CURRICULUM VITAE

JÁNOS D. PINTÉR

PERSONAL INFORMATION

Place of birth: Budapest, Hungary.
Date of birth: February 4, 1948.
Citizenship: Canadian and Hungarian.

EDUCATION AND PROFESSIONAL DEGREES

Degree	Field	Year	Institution
M.Sc.	Applied Mathematics, Operations Research *Summa cum laude*	1973	Eötvös University of Sciences (ELTE), Budapest, Hungary
Dr. Rer. Nat.	Applied Mathematics, Operations Research *Summa cum laude*	1977	Eötvös University of Sciences
Ph.D.	Probability Theory, Stochastic Optimization	1982	Moscow State (Lomonosow) University, Russia
D.Sc.	Mathematical Sciences	1999	Hungarian Academy of Sciences

LANGUAGES

- English: advanced, professional level. I have been working in various English speaking environments since 1987; I have been living in Canada since 1991, except when working abroad.
- Hungarian: native, professional level. I was born and educated in Hungary, and lived there for about 35 years.
- Russian: intermediate to advanced level. I wrote my Ph.D. thesis in Russian, worked and studied over two years full-time in Russia from 1978 to 1982. I still have good professional reading and fair speaking capability: these can be refreshed in a rather short time, if needed.
- Dutch, French, German, Turkish: fairly basic speaking, better reading capability in these languages.

CURRENT PRIMARY PROFESSIONAL AFFILIATION

President / Owner & Research Scientist, Pintér Consulting Services, Inc., Canada; since 1994
E-mail: janos.d.pinter@gmail.com Web: http://www.pinterconsulting.com

EMPLOYMENT EXPERIENCE

Years	Employment	Position
2009-2011	Özyeğin University, Istanbul, Turkey	Visiting Professor
2008-2009	Bilkent University, Ankara, Turkey	Visiting Associate Professor
1994– Present	Pintér Consulting Services, Inc., Canada	President & Research Scientist
1994–2007	Dalhousie University, Halifax	Adjunct Professor
1993–1994	Atlantic Industrial Research Institute, Halifax	Senior Research Associate
1991–1993	Dalhousie University, Halifax	Associate Professor and Technical Project Director
1990–1991	Institute for Inland Water Management and	Senior Research Scientist

	Wastewater Treatment, Lelystad, Netherlands	
1989–1990	Institute of Transport Sciences, Budapest, Hungary	Scientific Advisor
1988–1989	Water Resources Research Centre, Budapest	Scientific Advisor
1987	Technical University, Delft, Netherlands	Visiting Research Fellow
1983–1986	Water Resources Research Centre, Budapest	Scientific Advisor
1981–1983	Eötvös University of Sciences, Budapest	Senior Research Associate and Lecturer
1980–1981	Computing Center for Universities and University of Economics, Budapest	Senior Research Associate and Lecturer
1979–1980	International Institute of Control Sciences Moscow, Russia	Senior Research Associate
1973–1979	Computing Center for Universities and University of Economics, Budapest	Research Associate and Lecturer

RESEARCH EXPERIENCE

Summary

Development, computer based implementation, and application of optimization models and algorithms. I have been developing, implementing and using optimization techniques – often in research team environments – to analyze and to solve a broad range of scientific, engineering, econometric and financial decision problems. The professional software products developed by myself with various partners are in use worldwide at hundreds of academic, business, government and research organizations, including major international companies and some of the most prominent universities of the world.

Specific Areas of Interest

- Nonlinear (global and local) optimization: theory, algorithm development and implementation
- Decision making under uncertainty (stochastic systems analysis and optimization): theory, algorithm development and implementation
- Development of computer-based, customized decision support systems
- Engineering, econometric, financial, and scientific applications of the methodology summarized above

TEACHING EXPERIENCE

Undergraduate Courses

- Business Accounting for Engineers
- Calculus (both for Business and Engineering students)
- Differential Equations
- Engineering Economics
- Introduction to Business Statistics
- Introduction to Computer Programming
- Introduction to Operations Research
- Operations Research in Finance
- Probability Theory and Statistics

Graduate Courses

- Nonlinear (Global and Local) Optimization: Theory, Models, Algorithms, Software, and Applications
- Operations Research Applications: Engineering, Econometric, Financial, and Scientific Case Studies
- Stochastic Optimization: Theory, Models, Algorithms, Software, and Applications

Supervision, Examination and Advisory Activity Related to M.Sc. and Ph.D. Studies

- Global Optimization: Theory, Algorithms, and Applications
- Stochastic Optimization: Theory, Algorithms, and Applications
- Integrated Decision Support Systems: Model Development and Applications
- Industrial and Environmental Systems Analysis and Management Applications

Short Courses, Tutorials and Workshops for Professional Attendees

- Nonlinear (Global and Local) Optimization − Theory, Models, Algorithms, Software Development, with Engineering, Econometric, Financial, and Scientific Applications

An illustrative list of (mostly invited) lectures is provided later on in this document.

SOFTWARE DEVELOPMENT EXPERIENCE

Currently active professional software development partnerships have been established between Pintér Consulting Services, Inc. (PCS) and the following companies: AMPL LLC, GAMS Development Corporation, Lahey Computer Systems, Maplesoft, Maximal Software, Paragon Decision Technologies, TOMLAB Optimization, Wolfram Research, and others. Our proprietary optimization software products include the following (listed in the order of release):

- LGO solver system for global and local nonlinear optimization with a text I/O interface, for use with C/C++/FORTRAN and (upon request) with other compilers; distributed by PCS
- LGO solver system with a Windows GUI, to use in conjunction with compilers; distributed by PCS
- GAMS/LGO, in cooperation with the GAMS Development Corporation
- MathOptimizer for Mathematica, in cooperation with Frank Kampas, Ph.D.; distributed by PCS and by Wolfram Research
- MathOptimizer Professional (Mathematica/LGO) for Mathematica, with Frank Kampas, Ph.D.; distributed by PCS and by Wolfram Research
- TOMLAB/LGO for MATLAB, in cooperation with TOMLAB Optimization
- Maple Global Optimization Toolbox, in cooperation with Maplesoft
- MPL/LGO, in cooperation with Maximal Software
- AIMMS/LGO solver engine, in cooperation with Paragon Decision Technologies
- AMPL/LGO, in cooperation with AMPL LLC; distributed by PCS
- Excel/LGO, a direct solver link to Excel, developed in cooperation with Frank Kampas, Ph.D. and Bariş Cem Şal, B.Sc.; distributed by PCS
- MATLAB/LGO, a direct solver link to MATLAB, developed in cooperation with Frank Kampas, Ph.D. and Bariş Cem Şal, B.Sc.; distributed by PCS

Website links to the listed software products are available at http://www.pinterconsulting.com.

RESEARCH AND EDUCATIONAL IMPACT

In numerous cases, M.Sc. and Ph.D. level studies, as well as more advanced research studies, have been based upon – or have been directly related to – my contributions (books, articles, presentations, software) to the fields of stochastic and global optimization. Such studies have been conducted by researchers and students, e.g., in the following countries: Australia, Austria, Canada, Finland, France, Germany, Greece, Hungary, Indonesia, Iceland, Italy, Japan, Netherlands, New Zealand, Russia, Turkey, United Kingdom, United States. The number of independent references (scholarly citations by other researchers) to my work and publications is in the order of thousands. An illustrative collection of topical research articles and book/software reviews is available upon request.

SELECTED FURTHER PROFESSIONAL ACTIVITIES AND ACHIEVEMENTS

- Author and editor of several books; please see http://www.pinterconsulting.com/b.html and the subsequent publications section of this document
- Author and co-author of nearly 200 book chapters, articles, proceedings volume contributions, and technical reports. A categorized listing is provided later in this document
- Editorial board member: *Journal of Global Optimization* (since 1991); *GAMS Global World and GAMS Performance World* web-forums (since 2002); *Journal of Applied Mathematics & Decision Sciences* (since 2003; now published as *Advances in Decision Sciences*); *Algorithmic Operations Research* (since 2004); *International Journal of Modeling, Identification and Control* (between 2005 and 2009)
- Author, contributing author, referee, editor, technical editor, and reviewer of books. The list of publishers that I have been working with includes CRC Press / Taylor and Francis, Duxbury / Thomson, Elsevier, Kluwer Academic Publishers, McGraw-Hill, Pergamon Press, Springer Science, Wiley, World Scientific
- Author and reviewer serving more than 30 professional journals (as of today)
- Invited lecturer, workshop or course presenter, visiting scholar, conference and meeting participant at universities, research institutions, industrial organizations, and conferences in over 30 countries of Europe and the Middle East, the Americas, Asia and the Pacific Region: an illustrative list of lectures is presented later on in this document
- Operations Research Committee Member, Hungarian Academy of Sciences, 1983–1993
- Project Leader, Scientific Research Fund, Hungarian Academy of Sciences, 1990–1994
- Canadian International Development Agency (CIDA) Project Lecturer, Beijing University, China, 1993
- CIDA Project Advisor and Lecturer, Environmental Studies Centers Development Project, Indonesia, 1994-1995
- Winner of the 2000 INFORMS Computing Society Prize
- CORS Traveling Speaker since 2002
- INFORMS Traveling Speaker since 2003
- Global Optimization Vice-Chair, INFORMS Optimization Society, 2002-2004
- EUROPT Managing Board Member, since 2010
- Operations Research Panel reviewer, National Science Foundation, USA (on demand)
- Project advisor and consultant to government and private organizations (on demand)

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

Past and present society memberships include the following:

- Canadian Operational Research Society

- EUROPT
- Hungarian Operations Research Society
- Institute for Operations Research and the Management Sciences
- Mathematical Programming Society
- Society for Industrial and Applied Mathematics

SELECTED PROFESSIONAL AWARDS AND GRANTS

- United Nations Development Program Fellowship, USA, 1976
- Ph.D. program fellowship by the Hungarian Academy of Sciences, Moscow State University, 1978-1982
- Research Fellowship, Delft University of Technology, 1987
- Hungarians Scientific Research Fund grants for scientific research, 1991-2004
- Visiting Scholar, Wolfram Research, USA, 1998
- INFORMS Computing Society Prize for Research Excellence, USA/International, 2000
- Industrial R&D grants for scientific research, algorithm and professional software product development, National Research Council of Canada, 1999 and 2002
- Visiting Professor, Central Queensland University, Australia, 2001
- Visiting Research Fellow, University of Ballarat, Australia, 2002, 2003, 2004
- Numerous other visiting grants (lecture, workshop, course invitations) received from over 30 countries of the world

Further details and professional references are available upon request.

LIST OF PUBLICATIONS

JÁNOS D. PINTÉR

Dissertations

1. *A Stochastic Programming Problem and its Solution by Random Search.* Dr. Rer. Nat. Dissertation. Eötvös University of Sciences, Budapest, 1975. (In Hungarian)
2. *Stochastic Methods for Solving Multiextremal, Non-smooth Problems in Stochastic Programming.* Ph.D. Dissertation, Department of Probability Theory, Lomonosow (Moscow State) University, Moscow, 1982. (In Russian)
3. *Global Optimization – Algorithms, Implementations, and Applications.* D.Sc. Dissertation, Hungarian Academy of Sciences, Budapest, 2000. (Hungarian thesis summary based on the monograph *Global Optimization in Action*, Kluwer Academic Publishers, 1996)

Books

1. *Stochastic Optimization Procedures*. Hungarian State Textbook Publishers, 1984. (In Hungarian)
2. *Global Optimization in Action – Continuous and Lipschitz Optimization: Algorithms, Implementations and Applications.* Kluwer Academic Publishers, Dordrecht, 1996.
3. *Computational Global Optimization in Nonlinear Systems – An Interactive Tutorial.* (Includes software demo application programs.) Lionheart Publishing, Atlanta, GA, 2001.
4. *Global Optimization with Maple: An Introduction with Illustrative Examples*. An electronic book published by Pintér Consulting Services, Canada, 2006.

Forthcoming Books

1. *Global Optimization in Action* (2nd Edition). Springer Science + Business Media, New York.
2. *Optimization with Maple for Engineers and Scientists*. CRC Press / Taylor and Francis.
3. *Optimization with Mathematica: Scientific, Engineering, and Economic Applications.* Co-author: F.J. Kampas. (Publisher to be decided)

Edited Books

1. *Theory of Global Random Search.* Author: Zhigljavsky, A.A.; Technical Editor: Pintér, J. Kluwer Academic Publishers, Dordrecht, 1991.
2. *Global Optimization: Scientific and Engineering Case Studies.* Springer Science + Business Media, New York, 2006.

Refereed Book Chapters

1. Stochastic optimization methods for solving mathematical programming problems. In: Mogyoródi, J., Vincze, I. and Wertz, W., eds. *Statistics and Probability*, pp. 271–282. Publishing House of the Hungarian Academy of Sciences, Budapest, 1984.
2. Decision models in water quality management. In: Katona, E., ed. *Handbook of Water Quality Management*, pp. 152–159. AQUA Kiadó, Budapest, 1989. (In Hungarian)
3. Lipschitzian global optimization: Some prospective applications. In: Floudas, C.A. and Pardalos, P.M., eds. *Recent Advances in Global Optimization*, pp. 399–432. Princeton University Press, Princeton, New Jersey, 1992.

4. LGO: A program system for continuous and Lipschitz optimization. In: Bomze, I.M., Csendes, T., Horst, R. and Pardalos, P.M., eds. *Developments in Global Optimization*, pp. 183-197. Kluwer Academic Publishers, Dordrecht, 1997.
5. A model development system for global optimization. In: De Leone, R., Murli, A., Pardalos, P.M. and Toraldo, G., eds. *High Performance Algorithms and Software in Nonlinear Optimization*, pp. 301-314. Kluwer Academic Publishers, Dordrecht, 1998.
6. Extremal energy models and global optimization. In: Laguna, M. and González-Velarde, J-L., eds. *Computing Tools for Modeling, Optimization and Simulation,* pp. 145-160. Kluwer Academic Publishers, Dordrecht, 2000.
7. Continuous global optimization: Software. Invited contribution to the *Encyclopedia of Optimization* (Floudas, C. A. and Pardalos, P.M., eds.) Kluwer Academic Publishers, Dordrecht, 2001.
8. Continuous global optimization: Illustrative applications. Invited contribution to the *Encyclopedia of Optimization* (Floudas, C. A. and Pardalos, P.M., eds.) Kluwer Academic Publishers, Dordrecht, 2001.
9. Global optimization in the analysis and management of environmental systems. Invited contribution to the *Encyclopedia of Optimization* (Floudas, C. A. and Pardalos, P.M., eds.) Kluwer Academic Publishers, Dordrecht, 2001.
10. Global optimization: Software, test problems, and applications. In: Pardalos, P. M. and Romeijn, H. E., eds. *Handbook of Global Optimization, Volume 2*, pp. 515-569. Kluwer Academic Publishers, Dordrecht, 2002.
11. O.R. model development and optimization with Mathematica. In: Golden, B., Raghavan, S., and Wasil, E., eds. *The Next Wave in Computing, Optimization, and Decision Technologies,* pp. 285-302. Springer Science + Business Media, New York, 2005. Co-author: Kampas, F.J.
12. Nonlinear optimization in modeling environments: software implementations for compilers, spreadsheets, modeling languages, and integrated computing systems. In: V. Jeyakumar and A.M. Rubinov, eds. *Continuous Optimization: Current Trends and Applications*, pp. 147-173. Springer Science + Business Media, New York, 2005.
13. MathOptimizer Professional: Key features and illustrative applications. In: Liberti, L., and Maculan, N., eds. *Global Optimization: From Theory to Implementation*, pp. 263-279. Springer Science + Business Media, New York, 2006. Co-author: Kampas, F.J.
14. Preface. In: Pintér, J. D., ed. *Global Optimization: Scientific and Engineering Case Studies*, pp. ix-xxi. Springer Science + Business Media, New York, 2006.
15. Determination of a distributed feedback laser's field solution using global optimization. In: Pintér, J. D., ed. *Global Optimization: Scientific and Engineering Case Studies*, pp. 181-212. Springer Science + Business Media, New York, 2006. Co-authors: Isenor, G. and Cada, M.
16. Optimization of radiation therapy dose delivery with multiple static collimation. In: Pintér, J. D., ed. *Global Optimization: Scientific and Engineering Case Studies*, pp. 461-485. Springer Science + Business Media, New York, 2006. Co-authors: Tervo, J., Kolmonen, P., and Lyyra-Laitinen, T.
17. Computational global optimization. In: *TutORials in Operations Research*, Published by the Institute for Operations Research and the Management Sciences (INFORMS), Hanover, MD, 2007. Co-author: Lasdon, L.S.
18. Global optimization in practice: State-of-the-art and perspectives. In: Gao, D. Y. and Sherali, H. D., eds., *Advances in Applied Mathematics and Global Optimization*, pp. 377-404. Springer Science + Business Media, New York, 2009.
19. Software development for global optimization. In: Pardalos, P.M. and T. F. Coleman, eds. *Global Optimization: Methods and Applications,* pp. 183-204. Fields Institute Communications Volume 55. Published by the American Mathematical Society, Providence, RI, 2009.

Refereed Journal Publications

1. Maximal deviation of empirical pdf-sequences: Application to a multi-period reliability type inventory model. *Alkalmazott Matematikai Lapok* 1 (1975) 189-195. (In Hungarian)
2. Technico-economic water quality model of the Sajó river. *Hidrológiai Közlöny* 57 (1977) 27-37. Co-authors: Bora, Gy., Hock, B., Mucsy, Gy., Réczey, G. and Röszler, K. (In Hungarian)
3. Water resources management model for the Sajó region. *Vizügyi Közlemények* (1977) 3, 418-426. (In Hungarian)
4. Random search procedures: Convergence and numerical efficiency. *Alkalmazott Matematikai Lapok* 4 (1978) 197-228. (In Hungarian)
5. Stochastic models for regional water quality management. *Hidrológiai Közlöny* 60 (1980) 364-373. (In Hungarian)
6. On a method of random search for unconstrained minimization. *Avtomatika i Telemekhanika* (1980) No. 12, 76-85. (In Russian; English translation in: *Automation and Remote Control* (1980) No. 12.)
7. Hybrid procedures for solving non-smooth stochastic problems. *Alkalmazott Matematikai Lapok* 7 (1981) 83-97. (In Hungarian)
8. Stochastic methods for solving optimization problems. *Alkalmazott Matematikai Lapok* 7 (1981) 217-252. (In Hungarian)
9. Hybrid procedures for solving non-smooth constrained stochastic optimization problems. *Vestnik MGU, Ser. VMK* (1982) 1, 39-49. (In Russian; English translation in: *Moscow University Computational Mathematics and Cybernetics* (1982) No. 1.)
10. An improved Chebyshev inequality for estimating function values by Monte Carlo procedures. *Alkalmazott Matematikai Lapok* 9 (1983) 93-104. (In Hungarian)
11. Convergence properties of stochastic optimization procedures. *Optimization* 15 (1984) 405-427.
12. A modified Bernstein-technique for estimating noise-perturbed function values. *Calcolo* 22 (1985) 241-247.
13. A note on the frequency analysis and the statistical extrema of maximal precipitation. *Vizügyi Közlemények* 67 (1985) 348-353. (In Hungarian)
14. Globally convergent methods for n-dimensional multiextremal optimization. *Optimization* 17 (1986) 187-202.
15. Extended univariate algorithms for n-dimensional global optimization. *Computing* 36 (1986) 91-103.
16. Multiextremal optimization for calibrating water resources models. *Environmental Software* 1 (1986) 98-105. Co-authors: Szabó, J. and Somlyódy, L.
17. Global optimization on convex sets. *Operations Research Spektrum* 8 (1986) 197-202.
18. Water quality management: Methodology and applications. *Foundations of Control Engineering* 11 (1986) 177-189. Co-author: Somlyódy, L.
19. Global optimization procedures and their applications in water resources modelling. *Vizügyi Közlemények* 68 (1986) 520-529. (In Hungarian) Co-author: Szabó, J.
20. Optimization of regional water quality monitoring strategies. *Water Science and Technology* 19 (1987) 721-727. Co-author: Somlyódy, L.
21. A conceptual optimization framework for regional acidification control. *Systems Analysis, Modelling and Simulation* 4 (1987) 213-226.
22. Branch-and-bound algorithms for solving global optimization problems with Lipschitzian structure. *Optimization* 19 (1988) 101-110.
23. Deterministic approximations of probability inequalities. *ZOR – Methods and Models of Operations Research*, Series Theory 33 (1989) 219-239.

24. Optimization in risk management. *Civil Engineering Systems* 6 (1989) 122-128. Co-author: Cooke, R.
25. Environmental risk analysis and management. *Hidrológiai Közlöny* 69 (1989) 264-268. (In Hungarian)
26. Solving nonlinear equation systems via global partition and search: Some experimental results. *Computing* 43 (1990) 309-323.
27. On the convergence of adaptive partition algorithms in global optimization. *Optimization* 21 (1990) 231-235.
28. Risk management of accidental water pollution: An illustrative application. *Water Science and Technology* 22 (1990) 265-274. Co-authors: Benedek, P. and Darázs, A.
29. Globally optimized calibration of environmental models. *Annals of Operations Research* 25 (1990) 211-222.
30. Adaptive partition strategies for solving global optimization problems. *Alkalmazott Matematikai Lapok* 15 (1990/1991) 329-352. (In Hungarian)
31. Stochastic modelling and optimization for environmental management. *Annals of Operations Research* 31 (1991) 527-544.
32. Global convergence revisited: Reply to A. Zilinskas. *Computing* 46 (1991) 87-91.
33. Set partition by globally optimized cluster seed points. *European Journal of Operational Research* 51 (1991) 127-135. Co-author: Pesti, G.
34. An application of Lipschitzian global optimization to product design. *Journal of Global Optimization* 1 (1991) 389-401. Co-author: Hendrix, E.M.T.
35. Convergence qualification of partition algorithms in global optimization. (Revised and extended version.) *Mathematical Programming* 56 (1992) 343-360.
36. The impact of accelerating tools on the interval subdivision algorithm for global optimization. *European Journal of Operational Research* 65 (1993) 314-320. Co-author: Csendes, T.
37. Environmental model calibration under different problem specifications: An application to the model SED. *Ecological Modelling* 68 (1993) 1-19. Co-author: van der Molen, D.T.
38. A new interval method for locating the boundary of level sets. *International Journal of Computer Mathematics* 49 (1993) No. 1-2, 53-59. Co-author: Csendes, T.
39. An intelligent decision support system for assisting industrial wastewater management. *Annals of Operations Research* 58 (1995) 455-477. Co-authors: Fels, M, Lycon, D.S., Meeuwig, D.J., and Meeuwig, J.W.
40. Continuous and Lipschitz global optimization: Algorithms and applications. *Szigma* XXVII (1996) 3, 71-104. (In Hungarian)
41. Optimized design of wastewater treatment systems: Application to the mechanical pulp and paper industry. I. Design and cost relationships. *The Canadian Journal of Chemical Engineering* 75 (1997) 437-451. Co-authors: Fels, M. and Lycon, D.S.
42. Automatic model calibration applying global optimization techniques. *Environmental Modeling and Assessment* 3 (1998) 117-126. Co-authors: Finley, J.R. and Satish, M.G.
43. Globally optimized spherical point arrangements: Model variants and illustrative results. *Annals of Operations Research* 104 (2001) 213-230.
44. Finding elliptic Fekete points sets: Two numerical solution approaches. (Revised version.) *Journal of Computational and Applied Mathematics* 130 (2001) No. 1-2, pp. 205-216. Co-authors: Stortelder, W.J.H. and de Swart, J.J.B.
45. An optimization-based approach to the multiple static delivery technique in radiation therapy. (Revised version.) *Annals of Operations Research* 119 (2003) 205-227. Co-authors: Tervo, J., Kolmonen, P., Lyyra-Laitinen, T., and Lahtinen, T.
46. A global optimization approach to laser design. *Optimization and Engineering* 4 (2003) (3) 177-196. Co-authors: Isenor, G. and Cada, M.

47. Globally optimized calibration of nonlinear models: techniques, software, and applications. *Optimization Methods and Software* 18 (2003) (3) 335-355.
48. Comparative assessment of algorithms and software for global optimization. *Journal of Global Optimization* 31 (2005) 613-633. Co-authors: Khompatraporn, C. and Zabinsky, Z.B.
49. Nonlinear optimization in Mathematica with MathOptimizer Professional. *Mathematica in Education and Research* 10 (2005) 2, 1-18. Co-author: Kampas, F.J.
50. Configuration analysis and design by using optimization tools in Mathematica. *The Mathematica Journal* 10 (2006) 1, 128-154. Co-author: Kampas, F.J.
51. Global Optimization Toolbox for Maple: An introduction with illustrative applications. *Optimization Methods and Software* 21 (2006) 565-582. Co-authors: Linder, D. and Chin, P.
52. Nonlinear optimization with GAMS/LGO. *Journal of Global Optimization* 38 (2007) 79-101.
53. Integrated production system optimization using the Lipschitz Global Optimizer and the Discrete Gradient Method. *Journal of Industrial and Management Optimization* 3 (2007) 2, 257-277. Co-authors: Mason, T.L., Emelle, C., van Berkel, J., Bagirov, A.M., and Kampas, F.J.
54. Integrated software tools for the OR/MS classroom. *Algorithmic Operations Research* 3 (2008) 82–91. Co-authors: Castillo, I. and Lee, T.
55. Solving circle packing problems by global optimization: numerical results and industrial applications. *European Journal of Operational Research* 191 (2008) 786–802. Co-authors: Castillo, I. and Kampas, F.J.
56. Model development and optimization in interactive computing environments. *Central European Journal of Operations Research* 16 (2008) 165–178.
57. A global optimization study on the devolatilisation kinetics of coal, biomass and waste fuels. *Fuel Processing Technology* 90 (2009) 762-769. Co-authors: G. Pantoleontos, P. Basinas, G. Skodras, P. Grammelis, S. Topis, G.P. Sakellaropoulos.
58. Benchmarking nonlinear optimization software in technical computing environments: Global optimization in *Mathematica* with *MathOptimizer Professional. TOP* (An Official Journal of the Spanish Society of Statistics and Operations Research) 18 (2010) 1. DOI 10.1007/s11750-011-0209-5. Co-author: Kampas, F.J.
59. A computational geometric / information theoretic method to invert physics-based MEC models attributes for MEC discrimination. Co-authors: Deschaine, L.M. and Nordin, P. *Mathematical Machines and Systems* (2011) No 2, pp. 50-61.(*Mathematical Machines and Systems* is published by the Institute of Mathematical Machines and Systems Problems of the National Academy of Sciences of Ukraine.)
60. Calibrating artificial neural networks by global optimization. *Expert Systems with Applications* 39 (2012) 25–32. DOI: 10.1016/j.eswa.2011.06.050.
61. *MathOptimizer*: A nonlinear optimization package for *Mathematica* users. Co-author: Kampas, F.J. Submitted for publication.
62. Decision support for complex planning challenges: combining expert systems, machine learning, information theory, physical modelling, and optimization. Co-authors: Deschaine, L.M. and Nordin, P. Submitted for publication.
63. Development and calibration of currency market strategies by global optimization. Co-author: Çağlayan, M.O. Submitted for publication.
64. Experimental design integrated with the LGO solver suite for resource-constrained optimization. Co-author: Horváth. Z. Submitted for publication.

Conference Proceedings

1. Mathematical model for water quality management in the Sajó river, pp. 400–431. In: Deininger, R.A., ed. *Proc. WHO Seminar on Systems Analysis in Water Quality Management*

(Budapest, 1975); University of Michigan Press, Ann Arbor, 1977. Co-authors: Bora, Gy., Francia, L., Kulcsár, D. and Réczey, G.

2. On the maximal distance between two series of empirical distribution functions, with application to an inventory problem. *Methods of Operations Research* 29 (1978) 623–636.
3. Some methodological aspects of optimization techniques in water quality management. In: *Proc. WHO Seminar on Water Quality Management* (Budapest, 1977), pp. 164–171. Water Resources Management Institute, Budapest, 1978.
4. On the convergence and efficiency of random search optimization. *Methods of Operations Research* 33 (1979) 347–362.
5. On a stochastic model of reservoir system sizing. In: Iracki, K., Malanowski, K. and Walukiewicz, S., eds. *Proceedings of the 9th IFIP Conference on Optimization Techniques* (Warsaw, 1979), pp. 546–558. Lecture Notes in Control and Information Sciences 23, Springer, Berlin.
6. Stochastically combined optimization procedures, their convergence and numerical performance. *Methods of Operations Research* 43 (1981) 143–150.
7. Stochastic procedures for solving optimization problems. *Methods of Operations Research* 45 (1983) 135–144.
8. Multiextremal (global) optimization algorithms for engineering applications. In: *Proc. Fourth International Conference on Engineering Software* (ENGSOFT '85, Kensington, 1985), pp. 7–17 to 7–25. Springer, Berlin, 1985. Co-author: Szabó, J.
9. Global optimization algorithms: An axiomatic approach. In: *Proc. 30th Scientific Colloquium, Series E*, pp. 117–120. *Technical University of Ilmenau*, 1985.
10. Stochastic models and methods for the design and operation of water resources systems. In: *Proc. International Conference in Hydrology and Hydraulics* (Phenjan, 1985). (In Russian.)
11. Contributions to the methodology of stochastic optimization. In: *Proc. IFIP Workshop on Stochastic Programming* (Gargnano, Sept. 1983). Lecture Notes in Control and Information Sciences 76, Springer, Berlin, 1986.
12. A stochastic lake eutrophication management model. In: Arkin, V.I., Shiriaev, A.N. and Wets, R., eds. *Stochastic Optimization (Kiev, 1984)*, pp. 501-512. Lecture Notes in Control and Information Sciences 81, Springer-Verlag, Berlin, 1986. Co-author: Somlyódy, L.
13. Sampling strategy optimization for regional water quality monitoring. In: *Proc. 5th IFAC/IFORS Conference on Dynamic Modelling and Control of National Economies.* (Budapest, June 1986.) Co-author: Somlyódy, L.
14. Global optimization algorithms: Theory and some applications. In: Prékopa, A. Straziczky, B. and Szelezsán, J., eds. *Proc. 12th IFIP Conference on Systems Modelling and Optimization* (Budapest, 1985), pp. 704-713. Lecture Notes in Control and Information Sciences 84, Springer, Berlin, 1986. Co-author: Szabó, J.
15. Estimating averages and detecting trends in water quality data. In: *Proc. 2nd Scientific Assembly of the International Association for Hydrologic Sciences* (Budapest, 1986); *IAHS Publications* 157 (1986) 61–69. Co-authors: Somlyódy, L., Koncsos, L., Hanácsek, I. and Juhász, I.
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23. Optimal load distribution. In: *Advances in Military Load Carriage. Proc. TTCP-TLG-8 and TCIEM Workshop* (Queen's University, Kingston, Ontario, October 1996), pp. 26-27. Co-author: Pelot, R.P.
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25. An application development system for global optimization. Invited tutorial presentation. Extended abstract in: *Proc. IASTED Conf. MIC'98* (Grindelwald, Switzerland, February 18-20, 1998.)
26. Computational global optimization: Models, algorithms and applications. Invited tutorial presentation. In: Mohammadian, M., ed. *Concurrent Systems Engineering Series* 55 (*Proc. CIMCA'99*, Vienna, Febr. 17-19, 1999); pp. 1-10. IOS Press, Amsterdam, 1999.
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32. Global optimization in Mathematica: a comparative numerical study. *Proceedings of the 2005 Wolfram Technology Conference* http://library.wolfram.com/infocenter/Conferences/5824/ Co-author: Kampas, F.J.
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14. Model calibration: Problem statement, solution method and implementation manual. Research Report 90.024, *National Institute for Inland Water Management and Waste Water Treatment*, Lelystad, 1990.
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18. Calibration of the model system DELWAQ-IMPAQT for the lake Ketelmeer. *Research Report 91.001, National Institute for Inland Water Management and Waste Water Treatment,* Lelystad, 1991. Co-authors: ten Hulscher, D. and Bak-Eijsberg, C.
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25. *Environmentally Sensitive Investment System (ESIS) Project – Final Report. School of Business Administration, and School for Resource and Environmental Studies, Dalhousie University,* Halifax, 1993. (185 pages)
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41. An optimization-based approach to the multiple static delivery technique in radiation therapy. *Research Report A/1999/4, Department of Computer Science and Applied Mathematics, University of Kuopio,* Finland. Co-authors: Tervo, J., Kolmonen, P., Lyyra-Laitinen, T., and Lahtinen, T.
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44. The potentials of Mathematica in Operations Research and related applications. *Mathematica Information Center* http://library.wolfram.com/infocenter/Articles/4896/, 2003.
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51. The Maple Global Optimization Toolbox. A white paper and detailed application examples downloadable from Maplesoft's Product Pages; with further links. http://www.maplesoft.com/products/toolboxes/globaloptimization/index.aspx.
52. Nonlinear systems modeling and optimization: software implementations and applications. *Modeling and Simulation* 3 (2004) 2, 17-18.

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54. Getting Started with MathOptimizer Professional, http://library.wolfram.com/infocenter/TechNotes/6201/, 2004. Co-author: Kampas, F.J.
55. Packing Equal-Size Circles in a Triangle, http://library.wolfram.com/infocenter/TechNotes/6202/, 2005. Co-author: Kampas, F.J.
56. AIMMS/LGO Solver Engine: A Brief Introduction and User's Guide. http://www.aimms.com/aimms/product/solvers/lgo.html, 2005.
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61. Enhancement of optimization capability in TacTool using the Lipschitz Global Optimizer (LGO) program. *Technical Report, DRDC Atlantic Region*, Dartmouth, NS, 2006. Co-authors: Gammon, M.A. and Schwartz, R.
62. Driving Innovation: How mathematical modeling and optimization increase efficiency and productivity in vehicle design. *Technical Report, Maplesoft*, Waterloo, ON, 2007. Co-authors: Goossens, P., McPhee, J., Schmitke, C., and Stahl, H.
63. Computational global optimization: State-of-the-art and perspectives. *ORMS Today* (2007) October issue.

Invited Book and Software Reviews

1. *Mathematical Programming Glossary on the World Wide Web*, by Greenberg, H.J. *Optima* 53 (1997) 9-10.
2. *Developments in Global Optimization*, by Bomze, I.M., Csendes, T., Horst, R. and Pardalos, P.M., eds. *Optima* 57 (1998) 12-13.
3. *Meta-Heuristics*, by Osman, I.H. and Kelly, J.P., eds. *Journal of Global Optimization* 15 (1999) 105-107.
4. *Parallel Optimization*, by Censor, Y. and Zenios, S.A. *Journal of Global Optimization* (2000) 107-108.
5. *Meta-Heuristics: Advances and Trends in Local Search Paradigms for Optimization*, by Voss, S., Martello, S., Osman, I.H., and Roucairol, C., eds. *Interfaces* 30 (2000) 94-95.
6. *Operations Research: A Practical Introduction*, by Carter, M.W. and Price, C.C. *Interfaces* 32 (2002) 96-97.
7. *Interactive Operations Research with Maple*, by Parlar, M. *Interfaces* 32 (2002) 99-101.
8. *Handbook of Applied Optimization*, by Pardalos, P.M. and Resende, M.G.C., eds. *Optimization Methods and Software* 21 (2006) 4, 667-676.
9. *Principles of Object-Oriented Modeling and Simulation with Modelica 2.1*, by Fritzson, P. *Mathematica in Education and Research* 11 (2006) 4, 498-505.
10. *Introduction to Applied Optimization*, by Diwekar, U.M. *European Journal of Operational Research* 177 (2007) 646-648.

SELECTED CONFERENCE PRESENTATIONS AND SHORT COURSES

JÁNOS D. PINTÉR

1. CORS Traveling Speaker: invited talks and tutorials at CORS Annual Meetings (over 20 presentations since 1994)
2. INFORMS Speaker: invited talks and tutorials at INFORMS Annual Meetings (over 50 presentations since 1996)
3. Web Seminars for Maplesoft (over 10 presentations since 2004)
4. Global Optimization Workshop. Organized by the Australian Institute for Operational Research, Melbourne, Vic., Australia, July 2001
5. Global Optimization Software. Invited CORS Speaker, MOPTA 2002, McMaster University, Hamilton, ON, Canada, August 2002
6. Global Optimization Workshop, University of South Australia, Adelaide, SA, Australia, November 2002
7. Global Optimization Workshop, University of Ballarat, Vic., Australia, December 2002
8. Global Optimization Workshop, INFORMS Texas Chapter, San Antonio, TX, USA, March 2003
9. Global Optimization Lecture Series, Trinity University, San Antonio, TX, USA, March 2003
10. Mathematica Developer Conference, Champaign, IL, USA, April 2003; invited presentation
11. Global Optimization Lecture Series, Tilburg University, Netherlands, April 2003
12. GAMS Global Optimization Workshop, Washington, DC, USA, September 2003
13. ASTC Global Optimization Workshop, Arlington, VA, USA, April 2004
14. Operations Research International Conference, Tilburg University, Netherlands, September 2004; invited semi-plenary presentation
15. Global Optimization Workshop, Candiensten, Amsterdam, Netherlands, September 9-10, 2004
16. Global Optimization with Maple, Lectures sponsored by Maplesoft, in Aachen, Germany; Stuttgart, Germany; and Zurich, Switzerland; September 2004
17. MathOptimizer Professional. Invited presentation, Mathematica Developer Conference, Champaign, IL, USA, October 2004
18. Global Optimization Lecture Series, UANL, Monterrey, Mexico, November 1-12, 2004
19. Computational Global Optimization. Invited presentation, IW04 Conference, University of Melbourne, Melbourne, Vic., Australia, December 6, 2004
20. Global Optimization Tutorial. Invited presentation, ICOTA 2004, University of Ballarat, Ballarat, Vic., Australia, December 8, 2004
21. Global Optimization Workshop, Annapolis, MD, USA, January 4, 2005
22. Global Optimization Workshop. Invited presentation series, Shell International Exploration and Production, Rijswijk, The Netherlands, April 11-15, 2005
23. Maplesoft Annual Conference, Waterloo, ON, Canada, July 17-21, 2005; invited speaker
24. Conference on Complementarity, Duality, and Global Optimization in Science and Engineering, Virginia Tech, Blacksburg, VA, USA, August 15-17, 2005; invited semi-plenary presentation
25. Applied Nonlinear Optimization Workshop, DRDC, Dartmouth, NS, Canada, October 12-14, 2005
26. Applied Nonlinear Optimization Lecture Series, University of Girona, Spain, April 24-28, 2006

27. Computational Global Optimization: Software Development and Advanced Applications, 21st European Conference on Operational Research, University of Iceland, Reykjavik, July 2-5, 2006; invited semi-plenary talk, and several other presentations
28. Global Optimization: Software Development and Advanced Applications, Fields Institute, Toronto, ON, Canada, October 3, 2006; invited presentation
29. Optimization with Maple, Atlantic Optimization Days, Fredericton, NB, Canada, October 5-6, 2006; invited presentation
30. INFORMS Annual Meeting, Pittsburgh, PA, USA, November 5-8, 2006; invited presentation in the "*Great Unsolved Problems in OR*" session series, and several other lectures
31. Global Optimization Course: Models, Algorithms, Software, and Applications, University of Jyvaskyla, Finland, March 12-16, 2007
32. Tekes-MASI Global Optimization Workshop, Helsinki School of Economics, Finland, March 19-20, 2007
33. Global Optimization Workshop, Shell International Exploration and Production, Rijswijk, The Netherlands, March 22-23, 2007
34. Global Optimization Course: Models, Algorithms, Software, and Applications, Széchenyi University, Győr, Hungary, March 26-28, 2007
35. Global Optimization with Maple: An Introduction with Illustrative Examples, and Global Optimization in Practice: State-of-the-Art and Perspectives; University of Saskatchewan and Saskatchewan CORS Section, Saskatoon, SK, Canada, April 19-20, 2007, invited presentations
36. Workshop on Global Optimization: Methods and Applications, Fields Institute, Toronto, ON, Canada, May 11-12, 2007; invited presentation
37. Nonlinear (Global and Local) Optimization in Integrated Computing Systems, CORS National Meeting, London, ON, Canada, May 13-16, 2007; invited tutorial and other talks
38. Modeling and Optimizing Nonlinear Systems in Integrated Computing Environments, INFORMS International Meeting, Rio Grande, Puerto Rico, July 8-11, 2007; invited tutorial
39. ICCOPT II & MOPTA-07, McMaster University, Hamilton, ON, Canada, August 13-16, 2007; invited CORS Speaker, lectures on continuous and mixed integer optimization
40. Computational Global Optimization, 2007 INFORMS Annual Meeting, Seattle, WA, USA; invited tutorial
41. Global Optimization in Nonlinear Systems: Algorithms, Software, and Applications, invited plenary lecture, International Conference on Modelling, Identification and Control, Shanghai, China, June 29-July 2, 2008
42. Global Optimization, invited plenary lecture, SINTEF Workshop, Geilo, Norway, January 11-16, 2009
43. Computational Global Optimization, invited plenary tutorial, 14th International Congress on Computational and Applied Mathematics, Antalya, Turkey, September 29 - October 2, 2009
44. Global Optimization Intensive Course for MSc students, University of Edinburgh, Scotland, March 15-19, 2010
45. Nonlinear Optimization, invited plenary tutorial, 1st International Symposium on Computing in Science & Engineering (ISCSE 2010), Izmir, Kusadasi, Turkey, June 3-5, 2010
46. Global Optimization Intensive Course for engineers and scientists, HGL, Reston, VA, USA, August 30-September 3, 2010
47. A Review of Global Optimization Applications. Invited plenary lecture, Conference on Numerical Optimization and Applications in Engineering, CRM, Barcelona, Spain, October 13-15, 2010
48. Global Optimization Intensive Course for scientists, European Synchrotron and Radiation Facility, Grenoble, France, January 31- February 1, 2011

49. Nonlinear Modeling and Optimization with *Mathematica.* Invited presentation, Sabanci University, Istanbul, Turkey, March 2, 2011
50. Global Optimization: State-of-the-Art and Selected Applications. Invited presentation, *Conference on Challenges in Statistics and Operations Research* (CSOR2011), Kuwait City, Kuwait, March 8-10, 2011
51. Nonlinear Modeling and Optimization with *Mathematica*. Invited presentation, Kadir Has University, Istanbul, Turkey, March 25, 2011
52. Comprehensive Optimal Management Planning of Integrated Aquifer and Surface Water Resource Systems. California Water and Environmental Modeling Forum, Monterey, CA, March 2011 (Joint work and presentation with Deschaine, L. M., Guvanasen, V., Demarco, D., Wei, X., Nelson, K., and Matanga, G.)
53. Nonlinear Optimization in Technical Computing Systems. Invited presentation, Yeditepe University, Istanbul, Turkey, April 27, 2011
54. Optimised Planning for Management of Integrated Surface Water and Groundwater Systems, Presented at the 34th IAHR World Conference, Brisbane, Australia, 26 June – 1 July, 2011 (Joint work and presentation with Deschaine, L. M., Guvanasen, V., and Townley, L. R.)
55. Experimental Design Integrated with the LGO Solver Suite for Resource-constrained Optimization. Invited presentation, *Simulation and Optimization with Engineering Applications Workshop*, Széchenyi University, Győr, Hungary, June 29 – July 1, 2011
56. Experimental Design Integrated with the LGO Solver Suite for Resource-constrained Optimization. Contributed presentation, *Second World Congress on Global Optimization in Engineering & Science* (WCGO-2011), Chania, Greece, July 3 – 7, 2011