

PUBLICATIONS

1 Articles acceptés ou parus dans des revues avec comité d’arbitrage

1. “Revenue optimization in energy networks involving self-scheduled demand and a smart grid”
S. Afşar, L. Brotcorne, P. Marcotte and G. Savard
Forthcoming, Computers and Operations Research
2. M. Zimmermann, E. Frejinger and P. Marcotte
“A strategic Markovian traffic equilibrium model for capacitated networks”
Forthcoming, Transportation Science
3. T. Dan, A. Lodi and P. Marcotte
“An exact algorithmic framework for a class of mixed-integer programs with equilibrium constraints”
SIAM Journal on Optimization **31** (2021) 275–306
4. T. Dan, A. Lodi and P. Marcotte
“Joint location and pricing within a user-optimized environment”
EURO Journal on Computational Optimization **8** (2020) 61–84
5. T. Dan and P. Marcotte
“Competitive facility location with selfish users and queues”
Operations Research **67** (2019) 479–497
6. A. Kamgaing Kuiteing, P. Marcotte and G. Savard
“Pricing and revenue maximization over a multicommodity transportation network: the nonlinear demand case”
Computational Optimization and Applications **71** (2018) 641–671
7. M. Carvalho, A. Lodi and P. Marcotte
“A polynomial algorithm for a continuous bilevel knapsack problem”
Operations Research Letters **46** (2018) 185–188
8. M. Hosseinalifam, P. Marcotte and G. Savard
“A new bid price approach to dynamic resource allocation in network revenue management”
European Journal of Operations Research **255** (2016) 142–150
9. A. Kamgaing Kuiteing, P. Marcotte and G. Savard
“Network pricing of congestion-free networks: the elastic and linear demand case”
Transportation Science **51** (2016) 791–806
10. S. Afşar, L. Brotcorne, P. Marcotte and G. Savard
“Achieving an optimal trade-off between revenue and energy peak within a smart grid environment”
Renewable Energy **91** (2016) 293–301
11. M. Hosseinalifam, G. Savard and P. Marcotte
“Computing booking limits under a non-parametric demand model: A mathematical programming approach”
Journal of Revenue and Pricing Management **15** (2016) 170–184
12. F. Gilbert, M. Anjos, P. Marcotte and G. Savard
“Optimal design of bilateral contracts for energy procurement”
European Journal of Operational Research **246** (2015) 641–650

13. M. Hosseinalifam, P. Marcotte and G. Savard
 “Network capacity control under a nonparametric demand choice model”
Operations Research Letters **43** (2015) 461–466
14. M. Nasri, F. Bastin and P. Marcotte
 “Quantifying the social welfare loss in moral hazard models”
European Journal of Operational Research **245** (2015) 226–235
15. S. Sharif Azadeh, P. Marcotte and G. Savard
 “A Non-Parametric Approach to Demand Forecasting in Revenue Management”
Computers and Operations Research **63** (2015) 23–31
16. F. Gilbert, P. Marcotte and G. Savard
 “A numerical study of the logit network pricing problem”
Transportation Science **43** (2015) 706–719
17. S. Sharif Azadeh, P. Marcotte and G. Savard
 “A taxonomy of demand uncensoring methods in revenue management”
Journal of Revenue and Pricing Management **13** (2014) 440–456
18. J. Gu erin, P. Marcotte and G. Savard
 “ L^p Approximation of Univariate Concave Functions”
JOTA **161** (2014) 490–505
19. F. Gilbert, P. Marcotte and G. Savard
 “Logit network pricing”
Computers and Operations Research **41** (2014) 291–298
20. F. Gilbert, P. Marcotte and G. Savard
 “Mixed-logit network pricing”
Computational Optimization and Applications **57** (2014) 105–127
21. S. Mirza Alizadeh, P. Marcotte and G. Savard
 “Two-stage stochastic bilevel programming over a transportation network”
Transportation Research B **58** (2013) 92–105
22. P. Marcotte, G. Savard and A. Schoeb
 “A hybrid approach to the solution of a pricing model with continuous demand segmentation”
EURO Journal on Computational Optimization **1** (2013) 117–142
23. C.O. Pieume, P. Marcotte, L.P. Fotso and P. Siarry
 “Generating Efficient Solutions in Bilevel Multi-Objective Programming Problems”
American Journal of Operations Research **3** (2013) 289–298
24. L. Brotcorne, F. Cirinei, P. Marcotte and G. Savard
 “A Tabu search algorithm for the network pricing problem”
Computers and Operations Research **39** (2012) 2603–2611
25. L. Brotcorne, F. Cirinei, P. Marcotte and G. Savard
 “An Exact Algorithm for the Network Pricing Problem”
Discrete Optimization **8** (2011) 246–258
26. C.O. Pieume, P. Marcotte, L. P. Fotso and P. Siarry
 “Solving Bilevel Linear Multiobjective Programming Problems”
American Journal of Operations Research **1** (2011) 214–219

27. G. Heilporn, M. Labbé, P. Marcotte et G. Savard, “Valid inequalities and Branch-and-Cut for the Clique Pricing Problem”
Discrete Optimization **8** (2011) 246–258.
28. G. Heilporn, M. Labbé, P. Marcotte and G. Savard
“A Polyhedral Study of the Network Pricing Problem with Connected Toll Arcs”
Networks **55** (2010) 234–246
29. Y. Zhang, O. Berman, P. Marcotte and V. Verter
“A Bilevel Model for Preventive Healthcare Facility Network Design with Congestion”
IIE Transactions **42** (2010) 865–880
30. G. Heilporn, P. Marcotte and G. Savard
“A Parallel Between Two Classes of Pricing Problems in Transportation and Economics”
Journal of Revenue and Pricing Management **9** (2010) 110–125
31. P. Marcotte, A. Mercier, G. Savard and V. Verter
“Toll Policies for Mitigating Hazardous Materials Transport Risk”
Transportation Science **43** (2009) 228–243
32. P. Marcotte and D.L. Zhu
“Existence and computation of optimal tolls in multiclass network equilibrium problems”
Operations Research Letters **37** (2009) 211–214
33. P. Marcotte, G. Savard and D.L. Zhu
“Mathematical structure of a bilevel strategic pricing model”
European Journal of Operational Research **193** (2009) 552–566
34. L. Brotcorne, M. Labbé, P. Marcotte and G. Savard
“Joint Design and Pricing on a Network”
Operations Research **56** (2008) 1104–1115
35. L. Brotcorne, G. Savard and P. Marcotte
“Bilevel Programming: The Montreal School”
INFOR **46** (2008) 231–246
36. S. Dewez, M. Labbé, P. Marcotte and G. Savard
“New formulations and valid inequalities for a bilevel pricing problem”
Operations Research Letters **36** (2008) 141–149
37. B. Colson, P. Marcotte and G. Savard
“An overview of bilevel optimization”
Annals of Operations Research **153** (2007) 235–256
38. P. Marcotte and G. Savard
“A Bilevel Approach to Optimal Pricing”
Zurich Intelligencer (2007) 36–37
39. J. Guérin, P. Marcotte and G. Savard
“An optimal adaptive algorithm for the approximation of concave functions”
Mathematical Programming A **107** (2006) 357–366
40. J.-P. Dussault, P. Marcotte, S. Roch and G. Savard
“A smoothing heuristic for a class of bilinear bilevel programs”
European Journal of Operational Research **174** (2006) 1396–1413.

41. S. Roch, G. Savard and P. Marcotte
 “An approximation algorithm for Stackelberg network pricing”
Networks **46** (2005) 57–67
42. B. Colson, P. Marcotte and G. Savard
 “A trust-region method for nonlinear bilevel programming: algorithm and computational experience”
Computational Optimization and Applications **30** (2005) 211–227
43. B. Colson, P. Marcotte and G. Savard
 “Bilevel programming: A survey”
4OR **3** (2005) 87–107
44. P. Marcotte, S. Nguyen and A. Schoeb
 “A strategic model of traffic assignment in static capacitated networks”
Operations Research **52** (2004) 191–212
45. P. Marcotte and L. Wynter
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46. P. Marcotte, G. Savard and F. Semet
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47. Y. Hamdouch, P. Marcotte and S. Nguyen
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48. Y. Hamdouch, P. Marcotte and S. Nguyen
 “A strategic model for dynamic traffic assignment”
Networks and Spatial Economics **4** (2004) 291–315
49. J.-P. Côté, P. Marcotte and G. Savard
 “A bilevel modeling approach to pricing and fare optimization in the airline industry”
Journal of Revenue and Pricing Management **2** (2003) 23–36
50. P. Marcotte and D. Zhu
 “A cutting plane for quasimonotone variational inequalities”
Computational Optimization and Applications **20** (2001) 317–324
51. L. Brotcorne, M. Labbé, P. Marcotte and G. Savard
 “A bilevel model and algorithm for a freight tariff setting problem”
Transportation Science **35** (2001) 1–14
52. P. Marcotte, G. Savard and D. L. Zhu
 “A trust region algorithm for nonlinear bilevel programming”
Operations Research Letters **29** (2001) 171–179
53. S. Dubuc, I. Kagabo and P. Marcotte
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RAIRO Recherche Opérationnelle **34** (2000) 49–59
54. P. Marcotte and D. L. Zhu
 “On the existence of solutions to the dynamic user equilibrium problem”
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55. L. Brotcorne, M. Labbé, P. Marcotte and G. Savard
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56. J.-P. Crouzeix, P. Marcotte and Daoli Zhu
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57. Y.W. Xu, J.H. Wu, M. Florian and P. Marcotte
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58. S. Dubuc, I. Kagabo and P. Marcotte
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INFOR **37** (1999) 141–148
59. P. Marcotte and D. L. Zhu
 “Weak sharp solution of variational inequalities”
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60. S.Q. Wu, Y. Chen and P. Marcotte
 “A cutting plane method for linear bilevel programs”
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61. P. Marcotte and D. L. Zhu
 “Convergence properties of feasible descent algorithms for solving variational inequalities in Banach spaces”
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62. M. Labbé, P. Marcotte and G. Savard
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63. J.-L. Goffin, P. Marcotte and D. L. Zhu
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65. P. Marcotte and S.Q. Wu
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66. P. Marcotte and D. L. Zhu
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67. D. L. Zhu and P. Marcotte
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68. M. Gendreau, P. Marcotte and G. Savard
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71. P. Marcotte and G. Savard
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72. M. Desrochers, P. Marcotte and M. Stan
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73. P. Marcotte and J. H. Wu
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JOTA **85** (1995) 347–362
74. D. L. Zhu and P. Marcotte
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75. J. H. Wu, M. Florian and P. Marcotte
 “Transit equilibrium assignment: A model and solution algorithms”
Transportation Science **28** (1994) 193–203
76. D. L. Zhu and P. Marcotte
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77. J.E. Fernández, P. Marcotte, S. Mondschein, J. Vera and A. Weintraub
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80. P. Marcotte and G. Marquis
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81. P. Marcotte, L. Zubieta and G. Marquis
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Transportation Science **26** (1992) 36–47

82. E. Fernández and P. Marcotte
 “Operators-Users Equilibrium Model in a Partially Regulated Transit System”
Transportation Science **26** (1992) 93–105
83. P. Marcotte and Gilles Savard
 “Novel approaches to the discrimination problem”
Zeitschrift für Operations Research (Theory) **36** (1992) 517–545
84. P. Marcotte
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INFOR **29** (1991) 258–270
85. P. Marcotte and G. Savard
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86. P. Marcotte, O. Drissi-Kaïtouni and L. Zubieta
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 “A note on a bilevel programming algorithm by LeBlanc and Boyce”
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91. P. Marcotte and J. Guélat
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92. P. Marcotte
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96. A. Haurie and P. Marcotte
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97. P. Marcotte
 “Network design problem with congestion effects: A case of bilevel programming”
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98. J. Guélat and P. Marcotte
 “Some comments on Wolfe’s “Away Step””
Mathematical Programming **35** (1986) 110–119
99. P. Marcotte
 “A new algorithm for solving variational inequalities, with application to the traffic assignment problem”
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100. A. Haurie and P. Marcotte
 “On the relationship between Nash-Cournot and Wardrop equilibria”
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102. P. Marcotte
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2 Actes de conférences avec comité d’arbitrage

1. Y. Bengio, N. Le Roux, P. Vincent, O. Delalleau and P. Marcotte
 “Convex Neural Networks”
 Advances in Neural Information Processing Systems (NIPS 2005), December 5–8 2005, Vancouver, British Columbia, Canada
2. M. Fortin, P. Marcotte and G. Savard
 “Pricing a segmented market subject to congestion”
 Proceedings of TRISTAN V (Triennial Symposium on Transportation Analysis) Le Gosier, Guadeloupe, July 13–18 2004
3. L. Brotcorne, M. Labbé, P. Marcotte and G. Savard
 “A bilevel model for a network design and tariff setting problem”
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4. P. Marcotte, S. Nguyen and K. Tanguay
 “Implementation of an efficient algorithm for the multiclass traffic assignment problem”
 Proceedings of the 13th International Symposium on Transportation and Traffic Theory, Lyon, July 24–26 1996, Jean-Baptiste Lesort ed., Pergamon (1996) 217–226
5. P. Marcotte and D. L. Zhu
 “An efficient algorithm for a bicriterion traffic assignment problem”
 Proceedings of TRISTAN II (Triennial Symposium on Transportation Analysis) Capri, June 23–28 1994, 891–897

3 Chapitres de livre

1. P. Marcotte, A. Mercier., G. Savard et V. Verter
“Gestion du risque lié au transport des matières dangereuses : une approche basé sur la tarification”
Stratégies logistiques et matières dangereuses, N. de Marcellis-Warin, M. Trépanier et I. Peignier eds., Presses Internationales Polytechnique (2013) 157–172.
2. P. Marcotte and M. Patriksson
“Traffic Equilibrium”
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3. M. Didi-Biha, P. Marcotte and G. Savard
“Path-based Formulations of a Bilevel Toll Setting Problem”
Optimization with Multivalued Mappings Theory: Theory, Applications and Algorithms, S. Dempe and V. Kalashnikov eds., Springer (2006) 29–50
4. P. Marcotte and G. Savard
“Bilevel Programming: A combinatorial perspective”
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5. P. Marcotte and G. Savard
“A bilevel programming approach to Price Setting”
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6. P. Marcotte and G. Savard
“Bilevel Programming: Formulation”, “Bilevel Programming: Applications” and “Bilevel Programming: Algorithms”
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7. M. Labbé, P. Marcotte and G. Savard
“On a class of bilevel programs”
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8. P. Marcotte
“Reformulations of a bicriterion equilibrium problem”
Reformulation - Nonsmooth, Piecewise Smooth, Semismooth and Smoothing Methods, M. Fukushima and Liqun Qi eds., Kluwer (1999) 269–292
9. P. Marcotte and S. Nguyen
“Hyperpath formulations of traffic assignment problems”
Equilibrium and Advanced Transportation Modelling, P. Marcotte and S. Nguyen eds., Kluwer (1998) 175–200
10. P. Marcotte and D. L. Zhu
“Equilibria with infinitely many differentiated classes of customers”
Complementarity and variational problems. State of the art, J-S Pang and M. Ferris eds., SIAM (1997) 234–258
11. P. Marcotte
“Advantages and drawbacks of variational inequality formulations”
Variational Inequalities and Network Equilibrium Problems, F. Giannessi and A. Maugeri eds., Plenum Press (1995) 179–194

12. P. Marcotte and M. Blain
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4 Livres

1. M. Gendreau and P. Marcotte, eds.
Transportation and Network Analysis: Current Trends. Miscellanea in honor of Michael Florian
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2. P. Marcotte and S. Nguyen, eds.
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5 Autres

1. P. Marcotte et F. Soumis
Tous les chemins mènent aux maths
Québec Science (2000)
2. P. Marcotte
Design optimal d'un rseau de transport en prsence d'effets de congestion
Thse de doctorat (Ph.D.), Universié de Montréal (1981)
3. P. Marcotte
Application de la transforme de Laplace l'interpolation par des sommes d'exponentielles
Mmoire de matrise (M.Sc.), Université de Montréal (1975)

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