Mathematics of Operations Research

Publication details, including instructions for authors and subscription information:
http://pubsonline.informs.org

Editor's Comments on the 50th Anniversary of Mathematics of Operations Research

Katya Scheinberg

To cite this article:
Katya Scheinberg (2026) Editor's Comments on the 50th Anniversary of Mathematics of Operations Research. Mathematics of Operations Research 51(1):iv-viii. https://doi.org/10.1287/moor.2026.50th.v51.n1

https://pubsonline.informs.org/journal/moor

MATHEMATICS OF OPERATIONS RESEARCH
Vol. 51, No. 1, February 2026, pp. iv–viii
ISSN 0364-765X (print), ISSN 1526-5471 (online)

Editor's Comments on the 50th Anniversary of *Mathematics of Operations Research*

Katya Scheinberg[a]

[a] H. Milton Stewart School of Industrial and Systems Engineering, Georgia Institute of Technology, Atlanta, Georgia 30332
Contact: katyascheinberg@gmail.com (KS)

Published Online in Articles in Advance:
January 28, 2026

https://doi.org/10.1287/moor.2026.50th.v51.n1

As we proudly celebrate the 50th anniversary of the journal *Mathematics of Operations Research* (*MOR*), we look back at its history and how it reflects the evolution of the field itself.

The senior editors have prepared a list of 50 papers—one for each year—to represent this history. These papers are but a very small selection from an outstanding collection of contributions published by the journal over the past five decades.

I am extremely honored to be heading the journal during this important milestone, and I am happy to report that the journal is doing very well and continues to expand and evolve with the modern trends in the field. I look forward to its further growth under the leadership of José Blanchet, who has been one of the key contributors to *MOR*'s success for nearly a decade.

As part of our reflection on the past 50 years of *MOR*, I reached out to former editors-in-chief (EiCs) and asked them to share their thoughts on the past and future challenges and developments.

Jan Karel Lenstra (EiC 1993–1998) notes the "increased interaction—or the blurring of borders" as one of the key developments during his tenure. He specifically highlights the merging of complexity theory into nonlinear optimization, led by area editor Ronny Ben-Tal, a pioneering direction at the time that has since become central to the field. Today, hardly any paper on nonlinear optimization is publishable in *MOR* without a careful complexity analysis.

The game theory area has seen a shift toward algorithms during the tenure of Gerard Cornuéjols (EiC 1999–2003) under the supervision of Nimrod Megiddo as area editor. Today, game theory is one of *MOR*'s most vibrant areas, expanding even further with a forthcoming special issue on market design.

Nimrod Megiddo served as EiC from 2004 to 2009 and introduced the area of machine learning, which was later reintroduced as learning theory area by Jim Dai (EiC 2013–2018). With Jim in charge, *MOR* moved further toward modern topics and expanding the scope of related fields that form, in Jim's words, "the foundational pillars of modern machine learning," including optimization and Markov decision processes. Jim's other major contribution was the timely implementation of the online submission and review system without which it is hard to imagine the journal functioning today.

Journals such as *MOR* face new challenges in the current publishing environment. Jan Karel remarked that submissions to high-quality journals such as *MOR* undergo a form of self-selection by conscientious authors, and this helps editors manage the process efficiently. Whereas this remains true, the rapid increase in submissions across many operations research disciplines has made filtering (and self-filtering) less refined. Papers are getting longer, and the task of reviewing has become increasingly demanding yet often less rewarding.

To help address this, *MOR* introduced the Meritorious Reviewer Awards to highlight the vital intellectual contributions of diligent reviewers and to emphasize the essential role they play in maintaining the journal's excellence. We hope these awards will continue to be recognized by the community as honors that reflect both scientific merit and service.

We are grateful to all the reviewers, editors, and former editors-in-chief—Uriel G. Rothblum (2009–2012), Erhan Cinlar (1987–1992), Stephen M. Robinson (1981–1986), and Arthur F. Veinott (1976–1980)—for their invaluable contributions throughout the journal's 50-year history.

Augmented Lagrangians and Applications of the Proximal Point Algorithm in Convex Programming
RT Rockafellar
Mathematics of Operations Research 1976 1(2):97–116

New Finite Pivoting Rules for the Simplex Method
RG Bland
Mathematics of Operations Research 1977 2(2):103–107

Best Algorithms for Approximating the Maximum of a Submodular Set Function
GL Nemhauser, LA Wolsey
Mathematics of Operations Research 1978 3(3):177–188

Mathematical Properties of the Banzhaf Power Index
P Dubey, LS Shapley
Mathematics of Operations Research 1979 4(2):99–131

Some Useful Functions for Functional Limit Theorems
W Whitt
Mathematics of Operations Research 1980 5(1):67–85

Optimal Auction Design
RB Myerson
Mathematics of Operations Research 1981 6(1):58–73

The Economics of Matching: Stability and Incentives
AE Roth
Mathematics of Operations Research 1982 7(4):617–628

Integer Programming with a Fixed Number of Variables
HW Lenstra Jr
Mathematics of Operations Research 1983 8(4):538–548

Lipschitz Behavior of Solutions to Convex Minimization Problems
J-P Aubin
Mathematics of Operations Research 1984 9(1):87–111

Distributional Strategies for Games with Incomplete Information
PR Milgrom, RJ Weber
Mathematics of Operations Research 1985 10(4):619–632

Clique Tree Inequalities and the Symmetric Travelling Salesman Problem
M Grötschel, WR Pulleyblank
Mathematics of Operations Research 1986 11(4):537–569

Minkowski's Convex Body Theorem and Integer Programming
R Kannan
Mathematics of Operations Research 1987 12(3):415–440

Cooling Schedules for Optimal Annealing
B Hajek
Mathematics of Operations Research 1988 13(2):311–329

Markov Chains with Rare Transitions and Simulated Annealing
JN Tsitsiklis
Mathematics of Operations Research 1989 14(1):70–90

Newton's Method for B-Differentiable Equations
J-S Pang
Mathematics of Operations Research 1990 15(2):311–341

Scenarios and Policy Aggregation in Optimization Under Uncertainty
RT Rockafellar, RJ-B Wets
Mathematics of Operations Research 1991 16(1):119–147

The Generalized Basis Reduction Algorithm
L Lovász, HE Scarf
Mathematics of Operations Research 1992 17(3):751–764

On Adaptive-Step Primal-Dual Interior-Point Algorithms for Linear Programming
S Mizuno, MJ Todd, Y Ye
Mathematics of Operations Research 1993 18(4):964–981

A Polynomial Time Algorithm for Counting Integral Points in Polyhedra When the Dimension Is Fixed
AI Barvinok
Mathematics of Operations Research 1994 19(4):769–779

Fast Approximation Algorithms for Fractional Packing and Covering Problems
SA Plotkin, DB Shmoys, É Tardos
Mathematics of Operations Research 1995 20(2):257–301

Rounding of Polytopes in the Real Number Model of Computation
LG Khachiyan
Mathematics of Operations Research 1996 21(2):307–320

Self-Scaled Barriers and Interior-Point Methods for Convex Programming
YE Nesterov, MJ Todd
Mathematics of Operations Research 1997 22(1):1–42

Robust Convex Optimization
A Ben-Tal, A Nemirovski
Mathematics of Operations Research 1998 23(4):769–805

The Flatness Theorem for Nonsymmetric Convex Bodies via the Local Theory of Banach Spaces
W Banaszczyk, AE Litvak, A Pajor, SJ Szarek
Mathematics of Operations Research 1999 24(3):728–750

Mathematical Programs with Complementarity Constraints: Stationarity, Optimality, and Sensitivity
H Scheel, S Scholtes
Mathematics of Operations Research 2000 25(1):1–22

A Weak-to-Strong Convergence Principle for Fejér-Monotone Methods in Hilbert Spaces
HH Bauschke, PL Combettes
Mathematics of Operations Research 2001 26(2):248–264

The Complexity of Decentralized Control of Markov Decision Processes
DS Bernstein, R Givan, N Immerman, S Zilberstein
Mathematics of Operations Research 2002 27(4):819–840

A Comparison of the Sherali-Adams, Lovász-Schrijver, and Lasserre Relaxations for 0–1 Programming
M Laurent
Mathematics of Operations Research 2003 28(3):470–496

Selfish Routing in Capacitated Networks
JR Correa, AS Schulz, NE Stier-Moses
Mathematics of Operations Research 2004 29(4):961–976

Robust Dynamic Programming
GN Iyengar
Mathematics of Operations Research 2005 30(2):257–280

Integer Polynomial Optimization in Fixed Dimension
JA De Loera, R Hemmecke, M Köppe, R Weismantel
Mathematics of Operations Research 2006 31(1):147–153

Subsolutions of an Isaacs Equation and Efficient Schemes for Importance Sampling
P Dupuis, H Wang
Mathematics of Operations Research 2007 32(3):723–757

Facets of Two-Dimensional Infinite Group Problems
SS Dey, J-P Richard
Mathematics of Operations Research 2008 33(1):140–166

Minimal Valid Inequalities for Integer Constraints
V Borozan, G Cornuéjols
Mathematics of Operations Research 2009 34(3):538–546

Proximal Alternating Minimization and Projection Methods for Nonconvex Problems: An Approach Based on the Kurdyka-Łojasiewicz Inequality
H Attouch, J Bolte, P Redont, A Soubeyran
Mathematics of Operations Research 2010 35(2):438–457

The Simplex and Policy-Iteration Methods Are Strongly Polynomial for the Markov Decision Problem with a Fixed Discount Rate
Y Ye
Mathematics of Operations Research 2011 36(4):593–603

Online Stochastic Matching: Online Actions Based on Offline Statistics
VH Manshadi, S Oveis Gharan, A Saberi
Mathematics of Operations Research 2012 37(4):559–573

Robust Markov Decision Processes
W Wiesemann, D Kuhn, B Rustem
Mathematics of Operations Research 2013 38(1):153–183

Learning to Optimize via Posterior Sampling
D Russo, B Van Roy
Mathematics of Operations Research 2014 39(4):1221–1243

On the Convergence of Decomposition Methods for Multistage Stochastic Convex Programs
P Girardeau, V Leclere, AB Philpott
Mathematics of Operations Research 2015 40(1):130–145

Learning in Games via Reinforcement and Regularization
P Mertikopoulos, WH Sandholm
Mathematics of Operations Research 2016 41(4):1297–1324

A Descent Lemma Beyond Lipschitz Gradient Continuity: First-Order Methods Revisited and Applications
HH Bauschke, J Bolte, M Teboulle
Mathematics of Operations Research 2017 42(2):330–348

Error Bounds, Quadratic Growth, and Linear Convergence of Proximal Methods
D Drusvyatskiy, AS Lewis
Mathematics of Operations Research 2018 43(3):919–948

Quantifying Distributional Model Risk via Optimal Transport
J Blanchet, K Murthy
Mathematics of Operations Research 2019 44(2):565–600

Characterization, Robustness, and Aggregation of Signed Choquet Integrals
RD Wang, YR Wei, GE Willmot
Mathematics of Operations Research 2020 45(3):993–1015

Statistics of Robust Optimization: A Generalized Empirical Likelihood Approach
JC Duchi, PW Glynn, H Namkoong
Mathematics of Operations Research 2021 46(3):946–969

Entropy Regularization for Mean Field Games with Learning
X Guo, R Xu, T Zariphopoulou
Mathematics of Operations Research 2022 47(4):3239–3260

Distributionally Robust Stochastic Optimization with Wasserstein Distance
R Gao, A Kleywegt
Mathematics of Operations Research 2023 48(2):603–655

A Stochastic Sequential Quadratic Optimization Algorithm for Nonlinear-Equality-Constrained Optimization with Rank-Deficient Jacobians
AS Berahas, FE Curtis, MJ O'Neill, DP Robinson
Mathematics of Operations Research 2024 49(4):2212–2248

Stationary Points of a Shallow Neural Network with Quadratic Activations and the Global Optimality of the Gradient Descent Algorithm
D Gamarnik, EC Kizildag, I Zadik
Mathematics of Operations Research 2025 50(1):209–251