Michael C Ferris

List of Publications by Year
in descending order

117 papers	5,648 citations	134610 34 h-index	97045 71 g-index
121 all docs	121 docs citations	121 times ranked	3992 citing authors

#	Article	IF	Citations
1	Dynamic Risked Equilibrium. Operations Research, 2022, 70, 1933-1952.	1.2	5
2	Can indicator species guide conservation investments to restore connectivity in Great Lakes tributaries?. Biodiversity and Conservation, 2021, 30, 165-182.	1.2	6
3	Co-optimization of demand response and interruptible load reserve offers for a price-making major consumer. Energy Systems, 2020, 11, 45-71.	1.8	7
4	Solving Stochastic Dynamic Programming Problems: A Mixed Complementarity Approach. Computational Economics, 2020, 55, 925-955.	1.5	1
5	Symposium review: Dairy Brain—Informing decisions on dairy farms using data analytics. Journal of Dairy Science, 2020, 103, 3874-3881.	1.4	16
6	Benefits of Sparse Tableau Over Nodal Admittance Formulation for Power-Flow Studies. IEEE Transactions on Power Systems, 2019, 34, 5023-5032.	4.6	7
7	A Human Pluripotent Stem Cell-Based Screen for Smooth Muscle Cell Differentiation and Maturation Identifies Inhibitors of Intimal Hyperplasia. Stem Cell Reports, 2019, 12, 1269-1281.	2.3	23
8	Solving equilibrium problems using extended mathematical programming. Mathematical Programming Computation, 2019, 11, 457-501.	3.2	11
9	Minimizing opportunity costs to aquatic connectivity restoration while controlling an invasive species. Conservation Biology, 2018, 32, 894-904.	2.4	38
10	Conserving rare species can have high opportunity costs for common species. Global Change Biology, 2018, 24, 3862-3872.	4.2	27
11	A structure-preserving pivotal method for affine variational inequalities. Mathematical Programming, 2018, 168, 93-121.	1.6	1
12	Sparse Tableau Approach for Power System Analysis and Design. , 2018, , .		5
13	Metabolic enzyme cost explains variable trade-offs between microbial growth rate and yield. PLoS Computational Biology, 2018, 14, e1006010.	1.5	76
14	Aging infrastructure creates opportunities for cost-efficient restoration of aquatic ecosystem connectivity. Ecological Applications, 2018, 28, 1494-1502.	1.8	16
15	Pet Project or Best Project? Online Decision Support Tools for Prioritizing Barrier Removals in the Great Lakes and Beyond. Fisheries, 2017, 42, 57-65.	0.6	43
16	Evolvix BEST Names for semantic reproducibility across code2brain interfaces. Annals of the New York Academy of Sciences, 2017, 1387, 124-144.	1.8	1
17	Totally Unimodular Congestion Games. , 2017, , .		5
18	Examination of Three Different ACOPF Formulations With Generator Capability Curves. IEEE Transactions on Power Systems, 2017, 32, 2913-2923.	4.6	24

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19	Identifying areas of optimal multispecies conservation value by accounting for incompatibilities between species. Ecological Modelling, 2016, 332, 74-82.	1.2	2
20	Modelling demand response in organized wholesale energyÂmarkets. Optimization Methods and Software, 2016, 31, 1064-1088.	1.6	1
21	Equilibrium, uncertainty and risk in hydro-thermal electricity systems. Mathematical Programming, 2016, 157, 483-513.	1.6	58
22	On Cournot-Nash-Walras Equilibria and Their Computation. Set-Valued and Variational Analysis, 2016, 24, 387-402.	0.5	6
23	SmartScapeâ„¢: A web-based decision support system for assessing the tradeoffs among multiple ecosystem services under crop-change scenarios. Computers and Electronics in Agriculture, 2016, 121, 108-121.	3.7	49
24	Optimization Models for Three On-Chip Network Problems. Transactions on Architecture and Code Optimization, 2016, 13, 1-27.	1.6	3
25	Estimation of constraint parameters in optimal power flow data sets. , 2015, , .		2
26	A stochastic unit commitment with Derand technique for ISO's Reserve Adequacy Assessment. , 2015, , .		0
27	Enhancing ecosystem restoration efficiency through spatial and temporal coordination. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 6236-6241.	3.3	123
28	The influence of fault geometry on small strike-slip fault mechanics. Journal of Structural Geology, 2015, 73, 49-63.	1.0	15
29	Extending the bidding format to promote demand response. Energy Policy, 2015, 86, 82-92.	4.2	24
30	Security-constrained economic dispatch using semidefinite programming. , 2015, , .		4
31	A Hierarchical Framework for Long-Term Power Planning Models. IEEE Transactions on Power Systems, 2015, 30, 46-56.	4.6	6
32	Computational Study of Security Constrained Economic Dispatch With Multi-Stage Rescheduling. IEEE Transactions on Power Systems, 2015, 30, 920-929.	4.6	35
33	Inferring Host Gene Subnetworks Involved in Viral Replication. PLoS Computational Biology, 2014, 10, e1003626.	1.5	6
34	Challenges and opportunities for optimization in electricity systems. Mathematical Programming, 2013, 140, 235-237.	1.6	3
35	Risk-neutral second best toll pricing. Transportation Research Part B: Methodological, 2013, 48, 67-87.	2.8	23
36	Modeling water allocating institutions based on Multiple Optimization Problems with Equilibrium Constraints. Environmental Modelling and Software, 2013, 46, 196-207.	1.9	48

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37	Payment Rules for Unit Commitment Dispatch. Electricity Journal, 2013, 26, 34-44.	1.3	7
38	A network approach for segmentation in intensity modulated arc therapy. Optimization Methods and Software, 2013, 28, 276-299.	1.6	0
39	Optimization and Mathematical Modeling in Computer Architecture. Synthesis Lectures on Computer Architecture, 2013, 8, 1-144.	1.3	5
40	GUSS: Solving Collections of Data Related Models Within GAMS. Applied Optimization, 2012, , 35-56.	0.4	7
41	Numerical Studies on Reformulation Techniques for Continuous Network Design with Asymmetric User Equilibria. , 2012, , 138-157.		0
42	Uniqueness of integer solution of linear equations. Optimization Letters, 2010, 4, 559-565.	0.9	5
43	Co-Optimization of Generation Unit Commitment and Transmission Switching With N-1 Reliability. IEEE Transactions on Power Systems, 2010, 25, 1052-1063.	4.6	327
44	Numerical Studies on Reformulation Techniques for Continuous Network Design with Asymmetric User Equilibria. International Journal of Operations Research and Information Systems, 2010, 1, 52-72.	1.0	7
45	Simultaneous Batching and Scheduling Using Dynamic Decomposition on a Grid. INFORMS Journal on Computing, 2009, 21, 398-410.	1.0	35
46	Variable-Number Sample-Path Optimization. Mathematical Programming, 2009, 117, 81-109.	1.6	52
47	An extended mathematical programming framework. Computers and Chemical Engineering, 2009, 33, 1973-1982.	2.0	47
48	Grid-Enabled Optimization with GAMS. INFORMS Journal on Computing, 2009, 21, 349-362.	1.0	42
49	A link-node complementarity model and solution algorithm for dynamic user equilibria with exact flow propagations. Transportation Research Part B: Methodological, 2008, 42, 823-842.	2.8	65
50	Optimal Transmission Switching. IEEE Transactions on Power Systems, 2008, 23, 1346-1355.	4.6	465
51	Limited memory solution of bound constrained convex quadratic problems arising in video games. RAIRO - Operations Research, 2007, 41, 19-34.	1.0	5
52	An Optimization Framework for Conformal Radiation Treatment Planning. INFORMS Journal on Computing, 2007, 19, 366-380.	1.0	36
53	Extension of the direct optimization algorithm for noisy functions. , 2007, , .		16
54	Decomposition Scheme for Continuous Network Design Problem with Asymmetric User Equilibria. Transportation Research Record, 2006, 1964, 185-192.	1.0	9

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55	A general MPCC model and its solution algorithm for continuous network design problem. Mathematical and Computer Modelling, 2006, 43, 493-505.	2.0	47
56	Sampling issues for optimization in radiotherapy. Annals of Operations Research, 2006, 148, 95-115.	2.6	4
57	Radiation Treatment Planning: Mixed Integer Programming Formulations and Approaches. , 2006, , 317-340.		15
58	Adaptation of the Uobyqa Algorithm for Noisy Functions. , 2006, , .		20
59	Mathematical Programs with Equilibrium Constraints: Automatic Reformulation and Solution via Constrained Optimization. , 2005, , 67-94.		33
60	Model building with likelihood basis pursuit. Optimization Methods and Software, 2004, 19, 577-594.	1.6	1
61	Foreword: special issue for the 70th birthday of professor Olvi Mangasarian. Optimization Methods and Software, 2004, 19, 439-441.	1.6	0
62	Foreword: special issue on mathematical programming in biology and medicine. Mathematical Programming, 2004, 101, 297.	1.6	1
63	Fractionation in radiation treatment planning. Mathematical Programming, 2004, 101, 387.	1.6	16
64	Semismooth support vector machines. Mathematical Programming, 2004, 101, 185.	1.6	30
65	Variable Selection and Model Building via Likelihood Basis Pursuit. Journal of the American Statistical Association, 2004, 99, 659-672.	1.8	46
66	MIP Models and BB Strategies in Brachytherapy Treatment Optimization. Journal of Global Optimization, 2003, 25, 23-42.	1.1	14
67	Radiosurgery Treatment Planning via Nonlinear Programming. Annals of Operations Research, 2003, 119, 247-260.	2.6	41
68	Clinical implementation of an automated planning system for gamma knife radiosurgery. International Journal of Radiation Oncology Biology Physics, 2003, 56, 1488-1494.	0.4	20
69	Slice models in general purpose modeling systems: An application to DEA. Optimization Methods and Software, 2002, 17, 1009-1032.	1.6	8
70	Interior-Point Methods for Massive Support Vector Machines. SIAM Journal on Optimization, 2002, 13, 783-804.	1.2	121
71	An Optimization Approach for Radiosurgery Treatment Planning. SIAM Journal on Optimization, 2002, 13, 921-937.	1.2	39
72	FATCOP: A Fault Tolerant Condor-PVM Mixed Integer Programming Solver. SIAM Journal on Optimization, 2001, 11, 1019-1036.	1.2	24

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73	The Semismooth Algorithm for Large Scale Complementarity Problems. INFORMS Journal on Computing, 2001, 13, 294-311.	1.0	49
74	FATCOP 2.0: Advanced Features in an Opportunistic Mixed Integer Programming Solver. Annals of Operations Research, 2001, 103, 17-32.	2.6	25
75	Preprocessing Complementarity Problems. Applied Optimization, 2001, , 143-164.	0.4	5
76	Robust path choice in networks with failures. Networks, 2000, 35, 181-194.	1.6	15
77	Compressional fractures considered as contact problems and mixed complementarity problems. Engineering Fracture Mechanics, 2000, 66, 287-303.	2.0	23
78	Complementarity problems in GAMS and the PATH solver. Journal of Economic Dynamics and Control, 2000, 24, 165-188.	0.9	297
79	Modeling languages and Condor: metacomputing for optimization. Mathematical Programming, 2000, 88, 487-505.	1.6	9
80	NEOS and Condor. ACM Transactions on Mathematical Software, 2000, 26, 1-18.	1.6	42
81	Inverse treatment planning for Gamma Knife radiosurgery. Medical Physics, 2000, 27, 2748-2756.	1.6	26
82	Inverse Treatment Planning for Gamma Knife Radiosurgery. , 2000, , 40-42.		1
83	Optimization of gamma knife radiosurgery. DIMACS Series in Discrete Mathematics and Theoretical Computer Science, 2000, , 27-43.	0.0	13
84	Formulating and Solving Nonlinear Programs as Mixed Complementarity Problems. Lecture Notes in Economics and Mathematical Systems, 2000, , 132-148.	0.3	3
85	On the solution of a minimum weight elastoplastic problem involving displacement and complementarity constraints. Computer Methods in Applied Mechanics and Engineering, 1999, 174, 108-120.	3.4	36
86	Interfaces to PATH 3.0: Design, Implementation and Usage. Computational Optimization and Applications, 1999, 12, 207-227.	0.9	88
87	Feasible descent algorithms for mixed complementarity problems. Mathematical Programming, 1999, 86, 475-497.	1.6	72
88	Smooth methods of multipliers for complementarity problems. Mathematical Programming, 1999, 86, 65-90.	1.6	24
89	Optimizing the Delivery of Radiation Therapy to Cancer Patients. SIAM Review, 1999, 41, 721-744.	4.2	208
90	Expressing Complementarity Problems in an Algebraic Modeling Language and Communicating Them to Solvers. SIAM Journal on Optimization, 1999, 9, 991-1009.	1.2	29

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91	Computing Wardropian equilibria in a complementarity framework. Optimization Methods and Software, 1999, 10, 669-685.	1.6	23
92	Solutions to Affine Generalized Equations Using Proximal Mappings. Mathematics of Operations Research, 1999, 24, 219-236.	0.8	4
93	Interfaces to PATH 3.0: Design, Implementation and Usage. , 1999, , 207-227.		6
94	Smooth methods of multipliers for complementarity problems. Mathematical Programming, 1999, 86, 65.	1.6	26
95	Case Studies in Complementarity: Improving Model Formulation. Lecture Notes in Economics and Mathematical Systems, 1999, , 79-97.	0.3	2
96	Partitioning mathematical programs for parallel solution. Mathematical Programming, 1998, 80, 35-61.	1.6	35
97	Operator-Splitting Methods for Monotone Affine Variational Inequalities, with a Parallel Application to Optimal Control. INFORMS Journal on Computing, 1998, 10, 218-235.	1.0	61
98	Engineering and Economic Applications of Complementarity Problems. SIAM Review, 1997, 39, 669-713.	4.2	850
99	A Comparison of Large Scale Mixed Complementarity Problem Solvers. Computational Optimization and Applications, 1997, 7, 3-25.	0.9	89
100	QPCOMP: A quadratic programming based solver for mixed complementarity problems. Mathematical Programming, 1997, 76, 533-562.	1.6	34
101	A Comparison of Large Scale Mixed Complementarity Problem Solvers. , 1997, , 3-25.		7
102	Convergence of an Infeasible Interior-Point Algorithm from Arbitrary Positive Starting Points. SIAM Journal on Optimization, 1996, 6, 316-325.	1.2	8
103	A Pivotal Method for Affine Variational Inequalities. Mathematics of Operations Research, 1996, 21, 44-64.	0.8	21
104	A pathsearch damped Newton method for computing general equilibria. Annals of Operations Research, 1996, 68, 211-232.	2.6	31
105	Pc-matrices and the linear complementarity problem. Linear Algebra and Its Applications, 1996, 246, 299-312.	0.4	11
106	Accessing Realistic Mixed Complementarity Problems within MATLAB. , 1996, , 141-153.		11
107	The path solver: a nommonotone stabilization scheme for mixed complementarity problems. Optimization Methods and Software, 1995, 5, 123-156.	1.6	563
108	Mcplib: a collection of nonlinear mixed complementarity problems. Optimization Methods and Software, 1995, 5, 319-345.	1.6	242

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109	Projected Gradient Methods for Nonlinear Complementarity Problems via Normal Maps. , 1995, , 57-87.		18
110	Nonmonotone stabilization methods for nonlinear equations. Journal of Optimization Theory and Applications, 1994, 81, 53-71.	0.8	34
111	Parallel Variable Distribution. SIAM Journal on Optimization, 1994, 4, 815-832.	1.2	74
112	Parallel Constraint Distribution in Convex Quadratic Programming. Mathematics of Operations Research, 1994, 19, 645-658.	0.8	1
113	On affine scaling and semi-infinite programming. Mathematical Programming, 1992, 56, 361-364.	1.6	14
114	Scheduling with earliness and tardiness penalties. Naval Research Logistics, 1992, 39, 229-245.	1.4	8
115	Finite termination of the proximal point algorithm. Mathematical Programming, 1991, 50, 359-366.	1.6	109
116	Parallel Constraint Distribution. SIAM Journal on Optimization, 1991, 1, 487-500.	1.2	17
117	Decomposition Scheme for Continuous Network Design Problem with Asymmetric User Equilibria. , 0, .		13