

PIERRE L'ECUYER

Curriculum Vitæ, September 26, 2011

PERSONAL DATA

Date of birth : November 13, 1950

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EDUCATION

1981–83 Ph.D. in computer science, with operations research orientation (University of Montreal).

Thesis title: “Processus de décision Markoviens à étapes discrètes: application à des problèmes de remplacement d'équipement.” Advisor: Alain Haurie. April 1983.

1978–80 M.Sc. in operations research (University of Montreal). December 1980.

1969–72 Bachelor degree in mathematics (University of Montreal). May 1972.

PRIZES AND DISTINCTIONS

- Canada Research Chair on “Stochastic Simulation and Optimization,” renewed for the period 2011–2017.
- INFORMS Simulation Society Outstanding Research Publication Award (an international award for best publication in simulation) in 2009.
- Author of one of the “10 Landmark Papers that impacted the theory, education, and practice of simulation,” selected among the nearly 10,000 papers of the first 40 years of the Winter Simulation Conference, 2007.
- Fellow of the Michel Métivier Foundation, IRISA, France, 2007.
- Elected Fellow of the *Institute for Operations Research and the Management Sciences* (INFORMS) in 2006.

- Canada Research Chair on “Stochastic Simulation and Optimization,” for the period 2004–2010.
- Urgel-Archambault Prize, from the “Association francophone pour le savoir” (ACFAS), given for an “exceptional scientific contribution by a French Canadian to the areas of physics, mathematics, and engineering,” in 2002.
- Killam Research Fellowship, from the Canada Council for the Arts, 2001–2003.
- Jacob Wolfowitz Prize for Theoretical Advances in the Mathematical and Management Sciences, in 2000.
- INFORMS College on Simulation Outstanding Research Publication Award (an international award for best publication in simulation) in 1999.
- E.W.R. Steacie Memorial Fellowship, from NSERC (Natural Sciences and Engineering Research Council), 1995–1997.
- Toshiba Chair at Waseda University, Tokyo, 1992.
- Selected for inclusion in *Who’s Who in Canada* each year since 1996.

PROFESSIONAL EXPERIENCE

- 1990–... Professor in the “Département d’informatique et de recherche opérationnelle” (IRO) at the University of Montreal. Full professor (“titulaire”) from June 1, 1992. Teaching: stochastic models, simulation, operations research.
- 1986–... Member of GERAD (Groupe d’études et de recherche en analyse des décisions), Montreal.
- 2006–... Member of CIRRELT (Centre Interuniversitaire de Recherche sur les Réseaux d’Entreprise, la Logistique et le Transport), Montreal.
- 2006–2007 (July–Oct. 2006 and Feb.–July 2007): Visiting researcher, IRISA–INRIA, Rennes, France.
- 1998 (Jan. 1 – July 20): Visiting professor, Department of Industrial Engineering, North Carolina State University, Raleigh, U.S.A.
- 1997 (Sept. 1 – Dec. 31): Guest professor, Institut für Mathematik, University of Salzburg, Austria.
- 1992 (Sept. 1 – Dec. 31): Visiting professor, under the Toshiba Chair, in the Graduate School of Science and Engineering at Waseda University, Tokyo, Japan.
- 1982–90 Professor in the Computer Science Department at Laval University, Ste-Foy, Quebec. Tenured from June 1, 1987. Teaching: Analysis of algorithms, computer simulation, statistics, mathematical programming and operations research. Assistant chairman and research coordinator from 1984 to 1988.
- 1988–89 Visiting professor at Stanford University, in the Operations Research department (5 months). Visitor at INRIA (Institut national de recherche en informatique et automatique), Rocquencourt (near Paris), France (3 months). Visiting professor at ENSM (École nationale supérieure de mécanique), Nantes, France (2 months).
- 1986 Graduate-level teaching at the “École Mohammedia d’ingénieurs” in Rabat, Morocco.

- 1980–82 Part-time research assistant with GERAD, at the “École des Hautes Études Commerciales” in Montreal.
- 1974–78 Teacher of mathematics at the CEGEP of Sept-Iles (Quebec). Coordinator of the department of sciences (1977–78). Member of the Quebec provincial coordination committee for the teaching of mathematics at the college level (1974–77).

GENERAL AREAS OF EXPERTISE

Operations research; optimization; statistics; queueing systems; dynamic programming; stochastic modeling and computer simulation; random number generation; design and analysis of algorithms.

CURRENT RESEARCH INTERESTS

Random number generators (design, theoretical analysis, implementation, and testing); Monte Carlo and quasi-Monte Carlo methods; discrete-event simulation; efficiency improvement in simulation; stochastic optimization of discrete-event systems through Monte Carlo methods; applications to management problems (decision making, performance evaluation and optimization) in various areas, including finance, communication systems, revenue management, and telephone call centers.

RESEARCH GRANTS

2011–17	Canada Research Chair “Stochastic simulation and optimization”.	200,000\$/year
2011	Infrastructure Grant from the Canadian Fund for Innovation and the Quebec Government, linked with the Canada Research Chair, “Computing facilities for the Canada Chair”.	152,908\$
2011–11	Engage Grants Program (NSERC) “Prévision de la demande et optimisation robuste de problèmes d’horaires stochastiques dans le commerce au détail”.	25,000\$
2008–13	NSERC-Canada individual discovery grant “Simulation of stochastic systems”.	71,000\$/year
2008–11	NATEQ-Québec, team grant, P. L’Ecuyer (resp.), P. Marcotte, F. Bastin, and G. Savard, “Modélisation stochastique et optimisation pour la tarification des passagers en transport aérien et ferroviaire”.	52,920\$/year
2008–10	Équipe associée INRIA, B. Tuffin (resp.) and P. L’Ecuyer, “Monte Carlo and Quasi-Monte Carlo for rare event simulation”.	22,000 €/year
2006	FQRNT-Québec, collaboration with INRIA, Rennes.	3,272\$
2005–08	NSERC Cooperative Research and Development Grant, P. L’Ecuyer (resp.) and M. Gendreau, “Simulation and Optimization for Call Centers Management”.	75,000\$/year

2005–08	Laboratoires Universitaires Bell, P. L’Ecuyer and M. Gendreau. “Simulation et optimisation pour la gestion des centres d’appels”,	75,000\$/year
2005–08	NATEQ-Québec, team grant, A. Girard, P. L’Ecuyer, and B. Sansò (resp.), “Performance, Design et Fiabilité des Réseaux de Communications avec Différentiation de Services”.	70,550\$/year
2005–07	MITACS, P. Marcotte, G. Savard, P. L’Ecuyer, and C. K. Anderson, “Optimal Pricing via Mathematical and Bilevel Programming”,	117,000\$/year
2004	Infrastructure Grant from the Canadian Fund for Innovation, linked with the Canada Research Chair, “Computing facilities: cluster and workstations”.	242,757\$
2004–10	Canada Research Chair “Stochastic simulation and optimization”.	200,000\$/year
2003–08	NSERC-Canada individual discovery grant “Simulation of stochastic systems”.	71,000\$/year
2002–05	NATEQ-Québec team grant. Team: P. L’Ecuyer (resp.) and F. Vázquez-Abad. “Simulation des systèmes stochastiques”.	56,000\$/year
2002	NATEQ-Québec equipment grant. P. L’Ecuyer (resp.) and F. Vázquez-Abad.	12,000\$
2002	NSERC Cooperative Research and Development Grant, P. L’Ecuyer (resp.) and P. Hansen, “Modeling, simulation, and optimization of telephone call centers”.	30,000\$
2003–2005	same project (continuation)	95,000\$/year
2002	NSERC University/Industry, “Software tools for testing families of random number generators”.	30,000\$
2001	Alcatel Canada Inc., “Software for testing random number generators” (research contract).	30,000\$
2001–03	Killam Research Fellowship (part of salary + benefits): “Practical Tools for Random Number Generation and Quasi-Monte Carlo Simulation”.	72,107\$/year
2001–04	Laboratoires Universitaires Bell: “Gestion optimale d’un centre d’appels dans un environnement blend”, P. Hansen and P. L’Ecuyer.	80,000\$/year
1999–03	NSERC-Canada individual operating grant. “Simulation and Random Number Generators”.	57,750\$/year
1999–02	FCAR-Québec team grant. Team: P. L’Ecuyer (resp.) and F. Vázquez-Abad. “Simulation des systèmes stochastiques”.	31,500\$/year
1999	FCAR-Team (equipment).	10,000\$

1999	NSERC equipment grant. Team: P. L'Ecuyer (resp.), J. Ferland, P. Marcotte, B. Gendron, S. Nguyen, J.-Y. Potvin, F. Vázquez-Abad.	35,474\$
1995–99	NSERC-Canada individual operating grant. “Simulation et optimisation des systèmes stochastiques”.	50,000\$/year
1995–97	NSERC-Canada individual operating grant: supplement of individual grant for Steacie award.	59,500\$/year
1995–98	FCAR-Québec team grant. Team: P. L'Ecuyer (resp.), J. Ferland, G. Brassard and F. Vázquez-Abad. “Méthodes probabilistes en informatique”.	44,000\$/year
1995	FCAR–team (equipment).	9,500\$
1994–95	NSERC equipment grant. Team: J. Ferland (resp.), P. L'Ecuyer, P. Marcotte, P. Michelon, F. Vázquez-Abad.	86,280\$
1992–95	NSERC-Canada individual operating grant. “Simulation et optimisation des systèmes stochastiques”.	32,000\$/year
1993–94	FRSQ-Québec team grant. Team: C. Tilquin (resp.), J. Ferland, P. Michelon, B. Jaumard, C. Ribeiro, C. Sicotte, L. Lamothe, and P. L'Ecuyer. “Recherche Opérationnelle en Santé”.	87,930\$
1994–95	idem.	87,720\$
1992–95	FCAR-Québec team grant. Team: P. L'Ecuyer (resp.), J. Ferland, and G. Brassard. “Méthodes probabilistes en informatique”.	72,900\$/year
1992	FCAR–team (equipment).	11,000\$
1991–92	NSERC equipment grant: “Poste de travail UNIX”.	11,721\$
1990–91	Grant from CAFIR, (U. of Montreal): “Modèles stochastiques et simulation”.	6,500\$
1991	Grant from the Ministry of External Affairs and External Commerce of Canada: scientific cooperation with the IBM Tokyo Research Laboratory on random number generation.	4,000\$
1990–91	Grant from the University of Montreal: “Etude d'algorithmes de simulation”.	12,000\$
1989–92	NSERC-Canada individual operating grant. “Simulation et commande des systèmes stochastiques”.	19,500\$/year
1988–91	FCAR team grant. Team: P. L'Ecuyer (resp.) and Thien Vo-Dai. “Modélisation, simulation et optimisation des systèmes dynamiques stochastiques”.	23,200\$/year
1986–89	NSERC-Canada individual operating grant. “Optimisation des systèmes dynamiques stochastiques: application aux problèmes de maintenance et de production”.	13,500\$/year

1986–88	FCAR team grant. Team: P. L’Ecuyer (resp.) and Thien Vo-Dai. “Méthodes de recherche opérationnelle face aux problèmes de performance des systèmes informatiques”.	12,000\$/year
1987	Grant for a pedagogical innovation project (simulation software), Laval University.	4,800\$
1985–86	Research Grant from Laval University.	3,000\$
1983–86	NSERC-Canada individual operating grant. “Optimisation des systèmes dynamiques stochastiques: application aux problèmes de maintenance et de production”.	12,243\$/year
1985–86	FCAR team grant. Team: P. L’Ecuyer (resp.) and Thien Vo-Dai. “Méthodes de recherche opérationnelle face aux problèmes de performance des systèmes informatiques”.	13,404\$
1984–85	idem.	10,427\$
1984–85	NSERC-Canada research development grant.	13,000\$

LIST OF SCIENTIFIC PUBLICATIONS

1. Encyclopedia and book sections:

- [1] Z. I. Botev, D. P. Kroese, R. Y. Rubinstein, and P. L’Ecuyer, “The Cross-Entropy Method for Optimization,” in *Handbook of Statistics, Volume 31: Machine Learning*, V. Govindaraju and C. R. Rao, Eds, North Holland, 2011, to appear.
- [2] P. L’Ecuyer, “Uniform Random Number Generators”, in *International Encyclopedia of Statistical Science*, M. Lovric ed., Springer-Verlag, 2011, Part 21, 1625–1630.
- [3] P. L’Ecuyer, “Non-Uniform Random Variate Generation”, in *International Encyclopedia of Statistical Science*, M. Lovric ed., Springer-Verlag, 2011, Part 14, 991–995.
- [4] J. F. Shortle and P. L’Ecuyer, “Introduction to Rare-Event Simulation”, in *Wiley Encyclopedia of Operations Research and Management Science*, John Wiley, 2011.
- [5] P. L’Ecuyer, “Random Number Generators”, in *Encyclopedia of Operations Research and Management Science*, Third Edition, S. I. Gass and M. C. Fu, eds., Springer-Verlag, 2011.
- [6] P. L’Ecuyer, “Random Number Generation”, invited contribution, chapter of the *Handbook of Computational Statistics*, Second Edition, J. E. Gentle, W. Haerdle, and Y. Mori, eds., Springer-Verlag, 2011.
- [7] H. Cancela, P. L’Ecuyer, M. Lee, G. Rubino, and B. Tuffin, “Analysis and Improvements of Path-Based Methods for Monte Carlo Reliability Evaluation of Static Models,” chapter 3 of *Simulation Methods for Reliability and Availability of Complex Systems*, J. Faulin, A. A. Juan, S. Martorell, and E. Ramirez-Marquez eds., Springer-Verlag, 2010, 65–84.
- [8] P. L’Ecuyer and F. Panneton, “ \mathbb{F}_2 -Linear Random Number Generators”, invited chapter for the book: *Advancing the Frontiers of Simulation: A Festschrift in Honor of George Samuel*

- Fishman*, C. Alexopoulos, D. Goldsman, and J. R. Wilson Eds., Springer-Verlag, 2009, 169–193.
- [9] P. L’Ecuyer, M. Mandjes, and B. Tuffin, “Importance Sampling and Rare Event Simulation,” in *Rare Event Simulation Using Monte Carlo Methods*, G. Rubino and B. Tuffin Eds, Wiley, 2009, 17–38.
- [10] P. L’Ecuyer, F. LeGland, P. Lezaud, and B. Tuffin, “Splitting Techniques,” in *Rare Event Simulation Using Monte Carlo Methods*, G. Rubino and B. Tuffin Eds, Wiley, 2009, 39–62.
- [11] P. L’Ecuyer, “Pseudorandom Number Generators”, a section of the *Encyclopedia of Quantitative Finance*, R. Cont, Ed., Wiley, 2010, 1431–1437.
- [12] P. L’Ecuyer, “Random Number Generation”, invited contribution, chapter 3 of the *Elsevier Handbooks in Operations Research and Management Science: Simulation*, S. G. Henderson and B. L. Nelson, eds., Elsevier Science, Amsterdam, 2006, 55–81.
- [13] P. L’Ecuyer, “Random Number Generation”, invited contribution, chapter 2 of the *Handbook of Computational Statistics*, J. E. Gentle, W. Haerdle, and Y. Mori, eds., Springer-Verlag, 2004, 35–70.
- [14] P. L’Ecuyer, “Random Number Generation and Quasi-Monte Carlo”, a section of the *Encyclopedia of Actuarial Science*, J. Teugels and B. Sundt Eds., John Wiley, Chichester, UK, 2004, vol. 3, 1363–1369.
- [15] P. L’Ecuyer and C. Lemieux, “Recent Advances in Randomized Quasi-Monte Carlo Methods”, an invited Chapter of *Modeling Uncertainty: An Examination of Stochastic Theory, Methods, and Applications*, M. Dror, P. L’Ecuyer, and F. Szidarovszki, Eds., Kluwer Academic Publishers, 2002, 419–474.
- [16] H. Ben Ameur, M. Breton, and P. L’Ecuyer, “Partial Hedging for Options Based on Extreme Values and Passage Times”, *Decision and Control in Management Science: in Honor of Professor Alain Haurie*, G. Zaccour Ed., Kluwer Academic Publishers, 2002, 179–200.
- [17] P. L’Ecuyer, “Random Numbers”, a section of the *International Encyclopedia of the Social and Behavioral Sciences*, N. J. Smelser and Paul B. Baltes Eds., Pergamon, Oxford, 2002, 12735–12738.
- [18] P. L’Ecuyer, “Random Number Generators”, in *Encyclopedia of Operations Research and Management Science*, Second Edition, S. I. Gass and C. M. Harris Eds., Kluwer Academic Publishers, 2001, 695–702.
- [19] P. L’Ecuyer and P. Hellekalek, “Random Number Generators: Selection Criteria and Testing”, in *Random and Quasi-Random Point Sets, Lecture Notes in Statistics* **138**, Springer, New York, 1998, 223–266.
- [20] P. L’Ecuyer, “Random Number Generation”, Chapter 4 of *The Handbook of Simulation*, Jerry Banks Ed., Wiley, New York, 1998, 93–137.
- [21] P. L’Ecuyer, “Uniform Random Number Generation”, *Encyclopedia of Computer Science and Technology*, Vol. 39, A. Kent and J. G. Williams Eds., Marcel Dekker, New York, 1998, 323–339.

- [22] P. L’Ecuyer, “Random Number Generators”, a section of *Encyclopedia of Operations Research and Management Science*, S. I. Gass and C. M. Harris Eds., Kluwer Academic Publishers, 1996, 571–578.

2. Papers in scientific journals:

- [23] D. Munger, P. L’Ecuyer, F. Bastin, C. Cirillo, and B. Tuffin, “Estimation of the Mixed Logit Likelihood Function by Randomized Quasi-Monte Carlo”, to appear in *Transportation Research Part B*, 2011.
- [24] V. Sinescu and P. L’Ecuyer, “Existence and Construction of Shifted Lattice Rules with an Arbitrary Number of Points and Bounded Weighted-Star Discrepancy for General Weights,” *Journal of Complexity*, **27**, 5 (2011), 449–465.
- [25] P. L’Ecuyer, G. Rubino, S. Saggadi, and B. Tuffin, “Approximate Zero-Variance Importance Sampling for Static Network Reliability Estimation,” *IEEE Transactions on Reliability*, **8**, 4, (2011), 590–604.
- [26] R. Simard and P. L’Ecuyer, “Computing the Two-Sided Kolmogorov-Smirnov Distribution,” *Journal of Statistical Software*, **39**, 11, 2011.
- [27] P. L’Ecuyer and B. Tuffin, “Approximating Zero-Variance Importance Sampling in a Reliability Setting,” *Annals of Operations Research*, **189**, (2011), 277–297.
- [28] P. L’Ecuyer, D. Munger, and B. Tuffin, “On the Limit Distribution of Integration Error by Randomly-Shifted Lattice Rules,” *Electronic Journal of Statistics* (published by the IMS), **4**, (2010), 950–993. <http://dx.doi.org/10.1214/10-EJS574>
- [29] P. L’Ecuyer and C. Sanvido, “Coupling from the Past with Randomized Quasi-Monte Carlo”, *Mathematics and Computers in Simulation*, **81**, 3 (2010), 476–489.
- [30] R. El Haddad, C. Lécot, P. L’Ecuyer, and N. Nassif, “Quasi-Monte Carlo methods for Markov chains with continuous multi-dimensional state space”, *Mathematics and Computers in Simulation*, **81**, 3 (2010), 560–567.
- [31] P. L’Ecuyer, J. Blanchet, B. Tuffin, and P. W. Glynn, “Asymptotic Robustness of Estimators in Rare-Event Simulation”, *ACM Transactions on Modeling and Computer Simulation*, **20**, 1 (2010), Article 6, 41 pages.
- [32] F. Panneton and P. L’Ecuyer, “Resolution-Stationary Random Number Generators”, *Mathematics and Computers in Simulation*, **80**, 6 (2010), 1096–1103. <http://dx.doi.org/10.1016/j.matcom.2007.09.014>.
- [33] A. N. Avramidis, W. Chan, M. Gendreau, P. L’Ecuyer, and O. Pisacane, “Agent Scheduling in a Multiskill Call Center,” *European J. of Operations Research*, **200**, 3 (2010) 822–832.
- [34] P. L’Ecuyer, “Quasi-Monte Carlo Methods with Applications in Finance,” *Finance and Stochastics*, **13**, 3 (2009), 307–349.
- [35] A. N. Avramidis, W. Chan, and P. L’Ecuyer, “Staffing multi-skill call centers via search methods and a performance approximation”, *IIE Transactions*, **41** (2009), 483–497.

- [36] A. N. Avramidis, N. Channouf, and P. L'Ecuyer, "Efficient Correlation Matching for Fitting Discrete Multivariate Distributions with Arbitrary Marginals and Normal Copula Dependence", *INFORMS Journal on Computing*, 21, 1 (2009), 88–106.
- [37] P. L'Ecuyer, C. Lécot, and B. Tuffin, "A Randomized Quasi-Monte Carlo Simulation Method for Markov Chains", *Operations Research*, 56, 4 (2008), 958–975.
- [38] H. Haramoto, M. Matsumoto, T. Nishimura, F. Panneton, and P. L'Ecuyer, "Efficient Jumping Ahead for \mathbb{F}_2 -Linear Random Number Generators", *INFORMS Journal on Computing*, 20, 3 (2008), 385–390.
- [39] P. L'Ecuyer and E. Buist, "On the Interaction Between Stratification and Control Variates, with Application to a Call Center Simulation", *Journal of Simulation*, 2 (2008) 29–40.
- [40] W. K. Grassmann, M. L. Puterman, P. L'Ecuyer, and A. Ingolfsson. "Four canadian contributions to stochastic modeling", *INFOR*, 46, 1 (2008), 3–14.
- [41] T. Cezik and P. L'Ecuyer, "Staffing Multiskill Call Centers via Linear Programming and Simulation", *Management Science*, 54, 2 (2008), 310–323.
- [42] P. L'Ecuyer and R. Simard, "TestU01: A C Library for Empirical Testing of Random Number Generators", *ACM Transactions on Mathematical Software*, 33, 4 (2007), Article 22, 40 pages.
- [43] P. L'Ecuyer, V. Demers, and B. Tuffin, "Rare-Events, Splitting, and Quasi-Monte Carlo", *ACM Transactions on Modeling and Computer Simulation*, 17, 2 (2007), Article 9, 44 pages.
- [44] H. Ben-Ameur, M. Breton, L. Karoui, and P. L'Ecuyer, "A Dynamic Programming Approach for Pricing Options Embedded in Bond", *Journal of Economic Dynamics and Control*, 31 (2007), 2212–2233.
- [45] A. Deslauriers, J. Pichitlamken, P. L'Ecuyer, A. Ingolfsson, and A. N. Avramidis, "Markov chain models of a telephone call center with call blending", *Computers and Operations Research*, 34, 6 (2007), 1616–1645.
- [46] N. Channouf, P. L'Ecuyer, A. Ingolfsson, and A. N. Avramidis, "The Application of Forecasting Techniques to Modeling Emergency Medical System Calls in Calgary, Alberta", *Health Care Management Science*, 10, 1 (2007), 25–45.
- [47] A. N. Avramidis and P. L'Ecuyer, "Efficient Monte Carlo and Quasi-Monte Carlo Option Pricing Under the Variance-Gamma Model", *Management Science*, 52, 12 (2006), 1930–1944.
- [48] P. L'Ecuyer and R. Simard, "Inverting the Symmetrical Beta Distribution", *ACM Transactions on Mathematical Software*, 32, 4 (2006), 509–520.
- [49] F. Panneton, P. L'Ecuyer, and M. Matsumoto, "Improved Long-Period Generators Based on Linear Recurrences Modulo 2", *ACM Transactions on Mathematical Software*, 32, 1 (2006), 1–16.
- [50] F. Panneton and P. L'Ecuyer, "On the Xorshift Random Number Generators", *ACM Transactions on Modeling and Computer Simulation*, 15, 4 (2005), 346–361.
- [51] P. L'Ecuyer and J. Leydold, "rstream: Streams of Random Numbers for Stochastic Simulation," *The R Newsletter*, 5, 2 (2005), 16–19.

- [52] P. L'Ecuyer, "Comment on "Control Variates for Quasi-Monte Carlo"" *Statistical Science*, **20**, 1 (2005), 19–21.
- [53] H. Ben Ameer, P. L'Ecuyer, and C. Lemieux, "Combination of general antithetic transformations and control variables", *Mathematics of Operations Research*, **29**, 4 (2004) 946–960.
- [54] A. N. Avramidis, A. Deslauriers, and P. L'Ecuyer, "Modeling Daily Arrivals to a Telephone Call center", *Management Science*, **50**, 7 (2004), 896–908.
- [55] P. L'Ecuyer and R. Touzin, "On the Deng-Lin Random Number Generators and Related Methods", *Statistics and Computing*, **14**, 1 (2003), 5–9.
- [56] C. Lemieux and P. L'Ecuyer, "Randomized Polynomial Lattice Rules for Multivariate Integration and Simulation", *SIAM Journal on Scientific Computing*, **24**, 5 (2003), 1768–1789.
- [57] P. L'Ecuyer and J. Granger-Piché, "Combined Generators with Components from Different Families", *Mathematics and Computers in Simulation*, **62** (2003), 395–404.
- [58] P. L'Ecuyer, R. Simard, and S. Wegenkittl, "Sparse Serial Tests of Uniformity for Random Number Generators", *SIAM Journal on Scientific Computing*, **24**, 2 (2002), 652–668.
- [59] P. L'Ecuyer, R. Simard, E. J. Chen, and W. D. Kelton, "An Objected-Oriented Random-Number Package with Many Long Streams and Substreams", *Operations Research*, **50**, 6 (2002), 1073–1075.
- [60] H. Ben Ameer, M. Breton, and P. L'Ecuyer, "Numerical Procedures for Pricing American-Style Asian Options", *Management Science*, **48**, 5 (2002), 625–643.
- [61] P. L'Ecuyer, and Y. Champoux, "Simulating Rare Events in an ATM Switch via Importance Sampling", *ACM Transactions on Modeling and Computer Simulation*, **11**, 1 (2001), 76–105.
- [62] F. J. Hickernell, H. S. Hong, P. L'Ecuyer, and C. Lemieux, "Extensible Lattice Sequences for Quasi-Monte Carlo Quadrature", *SIAM Journal on Scientific Computing*, **22**, 3 (2001), 1117–1138.
- [63] C. Lemieux and P. L'Ecuyer, "On Selection Criteria for Lattice Rules and Other Quasi-Monte Carlo Point Sets", *Mathematics and Computers in Simulation* **55**, 1–3 (2001), 139–148.
- [64] P. L'Ecuyer and R. Simard, "On the Interaction of Birthday Spacings Tests with Certain Families of Random Number Generators", *Mathematics and Computers in Simulation*, **55**, 1–3 (2001), 131–137.
- [65] P. L'Ecuyer and C. Lemieux, "Variance Reduction via Lattice Rules", *Management Science* **46**, 9 (2000), 1214–1235.
- [66] S. Yakowitz, P. L'Ecuyer, and F. J. Vázquez-Abad, "Global Stochastic Optimization with High-Dispersion Point Sets", *Operations Research*, **48**, 6 (2000), 939–950.
- [67] P. L'Ecuyer, J.-F. Cordeau, and R. Simard, "Close-Point Spatial Tests and their Application to Random Number Generators", *Operations Research*, **48**, 2 (2000), 308–317.
- [68] R. Couture and P. L'Ecuyer, "Lattice Computations for Random Numbers", *Mathematics of Computation*, **69**, 230 (2000), 757–765.

- [69] Q.-Y. Tang, P. L'Ecuyer and H.-F. Chen, "Central-Limit Theorems for Stochastic Optimization Algorithms using Infinitesimal Perturbation Analysis", *Discrete Event Dynamic Systems: Theory and Applications*, **10**, 1 (2000), 5–32.
- [70] D. Choquet, P. L'Ecuyer, and C. Léger, "Bootstrap Confidence Intervals for Ratios of Expectations", *ACM Transactions on Modeling and Computer Simulation* **9**, 4 (1999), 326–348.
- [71] P. L'Ecuyer and R. Simard, "Beware of Linear Congruential Generators with Multipliers of the form $a = \pm 2^q \pm 2^r$ ", *ACM Transactions on Mathematical Software* **25**, 3 (1999), 367–374.
- [72] P. L'Ecuyer, B. Martin, and F. Vázquez-Abad, "Functional Estimation for a Multicomponent Age-Replacement Model", *American Journal of Mathematical and Management Sciences*, **19**, 1–2, (1999), 135–156.
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- [103] P. L'Ecuyer, "Méthodes quasi-Monte Carlo Hasardées", Université de Savoie, Chambéry, France, April 2005.
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- [109] H. Ben-Ameur, M. Breton, L. Karoui and P. L'Ecuyer, "A Dynamic Programming Approach for Pricing Options Embedded in Bonds", 10th International Conference on Computing in Economics and Finance, Amsterdam, July 2004.

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- [246] P. L'Ecuyer, "Processus de renouvellement Markoviens commandés à espaces d'états continus", INRIA, Rocquencourt, France, March 1989.
- [247] P. L'Ecuyer and N. Giroux, "Numerical Experiments with Stochastic Optimization through Simulation", *University of Wisconsin, Madison*, Jan. 1989.
- [248] P. L'Ecuyer, "Computing Approximate Solutions to Markov Renewal Programs with Continuous State Spaces", *Stanford University, Stanford, Cal.*, Nov. 1988.
- [249] P. L'Ecuyer and N. Giroux, "Stochastic Optimization via Simulation", *Stanford University, Stanford, Cal.*, Nov. 1988.
- [250] P. L'Ecuyer and N. Giroux, "Some Numerical Experiments with Stochastic Optimization through Simulation", *ORSA-TIMS Conference*, Denver, Oct. 1988.
- [251] P. L'Ecuyer, M. Mayrand and M. Dror, "Dynamic Scheduling of a Robot Servicing Machines on a One-Dimensional Line", *EURO IX—TIMS XXVIII Joint International Conference*, Paris, July 1988.
- [252] P. L'Ecuyer, M. Mayrand and M. Dror, "Dynamic Scheduling of a Robot Servicing Machines on a One-Dimensional Line", *ENSM, Nantes, France*, July 1988.
- [253] P. L'Ecuyer and N. Giroux, "Optimisation Stochastique de Type Monte-Carlo: Quelques Comparaisons Empiriques", *Optimization Days*, Montréal, May 1988.
- [254] P. L'Ecuyer, M. Mayrand and M. Dror, "Dynamic Scheduling of a Robot Servicing Machines on a One-Dimensional Line", *Optimization Days*, Montréal, May 1988.
- [255] P. L'Ecuyer and F. Blouin, "Generalized Linear Congruential Generators", *ORSA/TIMS Conference*, St-Louis, Oct. 1987.
- [256] P. L'Ecuyer, "Logiciel pour la génération de valeurs pseudo-aléatoires", Université Laval, Jan. 1987.
- [257] P. L'Ecuyer, "Un module pour la génération de valeurs pseudo-aléatoires", Ecole Mohammedia d'ingénieurs, Rabat, Maroc, June 1986.
- [258] P. L'Ecuyer, "Génération de valeurs pseudo-aléatoires", Université de Sherbrooke, May 1986.
- [259] P. L'Ecuyer, "Logiciel de génération de valeurs pseudo-aléatoires", Université de Montréal, April 1986.
- [260] P. L'Ecuyer, A. Haurie and A. Hollander, "Calcul de stratégies optimales d'investissement", *Optimization Days '85*, Montréal, May 1985.

- [261] P. L'Ecuyer, A. Haurie and A. Hollander, "Optimal Research and Development Expenditures Under an Incremental Tax Incentive Scheme", *TIMS/ORSA Conference*, Dallas, Nov. 1984.
- [262] P. L'Ecuyer, "Computing Performance Measures for Transfer Lines Using Dynamic Programming", *TIMS/ORSA Conference*, San Francisco, May 1984.
- [263] P. L'Ecuyer, "Bounds and Approximations in Discrete-Stage Markovian Decision Processes", *Optimization Days'83*, Montréal, May 1983.
- [264] P. L'Ecuyer and A. Haurie, "Isotonicity in Discrete-Stage Markovian Decision Processes", *XI-th International Symposium on Mathematical Programming*, Bonn (Germany), Aug. 1982.

SUPERVISION OF GRADUATE STUDENTS

A. Degrees completed:

1. Arbi Bouchoucha (M.Sc.) "Modèles dynamiques pour l'estimation de métriques de couplage dans les logiciels" (co-supervision with H. Sarahoui), July 2011.
2. Maxime Dion (M.Sc., with internship) "Méthodes quasi-Monte Carlo moindres carrés pour l'évaluation d'options de type américain," Dec. 2009.
3. Serge Barbeau (M.Sc., with internship) "Recherches de suites de Sobol' ayant une meilleure uniformité 2D et 3D," Dec. 2009.
4. Éric Buist (Ph.D.) "Simulation des centres de contact," May 2009.
5. Jean-Sébastien Parent-Chartier (M.Sc., with internship) "Réduction de la dimension effective dans la simulation de processus de Lévy," Dec. 2008.
6. Nabil Channouf (Ph.D.) "Modélisation et optimisation d'un centre d'appels téléphoniques: étude du processus d'arrivée," Aug. 2008.
7. Ornella Pisacane (Ph.D., Università della Calabria, Italia) "Stochastic Optimization of Agent's Scheduling and in Call Centers," Jan. 2008.
8. Charles Sanvido (M.Sc.) "Applications d'une méthode quasi-Monte Carlo randomisée pour l'échantillonnage parfait dans les chaînes de Markov," March 2007.
9. Wyeon Chan (M.Sc.) "Optimisation stochastique pour l'allocation des agents dans un centre d'appels avec plusieurs types d'agents," Feb. 2007.
10. Boni-Abdel Chabi-Yo (M.Sc., with internship) "Méthodes de simulation pour l'évaluation de produits dérivés basés sur les taux d'intérêt" (collaboration avec la Caisse Centrale Desjardins). Jan. 2007.
11. Nicolas Marcotte (M.Sc., with internship) "Modèles de taux d'intérêt et simulation" (collaboration avec la Caisse Centrale Desjardins), Sept. 2006.
12. Éric Buist (M.Sc.) "Outils de simulation en Java pour les centres de contact," Sept. 2005.
13. Jean-Sébastien Boyer (M.Sc., with internship) "Estimation de la valeur à risque par Monte Carlo pour des produits dérivés sur le marché du gaz naturel" (collaboration avec Gaz Métropolitain), Aug. 2005.

14. François Panneton (Ph.D.) “Construction d’ensembles de points basée sur des récurrences linéaires dans un corps fini de caractéristique 2 pour la simulation Monte Carlo et l’intégration quasi-Monte Carlo”, Oct. 2004.
15. Alexandre Deslauriers (M.Sc.) “Modélisation et simulation d’un centre d’appels téléphonique dans un environnement mixte”, March 2003.
16. Lakhdar Meliani (M.Sc.) “Un cadre d’application pour la simulation stochastique en Java” (co-supervision with S. Nguyen), April 2002.
17. Hatem Ben Ameer (Ph.D.) “Simulation and Numerical Procedures for Option Pricing” (co-supervision with M. Breton, H.E.C.), Oct. 2001.
18. Jacinthe Granger-Piché (M.Sc.) “Générateurs pseudo-aléatoires combinant des récurrences linéaires et non linéaires”, Aug. 2001.
19. Renée Touzin (M.Sc.) “Des générateurs récursifs multiples combinés rapides avec des coefficients de la forme $\pm 2^{p_1} \pm 2^{p_2}$ ”, May 2001.
20. François Panneton (M.Sc.) “Générateurs de nombres aléatoires utilisant des récurrences linéaires modulo 2”, Nov. 2000.
21. Christiane Lemieux (Ph.D.), “L’Utilisation des règles de réseau en simulation comme technique de réduction de variance”, May 2000.
22. Yanick Champoux (M.Sc.) “Estimation du taux de perte de réseaux ATM via la simulation et le changement de mesure” (collaboration with Newbridge Networks Corp.), Aug. 1998.
23. Issoufou Mounkaila (M.Sc., Univ. Laval), “Traducteur Automatique de Modula-2 en C” (co-supervision with J. Bergeron, Université Laval), June 1998.
24. Denis Choquet (M.Sc.) “Intervalles de confiance par “bootstrap” pour la simulation régénérative” (co-supervision with C. Léger), Aug. 1997.
25. Benoît Martin (M.Sc.), “Estimation fonctionnelle et optimisation par simulation pour des modèles d’entretien préventif” (co-supervision with F. Vázquez-Abad), Nov. 1996.
26. Richard Simard (M.Sc.) “Solutions algébriques-numériques des systèmes différentiels à l’aide des séries de Tchébycheff” (co-supervision with R. Zahar), Jan. 1995
27. Martin Boucher (M.Sc.) “Les générateurs cryptographiques et leurs applications pratiques en simulation” (co-supervision with G. Brassard), Aug. 1994.
28. Samih Abdul Nabi (M.Sc.), “Variantes de la méthode du recuit simulé pour la coloration des graphes” (co-supervision with J. Ferland), Aug. 1993.
29. Bernard Plante (M.Sc., Univ. Laval), “Utilisation de la répartition journalière du trafic pour dimensionner les réseaux voix/données”, Nov. 1993.
30. Ilfat Ghamlouche (M.Sc.), “Variantes de la méthode Tabou pour la coloration de graphes” (co-supervision with J. Ferland), 1993.
31. Gaetan Perron (M.Sc.) “Estimation de gradient et optimisation par simulation”, Jan. 1992.

32. Martin Richard (M.Sc.) “Etude des langages temps-réel synchrones; application dans le langage Esterel” (co-supervision with O. Roux), March 1991.
33. Serge Côté (M.Sc.), “Un progiciel de simulation basé sur ADA”, Oct. 1990.
34. François Blouin (M.Sc.), “Générateurs à congruence linéaire généralisés”, Nov. 1989.
35. Nataly Giroux (M.Sc.), “Optimisation stochastique de type Monte-Carlo”, Jan. 1989.
36. Jacques Malenfant (M.Sc.), “Modélisation du rétablissement lors des pannes dans les bases de données par des processus de renouvellement commandés”, Dec. 1986.
37. Abderhaim Loukili (M.Sc.), “Optimisation par la simulation”, 1986.

B. Students under supervision:

1. Pierre-Alexandre Tremblay (Ph.D.) “Calcul efficace de politiques pour un problème de réplication avec applications financières.”
2. Wyeon Chan (Ph.D.) “Optimisation dans les centres de contact.”
3. Nader Kobrossi (M.Sc.) “Estimation de sensibilité pour des processus de Lévy.”
4. Alexandru Ionut (M.Sc., mathématiques) “Analyse d’une classe de générateurs pseudoaléatoires récurrents multiples.”
5. Rabah Maache (M.Sc.) Modélisation et simulation de centres d’appels avec des lois de durées de service différentes par agent.
6. Nabil Kemerchou (M.Sc.) Problèmes d’optimisation dans les centres d’appels (to be determined).
7. El Houcine Fettahi (M.Sc.) “Processus de construction de portefeuille indiciel.”
8. Thuy Anh Ta (M.Sc.) Optimisation stochastique (to be determined) (co-supervision with F. Bastin).
9. Mamadou Thiongane (Ph.D.) Simulation des centres d’appels (to be determined).

C. Postdoctoral fellows:

1. Nicholas Chapados, Préviation de la demande et optimisation stochastique des horaires dans le commerce au détail, May 2011–
2. Amel Jaoua, “Développement d’outils de simulation des centres d’appels d’Hydro-Québec”, Bourse industrielle MITACS–Hydro-Québec. Sept. 2009–
3. David Munger, “Studying the convergence and distribution of randomized quasi-Monte Carlo estimators via Hilbert spaces”, March 2009–
4. Zdravko I. Botev, Méthodes de splitting pour les chaînes de Markov et estimation de probabilités minuscules par simulation, Oct. 2010–Sept. 2011.
5. Rouba Ibrahim, “Modélisation, simulation et approximation pour les phénomènes d’attente dans les centres d’appels téléphoniques,” Sept. 2010–Aug. 2011.

6. Marco Bijvank, “Simulation et optimisation pour la gestion du revenu en transport aérien,” (co-supervision with Patrice Marcotte), March 2010–Sept. 2011.
7. Maxime Dion “Méthodes Monte Carlo et quasi-Monte Carlo en programmation dynamique.” Jan. 2010–Dec. 2010.
8. Vasile Sinescu, “Construction and analysis of lattice rules for high-dimensional integration”, May 2008– Dec. 2009.
9. Mohammed Hamdouni, “Scheduling agents in a call center”, May 2006–April 2007.
10. Tolga Çezik, “Optimization of staffing and scheduling in call centers”, Oct. 2003–Dec. 2004.
11. Jutta Pichitlamken, “Optimization via simulation, with application to improving the management policies of telephone call centers”, Oct. 2002–Sept. 2003.
12. Hee Sun Regina Hong, “Implementation of randomized highly-uniform point sets for high-dimensional numerical integration”, June 2002–Aug. 2002.
13. Nabil Belacel, “Modélisation, simulation et optimisation d’un centre d’appels en mode mixte” (co-supervision with Pierre Hansen), Jan. 2001–Dec. 2001.
14. Qian-Yu Tang, “Convergence of stochastic approximation algorithms”, Sept. 1995–June 1997.

OTHER PROFESSIONAL ACTIVITIES

Editorial and reviewing tasks

- Editor-in-Chief of the *ACM Transactions on Modeling and Computer Simulation* (TOMACS), since May 1, 2010.
- Area Editor for the *ACM Transactions on Modeling and Computer Simulation*, January 1994–April 2010.
- Associate Editor for the *ACM Transactions on Mathematical Software*, since August 2004.
- Associate Editor for *Statistics and Computing* (Springer-Verlag), since June 2003.
- Associate Editor for *International Transactions in Operational Research*, since May 2007.
- Associate Editor for *Cryptography and Communications—Discrete Structures, Boolean Functions and Sequences* (Springer-Verlag), since December 2006.
- Associate Editor for *Management Science*, January 2009–January 2011.
- Associate Editor for *The Open Applied Mathematics Journal*, January 2007–June 2010.
- Departmental Editor for the *Simulation* Department of *Management Science*, January 1993–May 1998.
- Guest Editor for a Special Issue of the *ACM Transactions on Modeling and Computer Simulation* on Random Number Generation and Highly-Uniform Point Sets, 2003.
- Guest Editor for a Special Issue of the *ACM Transactions on Modeling and Computer Simulation* on Random Number Generation, 1998.

- Reviewer for international scientific journals and some book manuscripts. Since 1985:
 1. ACM Transactions on Modeling and Computer Simulation;
 2. ACM Transactions on Mathematical Software;
 3. Annals of Applied Probability;
 4. Annals of the Institute of Statistical Mathematics;
 5. Annals of Operations Research;
 6. Applicable Algebra (AAECC);
 7. Applied Mathematics and Computation;
 8. Applied Physics Letters;
 9. Automatica;
 10. BIT Numerical Mathematics;
 11. Chemical Engineering Science;
 12. Communications in Statistics—Simulation and Computation;
 13. Communications of the ACM;
 14. Computational Geosciences;
 15. Computational Statistics and Data Analysis;
 16. Computer Science in Economics and Management;
 17. Computer Physics Communications;
 18. Computers and Mathematics with Applications;
 19. Computers and Operations Research;
 20. Computers in Physics;
 21. Concurrency and Computation: Practice and Experience;
 22. Cryptography and Communications;
 23. Discrete Event Dynamic Systems: Theory and Applications;
 24. Electronic Letters;
 25. European Journal of Control;
 26. European Journal of Operations Research;
 27. Europhysics Letters;
 28. Finite Fields and Their Applications;
 29. Foundations of Computational Mathematics;
 30. Health Care Management Science;
 31. IBM Journal of Research and Development;
 32. IEE Proceedings on Computers and Digital Techniques;
 33. IEEE Communications Magazine;
 34. IEEE Transactions on Automatic Control;
 35. IEEE Transactions on Circuits and Systems;
 36. IEEE Transactions on Communications;
 37. IEEE Transactions on Computers;
 38. IEEE Transactions on Information Forensics and Security;
 39. IEEE Transactions on Information Theory;
 40. IEEE Transactions on Reliability;
 41. IEEE Transactions on Systems, Man, and Cybernetics;

42. IEICE Trans. on Fundamentals of Electronics, Commun. and Comput. Sciences;
43. IEICE Transactions on Information and Systems;
44. IIE Transactions;
45. INFOR;
46. INFORMS Journal on Computing;
47. Interfaces;
48. International Journal of Computers and Their Applications;
49. International Journal of Computer Mathematics;
50. International Journal of Mathematics and Mathematical Sciences;
51. International Journal of Parallel, Emergent, and Distributed Systems;
52. International Journal of Production Economics;
53. International Journal of Systems Science;
54. International Transactions in Operational Research;
55. Investigación Operativa;
56. Information Processing Letters;
57. IPSI Transactions on Internet Research;
58. Journal of Applied Probability;
59. Journal of Applied Statistics;
60. Journal of Complexity;
61. Journal of Computational and Applied Mathematics;
62. Journal of Computational and Graphical Statistics;
63. Journal of Computational Finance;
64. Journal of Computational Physics;
65. Journal of Economic Dynamics and Control;
66. Journal of Experimental Algorithms;
67. Journal of Mathematics and Mathematical Sciences;
68. Journal of Optimization Theory and Applications;
69. Journal of Physics A: Mathematical and General;
70. Journal of Statistical Computation and Simulation;
71. Journal of Statistical Planning and Inference;
72. Journal of Statistical Software;
73. Journal of Systems and Software;
74. Journal of the American Statistical Association;
75. Journal of the Franklin Institute;
76. Journal of the Institute of Electronic, Information, and Commun. Engineers.
77. Journal of Zhejiang University Science;
78. Management Science;
79. Manufacturing and Service Operations Management;
80. Mathematical Programming;
81. Mathematical and Computer Modeling;
82. Mathematics and Computers in Simulation;
83. Mathematics of Computation;
84. Mathematics of Operations Research;

85. Measurement Science and Technology;
86. Monatshefte für Mathematik;
87. Naval Research Logistics;
88. Operations Research;
89. Operations Research Letters;
90. Optimal Control Applications and Methods;
91. Optimization Methods and Software;
92. ORSA Journal on Computing;
93. Physical Review E;
94. Proceedings of the National Academy of Science of the USA;
95. Proceedings of the Royal Society A;
96. Production and Operations Management;
97. Pure and Applied Mathematics Quarterly;
98. Quantitative Finance;
99. Science;
100. Scientia Iranica
101. Scientific Programming;
102. SIAM Journal on Optimization;
103. SIAM Journal on Scientific Computing;
104. Simulation;
105. Simulation Modelling Practice and Theory;
106. Software Practice and Experience;
107. Statistica Neerlandica;
108. Statistics and Computing;
109. Statistics and Probability Letters;
110. Stochastic Models;
111. Technique et Science Informatique;
112. The American Statistician;
113. The Computer Journal;
114. The Open Applied Mathematics Journal;
115. Theory of Computing Systems;
116. Transactions of the Society for Modeling and Simulation International;
117. Transportation Science;
118. VLSI Design;

119. Cambridge University Press (books);
120. Elsevier Science: Handbook of Operations Research and Management Science;
121. Lecture Notes in Statistics (Springer Series);
122. Kluwer Academic (books and chapters);
123. McGraw-Hill (books);
124. Springer-Verlag (books);
125. Wiley (books);
126. Wiley Encyclopedia of Operations Research and Management;

- Reviewer for Several conference proceedings.
- Grant proposal evaluations for: NSERC (Canada), MITACS (Canada), Canada Research Chairs, Canada Council for the Arts (Killam Fellowships), Fond Québécois de Recherche en Nature et Technologie (Quebec), National Science Foundation (USA), Agence Nationale de la Recherche (France), Institut National de Recherche en Informatique et Automatique (France), Région de Bretagne (France), K.U. Leuven (Belgium), Netherlands Organisation for Scientific Research.
- Evaluation for promotion and prizes for the following Universities:
 - Austrian Academy of Science; Bilkent University, Ankara, Turquie;
 - Columbia University (Industrial Engineering), New York, USA;
 - Columbia University (Business School), New York, USA;
 - Florida State University; Cornell University, USA;
 - Georgia Institute of Technology (Industrial and Systems Engineering), USA;
 - Indian School of Business, Gachibowli, India;
 - INRIA, France;
 - Kuwait University;
 - Lahore University of Management Sciences, Pakistan;
 - Memphis State University, Memphis, USA;
 - North-Carolina State University (Industrial Engineering), USA;
 - Northwestern University (Industrial Engineering), Illinois, USA;
 - Rice University, Houston, USA;
 - Stanford University, USA;
 - Université McGill, Montréal;
 - University of Calgary, Canada;
 - University of Cambridge; University of Cincinnati, USA;
 - University of North-Carolina, Chapel-Hill, USA;
 - University of Queensland, Australia; University of Salzburg, Autriche;
 - University of Southampton, U.K.
 - University of Western Ontario;
 - University of Wisconsin, Madison, USA;

Conferences and workshops

- Organizer and Chair of the *INFORMS Simulation Society Workshop* (held every two years), Montreal, July 2011.
- Organizer and Chair of an international research workshop on call centers, Montreal, May 2010.
- Organizer and Chair of the *Eighth International Conference on Monte Carlo and Quasi-Monte Carlo Methods in Scientific Computing* (MCQMC'08), Montreal, July 6–11, 2008.
- Organizer and Chair of an international workshop on call centers, Montreal, May 2006.

- Organizer and Chair of a two-week international workshop on random number generators and highly-uniform point sets, at the Mathematical Research Center, Montreal, June 2002.
- Co-organizer (with G. Gauthier) of an international workshop on mathematical finance, sponsored by GERAD and CIRANO, University of Montreal, May 1999.
- Organizer and Chair of a three-week international workshop on pseudorandom number generation, at the Mathematical Research Center in Montreal, 3–21 June 1996.
- Program Committee Member of international conferences. Since 2000:

MCM'2013: Ninth IMACS Seminar on Monte Carlo Methods, Annecy, France, Aug. 2013.

WSC'2012: Winter Simulation Conference, Berlin, Dec. 2012.

MCQMC'2012: Tenth International Conference on Monte Carlo and Quasi-Monte Carlo Methods in Scientific Computing, Sydney, Australia, Feb. 2012.

MCM'2011: Eighth IMACS Seminar on Monte Carlo Methods, Bulgaria, Aug. 2011.

INFORMS Simulation Society Research Workshop (chair and organizer), Montreal, July 2011.

MCQMC'2010: Ninth International Conference on Monte Carlo and Quasi-Monte Carlo Methods in Scientific Computing, Warsaw, Poland, Aug. 2010.

MOSIM'2010: 8-ième Conférence Francophone de Modélisation et Simulation, Tunisie, May 2010.

SIMUTools'2010: Spain March 2010.

SIMUL2009: Porto, Portugal, Sept. 2009.

MCM'2009: Seventh IMACS Seminar on Monte Carlo Methods, Bruxelles, Belgique, Sept. 2009.

The 15th INFORMS Applied Probability Society Conference, Ithaca, New York, July 2009.

ISC'2009: International Industrial Simulation Conference, Loughborough, United Kingdom, June 2009.

SIMUTools'2009: Rome, Italia, March 2009.

ESM'2008: European Simulation and Modeling Conference, Le Havre, France Oct. 2008.

RESIM'2008: 7th International Workshop on Rare Event Simulation, Rennes, France, Sept. 2008.

Workshop on Generation, Testing and Applications of Random Number Sequences, Bucharest, Sept. 2008.

MCQMC'2008: Eighth International Conference on Monte Carlo and Quasi-Monte Carlo Methods in Scientific Computing (Chair and organizer), Montréal, Canada, July 2008.

ISC'2008: International Industrial Simulation Conference, Lyon, France, June 2008.

MOSIM'2008: 7-ième Conférence Francophone de Modélisation et Simulation, Paris, April 2008.

SIMUTools'2008, Marseilles, March 2008.

ESM'2007: European Simulation and Modeling Conference, Malta, Oct. 2007.

Valuetools 2007: International Conference on Performance Evaluation Methodologies and Tools, Nantes, France, Oct. 2007.

ISC'2007: International Industrial Simulation Conference, Delft, June 2007.

MCM'2007: Sixth IMACS Seminar on Monte Carlo Methods, Reading, United Kingdom, June 2007.

ESM'2006: European Simulation and Modeling Conference, Toulouse, France, Oct. 2006.

MCQMC'2006: Seventh International Conference on Monte Carlo and Quasi-Monte Carlo Methods in Scientific Computing, Ulm, Germany, Aug. 2006.

ISC'2006: Industrial Simulation Conference, Palermo, Italy, June 2006.

Workshop on Call Centers, Montréal, May 2006.

ESM'2005: European Simulation and Modeling Conference, Porto, Portugal, Oct. 2005.

APS'2005: INFORMS Applied Probability Society Conference, Ottawa, Canada, July 2005.

MCM'2005: IMACS Symposium on Monte Carlo Methods, Tallahassee, Florida, May 2005.

MCQMC'2004: Sixth International Conference on Monte Carlo and Quasi-Monte Carlo Methods in Scientific Computing, Juan-Les-Pins, France, June 2004.

International Conference on Computational Science and its Applications, Montréal, 18–21 May 2003.

Fifth International Conference on Monte Carlo and Quasi-Monte Carlo Methods in Scientific Computing, Singapore, Nov. 2002.

Workshop on Random Number Generators and Highly Uniform Point Sets, Montréal, 17–28 June 2002.

European Simulation Multiconference, Darmstadt, Germany, June 2002.

International Conference on Grand Challenges for Modeling and Simulation, San Antonio, Texas, Jan. 2002.

MCM'2001: IMACS Seminar on Monte Carlo Methods, Salzburg, Austria, Sept. 2001.

Troisièmes Journées Francophones de Recherche Opérationnelle, Québec, May 2000.

Fourth International Conference on Monte Carlo and Quasi-Monte Carlo Methods in Scientific Computing, Hong Kong, Dec. 2000.

International Workshop on Decision and Control in Management Sciences, Montreal, Oct. 2000.

Other

- Member of several Ph.D. thesis and M.Sc. thesis committees.
- Steering Committee Member for the IMACS Seminar on Monte Carlo Methods (biennial conference), since 2009.

- Steering Committee Member for the International Conference on Monte Carlo and Quasi-Monte Carlo Methods in Scientific Computing, since 2006.
- Member of the selection committee for the “INFORMS Simulation Society Outstanding Publication Award”, 2011–2014.
- Program committee member for the Master in Mathematical and Computational Finance, 2007–2011.
- Member of the selection committee for the “INFORMS Computing Society Best Publication Award”, 2006.
- Member of the selection committee for the “INFORMS College on Simulation Outstanding Publication Award”, Jan. 2000–Dec. 2002 (Chair in 2002).
- Member of the Board of the “Centre de Recherches Mathématiques” in Montreal (1993–1997).
- Member of the *planning committee* of the Faculty of Arts and Sciences at the University of Montreal (1992–1995 and 2003–2007).
- Member of the Institute for Operations Research and the Management Sciences (INFORMS).
- Research and consulting contracts occasionally. Work done for (partial list): Le Barreau du Québec; Provost Transport Routier; Ogilvy Renault Avocats; Régie de l’Assurance Maladie du Québec; Bell Northern Research; Newbridge Networks; Énergie Atomique du Canada; ALCAN Aluminium; Brooks Automation (*Automod* simulation software); Rockwell Software (*Arena* simulation software); New South Wales Lotteries (Australia); Spielo Gaming; Alcatel Canada; Canadian Bank Note; SAS Corporation; Toshiba; Simul8; Loto-Québec; Inosim; The Mathworks (MATLAB software).

OTHER ACTIVITIES

- Sport activities: road cycling and cross-country skiing. Canadian champion in road cycling (by age groups) in 2000, 2001, and 2011. Second in 2002 and 2004. Quebec champion in road race in 1996, 2000, 2001, and 2003; in time trial in 2002, 2003, 2004, and 2005; and in criterium in 2011. Winner of America’s cup in 2000. Bronze medal in Canadian cross-country skiing championship (50 km) in 1994.
- Coach in Track and Field 1970–1992. Member of the Canadian team at Olympic games, World Championships, Commonwealth Games, etc.. Quebec’s track and field federation’s “coach of the year” in 1985 and 1992. Coach of the Barcelona Olympic games silver medalist Guillaume Leblanc (20 km walk) from 1973 to 1992.