIW, Burlington, On., Canada, February 2001.
- León, L.F., Kouwen, N., Soulis, E., Farquhar, G., (1999) WATFLOOD/Water Quality Model Integration in a Decision Support System, *3rd International Symposium on Environmental Software Systems, ISESS 1999*, Dunedin, New Zealand, Kluwer Academic Publishers, August 1999, pp. 187-194.
- Ollos, P., Huck, P. and León L.F. (1999) Modeling of Biofilm Accumulation in Drinking Water Distribution Systems, *IAWQ Conference on Biofilm Systems*, New York, October 1999.
- Bowen, G., Lam, D., Booty, W. and León, L.F., (1997) AGNPS Application on a Catchment Draining the Oak Ridge Moraine, *Fall Conference on Watershed Research*, MNR/GSC ORM, Environment Canada, Toronto, On., Canada, October 1997.
- León, L., Lam, D., Swayne, D., Farquhar, G., Soulis, R., (1997) Integration of a Nonpoint Source Pollution Model with a Decision Support System, *Environmental Software Systems, Vol.2, Proc. 2nd Int. Symp. Environmental Software Systems, ISESS'97*, Chapman & Hall, BC, Canada, pp. 102-109.
- León, L.F., Lam, D.C., Farquhar, G.J., (1997) Agricultural Non-Point Source Pollution Modeling, *Proc. of the 26th Water Environmental Association of Ontario (WEAO) Symposium*, London, Ontario, Canada.
- Snodgrass, W., Kilgour, B., Leon, L., Eyles, N, Parish, J, Barton, D. (1997) Applying Ecological Criteria for Stream Biota and Impact Flow Model for Evaluating Urban Water Resources in Southern Ontario, *Proc. in Engineering Foundation Conference on Stormwater Management*, Malmo, Sweden.

SEMINARS/KEYNOTE ADRESSES

November, 2008 : Jiutepec, Morelos, Mexico

- Invitation to present a Keynote Lecture at the "**1st International Seminar on Potamology**", Mexican Institute of Water Technology (IMTA), Title: *Integral Modelling of the Watershed-River-Lake System*, Leon, L.F.

Keynote Lecture at the 1st. International Seminar on Potamology. Jiutepec, Morelos, Mexico, 19-21 November, 2008. Luis F. Leon: AEMRD (905) 336-4620; Luis.Leon@ec.gc.ca

September, 2008 : Zelenogorsk-St. Petersburg, Russia

- Invitation to present a Keynote Lecture at the "**Parameterization of Lakes in Numerical Weather Prediction and Climate Modelling**", International Workshop on Lake and Climate Modelling, Leon, L.F., Lam, D., Yerubandi, R., Schertzer, W. (Online Presentation)

April, 2008 : Center for Water Research, University of Western Australia, Perth

- Title: "**Three dimensional modelling approaches to water quality and fisheries issues in the Laurentian Great Lakes**", Leon, L.F., Smith, R.E.

INTERNATIONAL TECHNOLOGICAL TRANSFER AND COLLABORATION

(See date details in Appendix D @ http://sciborg.uwaterloo.ca/~lfleonvi/cv_luisleon_app.pdf)

- Modeling training workshop on ELCOM-CAEDYM, University of Western Australia, Perth, Australia
 - Mar-Apr, 2008: Validation for coupled CGM (Cladophora Growth Model) with ELCOM-CAEDYM in East Basin Lake Erie. Setup nearshore run of coupled programs in the vicinity of Pickering for the OPG project with data from 2007 field campaign. Run floaters (trackers) to compare with tag and release data from Kinetrics.
 - Nov-Dec, 2006: Collaboration work with CWR for lake wide simulations and setup of the higher resolution simulations with coastal type open boundary conditions. Application in the east basin of Lake Erie and in the Pickering nearshore area for OPG.
 - Nov, 2005: Technology transfer and training required to use CAEDYM, the water quality module coupled to ELCOM. Initial setup and application with Lake Erie data in the context of the NSERC-SRO Hypoxia on Lake Erie project.
 - Mar, 2002: Technology transfer and training required to use ELCOM, a 3D hydrodynamic model. Initial setup and application with Lake Erie data in the context of the NSERC project.
- Lake Erie Research Planning Workshop, Ann Harbor, Michigan, USA (4-6 March, 2004) Lake Erie Research Planning workshop hosted by NOAA-GLERL with an emphasis on developing collaborations and the focusing of GLERL scientists. The three foci for the workshop: HAB, anoxia, and coupling fish, water quality and physics.
- Training workshop for three African countries (Malawi, Mozambique, Tzania) supported by World Bank and UNU (United Nations University):
 - Malawi, Southeast Africa (5-16 Mar, 2001) Training Course on the Application of the AGNPS Model and RAISON System to Watershed Management Planning for Lake Malawi.
 - Malawi, Southeast Africa (16-29 Mar, 2000) Technology transfer and training course on watershed and lake box models for Lake Malawi. Participants from Tanzania, Mozambique and Malawi.
- Technology Transfer to National Water Commission (CNA), Mexico City, on water monitoring and watershed management supported by the WMO (World Meteorological Organization):

- Mexico City, Mexico (18 Nov-5 Dec, 2003) Evaluation of Geographic Information Systems and Integration Projects and Technology Transfer of the Non-Point Source Pollution Interface/Model.
 - Mexico City, Mexico (26 Nov-6 Dec, 2002) Evaluation of Geographic Information Systems and Integration Projects.
 - Mexico City, Mexico (21-27 Oct, 2001) Evaluation of Geographic Information Systems and Integration Projects.
 - Mexico City, Mexico (19 Nov-2 Dec, 2000) Information Systems with links between GIS and RAISON.
- Montevideo, Uruguay and Buenos Aires, Argentina (10-15 May, 1993) Conference at the regional unit of the Hydrology Group of the UN in Montevideo. Training in the use and application of RAISON to personnel from CETUA of the INCyTH in Buenos Aires, sponsored by the NWRI of Canada and the WMO (World Meteorological Organization).

PARTICIPATION IN CONFERENCES

- 2008 51st Annual Conference on Great Lakes Research, (IAGLR 2008), May 2008, Trent University, Peterborough, Ontario, Canada
- CMOS 2008 Congress May 2008 - Water, Weather, Climate: Science Informing Decisions, Canadian Meteorological and Oceanographical Society, Kelowna, British Columbia, Canada.
- The 5th Biennial Conference of the Lake Erie Millennium Network (LEMN) April 29 - May 1, 2008, University of Windsor, Ontario, Canada
- 2007 International Symposium for Environmental Software Systems, (ISESS 2007), May 2007, Prague, Czech Republic.
- 50th Annual Conference on Great Lakes Research, (IAGLR 2007), June 2007, Penn State University Park, Pennsylvania, US.
- 2006 3rd Biennial meeting of the International Environmental Modelling and Software Society (IEMSS 2006), July 2006, Burlington, Vermont, US.
- 49th Annual Conference on Great Lakes Research (IAGLR 2006), University of Windsor, Windsor, Ontario, Canada
- 2005 48th Annual Conference on Great Lakes Research (IAGLR 2005), University of Michigan, Ann Arbor, Mich., USA
- 2004 2nd Biennial Meeting: International Environmental Modeling and Software Society (IEMSS 2004), University of Osnabrück, Germany.
- 47th Annual Conference on Great Lakes Research (IAGLR 2004), University of Waterloo, Waterloo, Ontario, Canada.
- 2003 46th Annual Conference: Great Lakes Research (IAGLR 2003), DePaul University, Chicago, IL, USA.
- 2002 1st Biennial Meeting: International Environmental Modeling and Software Society (IEMSS 2002-ISESS 2002), Lugano, Switzerland.
- 2001 5th International Conference on Diffuse/Non-point Source Pollution and Watershed Management, Int. Wat. Assoc. (IWA), Marquette University, Milwaukee, US
- 4th International Symposium Environmental Software Systems, ISESS2001, Banff, Alberta, Canada

- 54th Annual Conference: Watersheds of Change, Can. Water Res. Assoc., Guelph, On., Canada
1999 3rd International Symposium: Environmental Software Systems, ISESS'99, Dunedin, New Zealand.
1998 ISESS'98 Workshop-Design Principles: Environmental Information Systems, Solk, Styria, Austria.
1997 40th Annual Conference on Great Lakes Research, IAGLR97, Buffalo State College, Buffalo, NY.
2nd International Symposium: Environmental Software Systems, ISESS'97, Whisler, BC, Canada.
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- 1993 IX Congreso Nacional Ingeniería Sanitaria y Ambiental, Cd. de México, México.
2nd International Conference: Environmental Pollution ICEP2, Sitges, Barcelona, España.
1992 XII Congreso Nacional de Hidráulica, Oct 1992, Puerto Vallarta, Jal., México.
VIII Congreso Nacional de Ingeniería Sanitaria y Ambiental, Cocoyoc, Mor., México.
1991 3^a Semana Internacional de Limnología: Morelia, Mich., México.
II Congreso Nacional de Informática, Puebla, Pue., México.
2^a Semana Internacional de Limnología, Guadalajara, Jal., México.
1990 XI Congreso Nacional de Hidráulica, Zacatecas, Zac., México.
1^a Semana Internacional de Limnología, Guadalajara, Jal., México.
Simposio Informática en la Ingeniería Civil, X Foro de Ingeniería Civil, Puebla, Pue., México.
1988 X Congreso Nacional de Hidráulica, Morelia, Mich., México.
1986 IX Congreso Nacional de Hidráulica, Querétaro, Qro., México.
1984 VIII Congreso Nacional de Hidráulica, Toluca, E. de Mex., México.