

Articles

1. S. Fujishige, To. Kitahara, and L. A. Végh: An update-and stabilize framework for the minimum-norm-point problem. *Proceedings of IPCO2023*, LNCS 13904 (2023) 142–156. https://doi.org/10.1007/978-3-031-32726-1_11
2. S. Fujishige, T. Király, K. Makino, K. Takazawa, and S. Tanigawa: Minimizing submodular functions on diamonds via generalized fractional matroid matchings. *Journal of Combinatorial Theory, Series B*, **157** (2022) 294–345. <https://doi.org/10.1016/j.jctb.2022.07.005>
3. S. Fujishige and F. Tardella: Discrete 2-convex functions. *Mathematical Programming, Ser. A*, **195** (2022) 831–854. <https://doi.org/10.1007/s10107-021-01717-z>
4. S. Fujishige and H. Hirai: Compression of M^{\sharp} -convex functions — Flag matroids and valuated permutohedra. *Journal of Combinatorial Theory, Ser. A*, **185** (2022) Article 105525 (published online, 25 August 2021). <https://doi.org/10.1016/j.jcta.2021.105525>
5. K. Ando and S. Fujishige: Signed ring families and signed posets. *Optimization Methods and Software*, **36** (2021) 262–278. <https://doi.org/10.1080/10556788.2020.1740219>
6. S. Fujishige and Z. Yang: Barter market, indivisibility, and Markovian core. *Bulletin of Economic Research*, published online 05 March 2021. <https://doi.org/10.1111/boer.12279>
7. S. Fujishige, K. Takazawa, and Y. Yokoi: A note on a nearly uniform partition into common independent sets of two matroids. *Journal of the Operations Research Society of Japan*, **63** (3) (2020) 71–77. <https://doi.org/10.15807/jorsj.63.71>
8. S. Fujishige: Greedy systems of linear inequalities and lexicographically optimal solutions. *RAIRO–Operations Research*, **53** (2019) 1929–1935. <https://doi.org/10.1051/ro/2019001>
9. S. Fujishige: A note on submodular function minimization by Chubanov’s LP algorithm. *Discrete Optimization*, **33** (2019) 140–145. <https://doi.org/10.1016/j.disopt.2019.04.001>
10. S. Fujishige, Y. Sano, and P. Zhan: Submodular optimization views on the random assignment problem. *Mathematical Programming, Ser. A*, **178** (2019) 485–501. <https://doi.org/10.1007/s10107-018-1310-4>
11. S. Fujishige, Y. Sano, and P. Zhan: The random assignment problem with submodular constraints on goods. *ACM Transactions on Economics and Computation* **6**, 1, Article 3 (March 2018), 28 pages. <https://doi.org/10.1145/3175496>

12. S. Fujishige and S. Tanigawa: Polynomial combinatorial algorithms for skew-bisubmodular function minimization. *Mathematical Programming*, Ser. A, **171** (2018) 87–114.
DOI: 10.1007/s10107-017-1171-2
13. S. Fujishige and Z. Yang: On a spontaneous decentralized market process. *Journal of Mechanism and Institution Design* **2**(1) (2017) 1–37.
DOI:10.22574/jmid.2017.12.001
14. S. Fujishige: Parametric bisubmodular function minimization and its associated signed ring family. *Discrete Applied Mathematics* **227** (2017) 142–148.
DOI: 10.1016/j.dam.2017.04.047
15. S. Fujishige, M. X. Goemans, T. Harks, B. Peis, and R. Zenklusen: Matroids are immune to Braess paradox. *Mathematics of Operations Research* **42** (2017) 745–761.
<http://dx.doi.org/10.1287/moor.2016.0825> (available online February 14, 2017).
16. B. Chen, S. Fujishige, and Z. Yang: Decentralized market processes for stable job matchings with competitive salaries. *Journal of Economic Theory* **165** (2016) 25–36.
doi:10.1016/j.jet.2016.04.003 (available online 19 April 2016).
17. S. Fujishige, K. Murota, and A. Shioura: Monotonicity in steepest ascent algorithms for polyhedral L-concave functions. *Journal of the Operations Research Society of Japan*, **58** (2015) 184–208.
18. S. Fujishige, M. X. Goemans, T. Harks, B. Peis, and R. Zenklusen: Congestion games viewed from M-convexity. *Operations Research Letters*, **43** (2015) 329–333.
DOI: 10.1016/j.orl.2015.04.002
19. S. Fujishige and J. Maßberg: Dual consistent systems of linear inequalities and cardinality constrained polytopes. *Mathematical Programming*, Ser. B, **150** (2015) 35–48.
DOI 10.1007/s10107-014-0748-2
20. S. Fujishige and S. Tanigawa: A min-max theorem for transversal submodular functions and its implications. *SIAM Journal on Discrete Mathematics*, **28** 4 (2014) 1855–1875.
<http://dx.doi.org/10.1137/130936415>
21. S. Fujishige: Bisubmodular polyhedra, simplicial divisions, and discrete convexity. *Discrete Optimization* **12** (2014) 115–120.
DOI 10.1016/j.disopt.2014.02.002
22. S. Fujishige, S. Tanigawa, and Y. Yoshida: Generalized skew bisubmodularity: A characterization and a min-max theorem. *Discrete Optimization* **12** (2014) 1–9.
DOI 10.1016/j.disopt.2013.12.001
23. B. Chen and S. Fujishige: On the feasible payoff set of two-player repeated games with unequal discounting. *International Journal of Game Theory* **42** (2013) 295–303.
24. S. Fujishige: A note on polylinking flow networks. *Mathematical Programming*, Ser. A **137** (2013) 601–607.
25. A. Frank, S. Fujishige, N. Kamiyama, and N. Katoh: Independent arborescences in directed graphs. *Discrete Mathematics*, 313 (2013)453–459.

26. S. Fujishige and Z. Yang: On revealed preference and indivisibilities. *Modern Economy*, **3** (2012) 752–758; DOI: 10.4236/me.2012.36096.
27. S. Fujishige and B. Peis: Lattice polyhedra and submodular flows. *Japan Journal of Industrial and Applied Mathematics* **29** (2012) 441–451.
28. S. Fujishige: Personal reminiscence—Combinatorial and discrete optimization problems in which I have been interested. *Japan Journal of Industrial and Applied Mathematics* **29** (2012) 357–384.
29. S. Fujishige and N. Kamiyama: The root location problem for arc-disjoint arborescences. *Discrete Applied Mathematics* **160** (2012) 1964–1970.
30. S. Fujishige and S. Isotani: A submodular function minimization algorithm based on the minimum-norm base. *Pacific Journal of Optimization* **7** (2011) 3–17.
31. S. Fujishige: A note on disjoint arborescences. *Combinatorica* **30**(2) (2010) 247–252.
32. S. T. McCormick and S. Fujishige: Strongly polynomial and fully combinatorial algorithms for bisubmodular function minimization. *Mathematical Programming, Ser. A* **122** (2010) 87–120.
33. K. Bérczi, S. Fujishige, and N. Kamiyama: A linear-time algorithm to find a pair of arc-disjoint spanning in-arborescence and out-arborescence in a directed acyclic graph. *Information Processing Letters* **109** (2009) 1227–1231.
34. S. Fujishige and K. Nagano: A structure theory for the parametric submodular intersection problem. *Mathematics of Operations Research* **34** (2009) 513–521.
35. S. Fujishige, T. Hayashi, and K. Nagano: Minimizing continuous extensions of discrete convex functions with linear inequality constraints. *SIAM Journal on Optimization* **20** (2009) 856–867.
36. S. Fujishige, T. Hayashi, K. Yamashita, and U. Zimmermann: Zonotopes and the LP-Newton method. *Optimization and Engineering* **10** (2009) 193–205.
37. M. Sakashita, K. Makino, H. Nagamochi, and S. Fujishige: Minimum transversals in posi-modular systems. *SIAM Journal on Discrete Mathematics* **23** (2009) 858–871.
38. U. Faigle and S. Fujishige: A general model for matroids and the greedy algorithm. *Mathematical Programming, Ser. A*, **119** (2009) 353–369.
39. S. Fujishige: Theory of principal partitions revisited. In: W. Cook, L. Lovász, and J. Vygen (Editors): *Research Trends in Combinatorial Optimization* (Springer, Berlin, 2009), pp. 127–162.
40. M. Sakashita, K. Makino, and S. Fujishige: Minimizing a monotone concave function with laminar covering constraints. *Discrete Applied Mathematics* **156** (2008) 204–219.
41. S. Fujishige and H. Narayanan: Polyhedrally tight set functions and discrete convexity. *Pacific Journal of Optimization* **4** (2008) 139–151.
42. M. Sakashita, K. Makino, and S. Fujishige: Minimum cost source location problems with flow requirements. *Algorithmica* **50** (2008) 555–583.

43. S. Fujishige, G. A. Koshevoy, and Y. Sano: Matroids on convex geometries. *Discrete Mathematics* **307** (2007) 1936–1950; available online, December 1, 2006.
44. S. Fujishige and A. Tamura: A two-sided discrete-concave market with possibly bounded side payments: an approach by discrete convex analysis. *Mathematics of Operations Research* **32** (2007) 136–155.
45. S. Mamada, T. Uno, K. Makino and S. Fujishige: An $O(n \log^2 n)$ algorithm for the optimal sink location problem on dynamic tree networks. *Discrete Applied Mathematics* **154** (2006) 2387–2401.
46. S. Fujishige and A. Tamura: A general two-sided matching market with discrete concave utility functions. *Discrete Applied Mathematics* **154** (2006) 950–970.
47. S. Fujishige and S. Iwata: Bisubmodular function minimization. *SIAM Journal on Discrete Mathematics* **19** (2006) 1065–1073.
48. Y. Matsuoka and S. Fujishige: Practical efficiency of maximum flow algorithms using MA orderings and preflows. *Journal of the Operations Research Society of Japan* **48** (2005) 297–307.
49. S. Mamada, T. Uno, K. Makino, and S. Fujishige: A tree partitioning problem arising from an evacuation problem in tree dynamic networks with multiple exits. *Journal of the Operations Research Society of Japan* **48** (2005) 196–206.
50. S. Fujishige: Dual greedy polyhedra, choice functions, and abstract convex geometries. *Discrete Optimization* **1** (2004) 41–49.
51. A. Eguchi, S. Fujishige, and T. Takabatake: A polynomial-time algorithm for the generalized independent-flow problem. *Journal of the Operations Research Society of Japan* **47** (2004) 1–17.
52. S. Fujishige, K. Makino, T. Takabatake, and K. Kashiwabara: Polybasic polyhedra: Structure of polyhedra with edge vectors of support size at most 2. *Discrete Mathematics* **280** (2004) 13–27.
53. S. Fujishige and S. Isotani: New maximum flow algorithms by MA orderings and scaling. *Journal of the Operations Research Society of Japan* **46** (2003) 243–250.
54. S. Fujishige and Z. Yang: A note on Kelso and Crawford’s gross substitutes condition. *Mathematics of Operations Research* **28** (2003) 463–469.
55. S. Fujishige: Submodular function minimization and related topics. *Optimization Methods and Software* **18** (2003) 167–180.
56. S. Fujishige: A maximum flow algorithm using MA ordering. *Operations Research Letters* **31** (2003) 176–178.
57. K. Makino, T. Takabatake and S. Fujishige: A simple matching algorithm for regular bipartite graphs. *Information Processing Letters* **84** (2002) 189–193.
58. S. Fujishige and S. Iwata: A descent method for submodular function minimization. *Mathematical Programming, Ser. A* **92** (2002), 387–390.

59. S. Mamada, K. Makino and S. Fujishige: Optimal sink location problem for dynamic flows in a tree network. *IEICE Transactions on Fundamentals* **E85-A** (2002) 1020–1025.
60. S. Fujishige and Z. Yang: Existence of an equilibrium in a general competitive exchange economy with indivisible goods and money. *Annals of Economics and Finance* **3** (2002) 135–147.
61. K. Arata, S. Iwata, K. Makino and S. Fujishige: Locating sources to meet flow demands in undirected networks. *Journal of Algorithms* **42** (2002) 54–68.
62. S. Iwata, L. Fleischer and S. Fujishige: A combinatorial strongly polynomial algorithm for minimizing submodular functions. *Journal of ACM* **48** (2001) 761–777.
63. S. Fujishige and S. B. Patkar: Realization of set functions as cut functions of graphs and hypergraphs. *Discrete Mathematics* **226** (2001) 199–210.
64. S. Fujishige and K. Murota: Notes on L-/M-convex functions and the separation theorems. *Mathematical Programming* **88** (2000) 129–146.
65. S. Fujishige: A note on Faigle and Kern’s dual greedy polyhedra. *Mathematical Programming* **88** (2000) 217–220.
66. S. Fujishige, X. Liu and X. Zhang: An algorithm for solving the minimum-norm point problem over the intersection of a polytope and an affine set. *Journal of Optimization Theory and Applications* **105** (2000) 113–141.
67. S. Fujishige and S. Iwata: Algorithms for submodular flows. *IEICE Transactions on Information and Systems* **E83-D** (2000) 322–329.
68. S. Fujishige: A laminarity property of the polyhedron described by a weakly posi-modular set function. *Discrete Applied Mathematics* **100** (2000) 123–126.
69. S. Fujishige and S. Iwata: Minimizing a submodular function arising from a concave function. *Discrete Applied Mathematics* **92** (1999) 211–215.
70. S. Fujishige: Another simple proof of the validity of Nagamochi and Ibaraki’s min-cut algorithm and Queyranne’s extension to symmetric submodular function minimization. *Journal of the Operations Research Society of Japan* **41** (1998) 626–628.
71. S. Fujishige and Z. Yang: A lexicographic algebraic theorem and its applications. *Linear Algebra and Its Applications* **279** (1998) 75–91.
72. K. Ando, S. Fujishige and T. Naitoh: Balanced bisubmodular systems and bidirected flows. *Journal of the Operations Research Society of Japan* **40** (1997) 437–447.
73. S. Fujishige: A min-max theorem for bisubmodular polyhedra. *SIAM Journal on Discrete Mathematics* **10** (1997) 294–308.
74. K. Ando, S. Fujishige and T. Nemoto: The minimum-weight ideal problem for signed posets. *Journal of the Operations Research Society of Japan* **39** (1996) 558–565.
75. S. Fujishige and X. Zhang: A push/relabel framework for submodular flows and its refinement for 0-1 submodular flows. *Optimization* **38** (1996) 133–154.

76. K. Ando and S. Fujishige: On structures of bisubmodular polyhedra. *Mathematical Programming* **74** (1996) 293–317.
77. K. Ando, S. Fujishige and T. Nemoto: Decomposition of a signed graph into strongly connected components and its signed poset structure. *Discrete Applied Mathematics* **68** (1996) 237–248.
78. K. Ando, S. Fujishige and T. Naitoh: A characterization of bisubmodular functions. *Discrete Mathematics* **148** (1996) 299–303.
79. K. Ando, S. Fujishige and T. Naitoh: A greedy algorithm for minimizing a separable convex function over a finite jump system. *Journal of the Operations Research Society of Japan* **38** (1995) 362–375.
80. S. Fujishige and S. B. Patkar: The orthant non-interaction theorem for certain combinatorial polyhedra and its implications in the intersection and the Dilworth truncation of bisubmodular functions. *Optimization* **34** (1995) 329–339.
81. S. Fujishige and X. Zhang: An efficient cost scaling algorithm for the independent assignment problem. *Journal of the Operations Research Society of Japan* **38** (1995) 124–136.
82. K. Ando, S. Fujishige and T. Naitoh: A greedy algorithm for solving a separable convex optimization problem on an integral bisubmodular polyhedron. *Journal of the Operations Research Society of Japan* **37** (1994) 188–196.
83. K. Iwano, S. Misono, S. Tezuka and S. Fujishige: A new scaling algorithm for the maximum mean cut problem. *Algorithmica* **11** (1994) 243–255.
84. S. Fujishige, H. Sato and P. Zhan: An algorithm for finding the minimum-norm point in the intersection of a polyhedron and a hyperplane. *Japan Journal of Industrial and Applied Mathematics* **11** (1994) 245–264.
85. S. Fujishige, K. Iwano, J. Nakano and S. Tezuka: A speculative contraction method for minimum cost flows: Toward a practical algorithm. *DIMACS Series in Discrete Mathematics and Theoretical Computer Science* **12** (1993) 219–245.
86. S. Fujishige and P. Zhan: A dual algorithm for finding a nearest pair of points in two polytopes. *Journal of the Operations Research Society of Japan* **35** (1992) 353–365.
87. S. Fujishige and X. Zhang: New algorithms for the intersection problem of submodular systems. *Japan Journal of Industrial and Applied Mathematics* **9** (1992) 369–382.
88. T. Naitoh and S. Fujishige: A note on the Frank-Tardos bi-truncation algorithm for crossing-submodular functions. *Mathematical Programming* **53** (1992) 361–363.
89. S. Fujishige and P. Zhan: A dual algorithm for finding the minimum-norm point in a polytope. *Journal of the Operations Research Society of Japan* **33** (1990) 188–195.
90. S. Fujishige, H. Röck and U. Zimmermann: A strongly polynomial algorithm for minimum cost submodular flow problems. *Mathematics of Operations Research* **14** (1989) 60–69.
91. S. Fujishige: Optimization over the polyhedron determined by a submodular function on a co-intersecting family. *Mathematical Programming* **42** (1988) 565–577.

92. A. Tamura, H. Takehara, K. Fukuda, S. Fujishige and M. Kojima: A dual interior primal simplex method for linear programming. *Journal of the Operations Research Society of Japan* **31** (1988) 413-430.
93. W.-T. Cui and S. Fujishige: A primal algorithm for the submodular flow problem with minimum-mean cycle selection. *Journal of the Operations Research Society of Japan* **31** (1988) 431-441.
94. S. Fujishige, N. Katoh and T. Ichimori: The fair resource allocation problem with submodular constraints. *Mathematics of Operations Research* **13** (1988) 164-173.
95. K. Murota and S. Fujishige: Finding a homotopy base for directed paths in an acyclic graph. *Discrete Applied Mathematics* **17** (1987) 157-162.
96. S. Fujishige: An out-of-kilter method for submodular flows. *Discrete Applied Mathematics* **17** (1987) 3-16.
97. S. Fujishige: From classic flow problems to “neoflow” problems. *Transactions of the Electronics, Information and Communication Engineers of Japan* **J70-A**, No. 2 (1987) 3-16 (in Japanese).
98. S. Fujishige: A capacity rounding algorithm for the minimum cost circulation problem — A dual framework of the Tardos algorithm. *Mathematical Programming* **35** (1986) 298-308.
99. S. Fujishige, A. Nakayama and W.-T. Cui: On the equivalence of the maximum balanced flow problem and the weighted minimax flow problem. *Operations Research Letters* **5** (1986) 207-209.
100. S. Fujishige: A decomposition of distributive lattices. *Discrete Mathematics* **55** (1985) 35-55.
101. S. Fujishige: Submodular systems and related topics. *Mathematical Programming Study* **22** (1984) 113-131.
102. S. Fujishige: A system of linear inequalities with a submodular function on $\{0, \pm 1\}$ vectors. *Linear Algebra and Its Applications* **63** (1984) 253-266.
103. S. Fujishige: On the subdifferential of a submodular function. *Mathematical Programming* **29** (1984) 348-360.
104. S. Fujishige: A characterization of faces of the base polyhedron associated with a submodular system. *Journal of the Operations Research Society of Japan* **27** (1984) 112-129.
105. S. Fujishige: Theory of submodular programs: a Fenchel-type min-max theorem and subgradients of submodular functions. *Mathematical Programming* **29** (1984) 142-155.
106. S. Fujishige: Structures of polyhedra determined by submodular functions on crossing families. *Mathematical Programming* **29** (1984) 125-141.
107. S. Fujishige: A note on Frank’s generalized polymatroids. *Discrete Applied Mathematics* **7** (1984) 105-109.

108. S. Fujishige and N. Tomizawa: A note on submodular functions on distributive lattices. *Journal of the Operations Research Society of Japan* **26** (1983) 309-318.
109. S. Fujishige: Canonical decompositions of symmetric submodular systems. *Discrete Applied Mathematics* **5** (1983) 175-190.
110. S. Fujishige: A note on the problem of updating shortest paths. *Networks* **11** (1981) 317-319.
111. M. Iri and S. Fujishige: Use of matroid theory in operations research, circuits and systems theory. *International Journal of Systems Science* **12** (1981) 27-54.
112. S. Fujishige: An efficient PQ-graph algorithm for solving the graph-realization problem. *Journal of Computer and System Sciences* **21** (1980) 63-86.
113. S. Fujishige: Lexicographically optimal base of a polymatroid with respect to a weight vector. *Mathematics of Operations Research* **2** (1980) 186-196.
114. S. Fujishige: Principal structures of submodular systems. *Discrete Applied Mathematics* **2** (1980) 186-196.
115. S. Fujishige: Polymatroidal dependence structure of a set of random variables. *Information and Control* **39** (1978) 55-72.
116. S. Fujishige: "Independent flow" problems and submodular functions. *Journal of the Faculty of Engineering, University of Tokyo A*, No. 16 (1978), pp.42-43 (in Japanese).
117. S. Fujishige: Algorithms for solving the independent-flow problems. *Journal of the Operations Research Society of Japan* **21** (1978) 189-204.
118. M. Iri, N. Tomizawa and S. Fujishige: Controllability and observability of linear systems with combinatorial constraints. *Transactions of the Institute of Instrument and Control Engineers* **13** (1977) 235-242 (in Japanese).
119. S. Fujishige: An algorithm for finding an optimal independent linkage. *Journal of the Operations Research Society of Japan* **20** (1977) 159-75.
120. S. Fujishige: A primal approach to the independent assignment problem. *Journal of the Operations Research Society of Japan* **20** (1977) 1-15.