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Academic Degrees

B.A.	Mathematics, Churchill College, Cambridge 1984
M.Phil.	Control Engineering & Operational Research, Churchill College, Cambridge, 1985
	Thesis: "Linear Programming and Minimum Weight Design – A Comparison of Methods for Solving a Class of Structural Optimization Problems."
M.A.	Mathematics, Churchill College, Cambridge, 1988
Ph.D.	Mathematical Programming, Churchill College, Cambridge, 1989
	Thesis: "Weak Sharp Minima & Penalty Functions in Mathematical Programming."

Professional Experience

2009–	Theme Leader (Optimization), Wisconsin Institutes of Discovery, Madison
1988–	Professor 1998, Associate Professor 1994-98, Assistant Professor 1988-94, Computer Sciences Department, University of Wisconsin, Madison
2006–	Professor (by courtesy) Mathematics Department, University of Wisconsin
1988–	Professor (by courtesy) Industrial and Systems Engineering Department, University of Wisconsin
06/03	Professeur Invité, Mathematics Department, University of Limoges, Limoges
2001-02	Guggenheim Fellow, Visiting Fellow, Exeter College, Oxford, and Visiting Professor, Oxford University Computing Laboratory
1988–2001	Member, Center for the Mathematical Sciences, University of Wisconsin
08/96, 12/98	Honorary Visiting Fellow, University of New South Wales, Sydney, Australia
1994–1995	Visiting Associate Professor, Department of Economics, University of Colorado, Boulder
07/89	Visiting Professor, Consiglio Nazionale Delle Ricerche, Istituto Di Analisi dei Sistemi ed Informatica, Rome
1980–81	Programmer, Programming Research Group, Oxford University Computing Laboratory, Oxford

Professional Societies

Society for Industrial and Applied Mathematics, Institute for Operations Research and the Management Sciences, Mathematical Optimization Society

Research Interests

Mathematical Optimization, Modeling and Applications of Operations Research, Complementarity Problems, Energy and Environmental Policy, Optimization in Medicine, Grid Computation, Numerical Algorithms.

Grants and Patents

Principal Investigator on various research grants from NSF, DOE, AFOSR, NIH, USDA, Microsoft and GAMS Corp. U.S. Patent 6,868,452 "Method for caching of media files to reduce delivery cost", US Patent 8,615,068 "System and Method for Intensity Modulated Arc Therapy Treatment Planning".

Professional Activities

NEOS	Overall control and management (2010–present)
Co-Editor	Mathematical Programming (2001–2011)
Associate Ed.	ACM Transactions on Mathematical Software (2004–present), Journal of Economic Dynamics and Control (2000–08), Mathematical Programming (1997–2001, 2012–present), Optimization Methods and Software (1992–present), SIAM Journal on Control and Opt. (1992-97), SIAM Journal on Optimization (2002–2015)
Ed. Board	MPS/SIAM Series on Optimization (2003–07)
Officer	SIAM Activity Group on Optimization, 2008–10 (Chair)
	Optimization Section of Institute for Operations Research and Management Sciences, 1997-98 (Vice-Chair), 1998-99 (Chair)
Exec. Comm.	Physical Sciences Division, University of Wisconsin (2005–08)
Member	Beale-Orchard-Hays Prize Comm. (2000, Chair 2012, 2015), Broyden Prize Comm. (Chair 2012-2015), INFORMS Nicholson Prize Comm. (2008, Chair 2009), ICCOPT Steering Comm., Mathematical Programming Society (2008-09), INFORMS Dantzig Thesis Award Comm. (2006-07), INFORMS Optimization Prize (2002), Lanchester Prize Comm. (1998-99,2015-16)
Referee	National Science Foundation; Department of Energy; Australian, British, Canadian, Dutch, Israeli, Norwegian and Swedish Research Councils and various prof. journals.

Honours and Prizes

2013	Fellow of SIAM
2012	Power and Energy Society: Power System Anal., Comput. and Econ. Prize
2006	Fellow of INFORMS
2006	Carolyn Rosner Excellent Educator Award, Comp. Sci. Dept., Univ. Wisconsin
2004	Sonoco Technology Award, Sonoco Products Company
2002	The William Pierskalla best paper award for research excellence in health care management science, Institute for Operations Research and the Management Sciences
2001-02	Guggenheim Fellowship
1999-01	Vilas Associate Award, University of Wisconsin
1997	Beale-Orchard-Hays Prize for Excellence in Computational Mathematical Programming, Mathematical Programming Society
1994	National Comput. Science Award for Teaching Undergraduates, Dept. of Energy
1991	Presidential Young Investigators Award, National Science Foundation
1986–87	University of Wisconsin–Madison Chancellor's Award
1986	Rayleigh Prize for Mathematics, Cambridge University
1985	Arthur Shercliff Memorial Prize, Cambridge University
1984–88	Science and Engineering Research Council Award, United Kingdom
1984–85	Churchill College Honorary Scholar, Cambridge University
1984	Wrangler, Mathematics, Cambridge University

Recent Colloquia

Numerous invited talks at U.S. and foreign universities and professional meetings. Details available at `http://www.cs.wisc.edu/~ferris/ferris.talks`

Advisors and Advisees

Total number of Postdoctoral advisees: 8. N. Bartelt, B. Shapiro, H. Dong, J. Ramakhrisnan, S. Wangen, C. Michini, A. Christensen, O. Huber

Total number of Ph.D. students advised: 12. (M. Cao (Industry), S. Dirkse (Industry), S. Billups (University of Colorado), T. Munson (Argonne Natn. Lab.), Q. Chen (Industry), K. Sinapiromsaran (Chulalongkorn University, Thailand), M. Voelker (APL, Johns Hopkins), J.–H. Lim (University of Houston), G. Deng (Industry), Q. Li (Industry), J. Holzer (Pacific Northwest Natn. Lab.), Y. Liu (Industry)

Ph.D. and Master's advisors: E. Anderson, A. Philpott

Conference and Session Organizer

Program Comm. Member: ISMP 2009, ICCOPT II, SIAM Opt. Conf. (2011 (Chair), 2008, 1999)
Co-organizer of International Conf. on Complementarity Problems (1995, '99, '02, '05, '12, '14)
Organizer: IPAM workshop: Optimization and equilibrium in energy economics
Cluster chair at ORSA/TIMS and INFORMS meetings; organizer and co-organizer of major workshops and many technical sessions; session chair at numerous local and international meetings

Publications

[1] M. C. Ferris, *Linear Programming and Minimum Weight Design – A Comparison of Methods for Solving a Class of Structural Optimization Problems*. PhD thesis, University of Cambridge, Cambridge, 1985.

[2] M. C. Ferris, *Weak Sharp Minima and Penalty Functions in Mathematical Programming*. PhD thesis, University of Cambridge, Cambridge, 1988.

[3] M. C. Ferris and A. B. Philpott, "On the Performance of Karmarkar's Algorithm," *Journal of the Operational Research Society*, vol. 39, pp. 257–270, 1988.

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[9] M. C. Ferris, "Parallel Solution of Extremely Large Knapsack Problems," Tech. Rep. 842, Computer Sciences Department, University of Wisconsin, Madison, Wisconsin, 1989.

[10] J. V. Burke and M. C. Ferris, "Characterization of Solution Sets of Convex Programs," *Operations Research Letters*, vol. 10, pp. 57–60, 1991.

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