Ratio of Functions: A Bibliographic review

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A Bibliographic review of ratio of affine functions/Fractional Programming Problems. In this bibliography, we present review of previous bibliographies This paper lists in alphabetical order by name of. the first author, and about 400 papers dealing with ratio of affine functions/fractional programming ,applications. This covers/considers mainly within the period 2005.2014; but at the same timeit also includes some references published up to the year2005 in bibliography. In compiling the author use use Mathematical ReviewsZentralblatt..MathematikInternet &Current Papers on Computer & Control; these are published/available as manuscripts since it may be easier for anyone accessing literature,; the references are classified into one or more of 12 sectionsIn undertaking of scope;nature,some error might occur, despite elaborate precautions/checks. The author shall be grateful for correction/comment about bibliography.

The following *sources* are used::

1. "Generalized fractions", books:53,68.96,99,121.189,205,237,296,318,378,383.

2. "Fractional Programming Application":4,5,20,22,36,41,42,44,49,52,63,70,75,78.80,86,88,104,

 $107.\ 110.112,\ 116,\ 117,\ 119,\ 133,\ 134,\ 142,\ 143,\ 147,148,\ 156,\ 194,\ 208,\ 209,\ 245.247,\ 252,\ 255,\ 258,\ 259,\ 268,\ 273,\ 294,\ 297.\ 299,\ 304,\ 308,\ 310,\ 311,\ 317,\ 327,\ 348,\ 370,\ 371,\ 377,\ 389.\ 397,\ 398$

3."Discrete/Mixed0-1Linear/NonLinearFractionalfunctions":36,37,65.92,94,98,107.210,211.255,276,280,281308,312.315,324,334,338.341,functions

4. "Discrete/integer fractional programs": 6.9,26,33,35.39.45,52,76,87.202.204.228.

6. "Duality.Theory":9.17,22,25,26.28, 43,56,67.81.83,102,109,121,122, 123,81, 188, 192, 193, 195,116, 219-

224, 227, 228, 232.234,236,237.239.244.251,257,262.263,307, 326, 342, 356, 368, 381,388,390 392,393.

7."Fractionalprograms";52.54,69,72.75,122.125.127262.267.274.287,294.295,297,298,328.332,338,344,346. 375.378.379,384.387,388..

8."Non.linear fractiional program":8,24,26,31,46,58.62,65,71.77,84,89.92,95,97,106,113.115.152,168,170,

172.174,180,186,187,191 249.284,302,322,338.346.355.357.368.374, 379, 380.396.

9. "Multibjective fractional programs":1.3,10,14,16,18,23,30,32,33,37,40,50,54,55.64,67.69,72,

73, 76, 81, 82, 85, 90, 101.103,118.122, 123, 127, 128, 130-132, 136, 138-141, 157, 158, 162-169 171, 182-185,190.204, 206, 207.211, 213, 216.236, 239, 240, 242, 250, 251, 256, 257,261, 266 269, 270,272, 276-279, 283.285.294.306 307 309319, 321.323, 325, 326, 333-336, 339, 343,395.

10. "Parametric programming(Bounded)":26.155 157 163.164.167,.

11."Fractionalprograms(fuzzy Approach)":1,28.29,37 38.77 121 125.155.159.160,162.167.213.216,243.248,

270.271.274.275.277.279..321.343.347 352.354.365.

12. "Transportation techniques(Mixed Integer constraints)": 2.27 29 32 35.36,38.39..44.47

54.57.58.62.64.68.69.72.73.81,85.87.89,92.94.96.97,98.104.111.114,116.117 150,161,167.179, 241,321, 322.

125..159

REFERENCES

1. Abo-Sinna, Mahmoud A.andBaky, IbrahimA.;: Fuzzy goal programming procedure for bilevel cases *Applied Mathematical Sciences* 4(2010)62, 3095-3105.

2. Abou-El-Enien, Tarek, H.M. and Saad, Omar, M. : *On* solution of a special type of large scale linear fractional multiple levelobjective programming problems uncertainty data. *Applied Mathematical Sciences* 4(2010)62, 3095.3105.

3. Addou, A.and Roubi, A.: Proximaltype methods with generalized Bregman functions applications to generalized fractional programming. *Optimization* 59(2010)7,pp1085-1105.311 Ioan Stancu-Minasian

4. Agarwal, S.;Snavely,N. and Seitz,S.M.: Fast algorithms for L∞ problems in multiview geometry. 26th IEEE Conference Computer Vision Pattern Recognition, CVPR, Anchorage,AK, pp 23-28 June 2008, Article number 4587713.

5. Agarwal, Sameer; Chandraker, Manmohan Krishna; Kahl, Fredrik; Kriegman: Practical global optimization for multiview geometry. In: A. Leonardis; H. Bischof A. Prinz Computer Vision - ECCV 2006, Part I, Lecture Notes in Computer Science, Vol 3951, pp. 592-605, SpringerVerlag Berlin Heidelberg,

6. Agrawal, K.M.: Solutions of mixed linear plus linear fractional programming problem. *Antarctica Journal of Mathematics* 7(2010)5, 527-531.

7. Ahlatcioglu,Mehmet;Tiryaki,Fatma:Interactive fuzzy programming decentralized two level linear fractional programming problems. *Omega 35 (2007) 4,pp 432-450*.

8. Ahmad, Izhar: Sufficient optimality conditions for fractional minimax programming. *The Aligarh Bulletin of Mathematics 22 (2003) 2,pp 113-117.*

9. Ahmad, I.: Optimality conditions and duality in fractional minimax programming involving generalized ρinvexity. *International Journal of Management and System 19*(2003) 165-180.

10. Ahmad, Izhar: Symmetric duality for multiobjective fractional variational problem with generalized invexity. *Information Science 176 (2006) 15,pp 2192-2207.*

11. Ahmad, I; Husain, Z.: On symmetric duality in nondifferentiable mathematical programming with F-convexity. *Journal of Applied Mathematics and Computing* 19(2005)1-2,371-384.

12. Ahmad, I; Husain, Z.: Optimality conditions and duality in nondifferentiable minimax fractional programming with generalized convexity. *Journal of Optimization Theory and Applications 129*(2006), pp 255-275.

13. Ahmad, I; Husain, Z.: Duality in nondifferentiable minimax fractional programming with generalized convexity. *Applied Mathematics and Computation*, 176 (2006) 2, 545 - 551.

14. Ahmad, I and Sharma, Sarita: Symmetric duality for multiobjective fractional variational problems involving cones. *European Journal of Operational Research 188 (2008) 3, 695-704*.

15. Ahmad, I.; Husain, Z; Al-Homidan, S.: Second-order duality in nondifferentiable fractional programming. *Nonlinear Analysis:12(2011)2, 1103-1110. 312* A Bibliography of Fractional Programming

16. Ahmad, I; Husain, Z. and Sharma, Sarita: Higher-order duality in nondifferentiable multiobjective programming. *Numerical Functional Analysis and Optimization* 28 (2007) 9-10, pp 989-1002.

17. Ahmad, I; Yaqub, Mohd. and Ahmed, A.: Symmetric duality for fractional variational problems with cone constraints. *Journal of Applied Mathematics and Computing* 23 (2007) 281-292.

18. Ahmed, A.: Sufficiency in nondifferentiable fractional minimax programming. *Aligarh Bulletin of Mathematics* 23 (2004)pp 117-122.

19. Alemayehu; Arora, R.R.: On the bilevel integer linear fractional programming problem. *Opsearch* 38(2001) *5,pp508-519*.

20. Alguliev, Rasim M.; Aliguliyev, Ramiz M. and Mehdiyev, Chingiz, A.: Sentence selection for generic document summarization using an adaptive differential evolution algorithm. *Swarm and Evolutionary Computation*(2011)4, 213-222.

21. Amaral, P.; Bomze, Immanuel M. and Júdice, Joaquim: Copositivity and constrained fractional quadratic problems. Optimization Online, http://www.optimizationonline.org/DB_HTML\2010\06\2641.html

22. Amaral, P.; Júdice, J. and Sherali, H.D.: A reformulation-linearization convexification algorithm for optimal correction of an inconsistent system of linear constaints. Computers & Operations Research, 35 (2008) 5, 1494-1509.

23. Amini Fasakhodi, A.; Nouri, S.H. and Amini, M.: Water resources sustainability and optimal cropping pattern in farming systems: A multi objective fractional goal programming approach. Water Resources Management 24(2010)15, 4639-4657.

24. Ammar, E.E.: On solutions and duality of nonlinear nonsmooth fractional programs. Applied Mathematics and Computation. 172 (2006) 2, 865-875.

25. Ammar, E.E.: On optimality and duality theorems of nonlinear disjunctive fractional minmax programs. European Jounal of Operational Research 180 (2007) 3, 971-982.

26. Ammar, E.E.: On the optimality of nonlinear fractional disjunctive programming problems. Computers and Mathematics with Applications 53 (2007) 10, 1527-1537.

27. Ammar, E.E.: A study on optimality and duality theorems of nonlinear generalized disjunctive fractional programming. Mathematical and Computer Modelling 48 (2008) 1-2, 69-82.

28. Ammar, E.E.: Duality theorems of multiobjective generalized disjunctive fuzzy nonlinear fractional programming. International Journal of Mathematical Combinatorics 2(2011), 1-14. 313 Ioan Stancu-Minasian

29. Ammar, E.E. and Khalifa, H.: On fuzzy parametric linear fractional programming problem. Journal of Fuzzy Mathematics 17 (2009) 3, 555-568.

30. An, Le Thi Hoai; Tao, Pham Dinh; Nam, Nguyen Canh and Muu, Le Dung: Methods for optimizing over the efficient and weakly efficient sets of an affine fractional vector optimization program. Optimization 59 (2010) 1, 77-93.

31. Antczak, T: Modified ratio objective approach in mathematical programming. Journal of Optimization Theory and Applications 126 (2005) 1, 23-40.

32. Antczak, Tadeusz: A modified objective function method for solving nonlinear multiobjective fractional programming problems. Journal Mathematical Analysis Applications, 322(2006) 2, 971-989.

33. Antczak, Tadeusz: Generalized fractional minimax programming with B-(p,r)-invexity. Computers and Mathematics with Applications 56(2008)6, 1505-1525.

34. Arora, Ritu and Arora, S.R.: An algorithm for non-linear multi-level integer programming problems. International Journal of Computing Science and Mathematics 3(2010)3, 211-225.

35. Arora, Ritu and Arora, S.R.: An algorithm for solving an integer linear fractional/quadratic bilevel programming problem. AMO-Advanced Modeling and Optimization 14(2012)1, 57-78.

36. Arora, Sudha and Arora, S.R.: Branch and bound algorithm for the warehouse location problem with the objective function as linear fractional. Opsearch 43 (2006) 1, 18-30.

37. Arora, S. and Gupta, R.: A hybrid fuzzy-goal programming approach to multiple objective linear fractional programming problems. Opsearch 40 (2003) 3, 202-218.

38. Arora, S.R. and Gaur, Anuradha: A fuzzy algorithm for multilevel programming problems. Opsearch 47(2010)2, 118-127.

39. Arora, S.R. and Narang, Ritu: 0-1 bilevel fractional programming problem with independent followers. International Journal of Optimization:Theory, Methods and Applications 1 (2009) 2, 225-238.

40. Arora, S.R.; Shanker, Ravi and Malhotra, Neelam: A goal programming approach to solve linear fractional multi-objective set covering problem. Opsearch 42 (2005) 2, 112-125.

41. Arsham, Hossein; Gradisar, Miro and Stemberger, Mojca Indihar: Linearly constrained global optimization: a general solution algorithm with applications. Applied Mathematics and Computation 134 (2003) 2-3, 345-361. 314 A Seventh Bibliography of Fractional Programming

42. Arslan, N. Abdullah and Eğecioğlu, Ömer: Dynamic programming based approximation algorithms for sequence alignment with constraints. INFORMS Journal on Computing 16 (2004) 4, 441-458.

43. Azeem, Y.A.: ε -optimality and duality for integer fractional programming. Journal of Advanced Research and Applied Mathematics (JARAM) 4(2012)1, 38-48.

44. Azizi, Hossein: The interval efficiency based on the optimistic and pessimistic points of view. Applied Mathematical Modelling 35(2011)5, 2384-2393.

45. Badra, N.M. General 0-1 fractional programming problems using fuzziness. Advances in Modelling and Analysis A 42 (2005) 5-6, 49-64.

46. Badra, N.M.: Polynomial fractional programming optimization. Advances in Modelling and Analysis A 43 (2006) 1-2, 57-69.

47. Bajalinov, E. and Rácz. A: Scaling problems in linear-fractional programming. Proceedings of the International Conference on Information Technology Interfaces, ITI. Cavtat/Dubrovnik; 19-22 June 2006, pp. 495-499.

48. Bajalinov, E. and Rácz. A: Scaling problems in linear-fractional programming. Acta Mathematica. Academiae Paedagogicae Nyiregyháziensis (N.S.) 25 (2009) 2, 283-301.

49. Balasundaram, Balabhaskar and Butenko, Sergiy: On a polynomial fractional formulation for independence number of a graph. Journal of Global Optimization 35 (2006) 3, 405-421.

50. Bao, T.Q.; Gupta, P. and Mordukhovich, B. : Necessary conditions in multiobjective optimization with equilibrium constraints. Journal of Optimization Theory and Applications, 135(2007)2, 179-203.

51. Barbu, B. and Pop, Bogdana: Soluții WEB pentru optimizarea liniară fracționară. Proceeding of ADL 2006, Editura Universității Naționale de Apărare "Carol I", București, 2006, 165-170.

52. Basile, Francesco; Chiacchio, Pasquale and Giua, Alessandro: An optimization approach to Petri net monitor design. IEEE Transactions on Automatic Control 52 (2007) 2, 306-311.

53. Basu, I.: Optimizing the state highway patrol units. Deployment through goal programming with fractional criterion. Multiple Criteria Decision Making Through Goal Programming, 114-133. Ph.D. Thesis, India, 1997.

54. Bazine, M.; Bennani, A. and Gadhi, N.: Fuzzy optimality conditions for fractional multiobjective bilevel problems under fractional constraints. Numerical Functional Analysis and Optimization 32(2011)2, 126-141. 315 Ioan Stancu-Minasian

55. Bătătorescu, Anton; Preda Vasile and Beldiman, Miruna: Nondifferentiable minimax fractional programming with square root terms. The 7th Balcan Conference on Operational Research, Constanța, Romania, May 25-28, 2005, Proceedings, Bucharest 2007, pp. 23-37.

56. Bătătorescu, Anton; Beldiman, Miruna; Antonescu Iulian and Ciumara, Roxana: On nondifferentiable minimax fractional programming with square root terms. Proocedings/8th Balkan Conference on Operational Research, Serbia, September 14th-17th , 2007, pp. 45-55.

57. Bătătorescu, Anton, Beldiman, Miruna, Antonescu Iulian and Ciumara, Roxana: Optimality and duality for a class of nondifferentiable minimax fractional programming problems. Yugoslav Journal of Operations Research 19 (2009) 1, 49-61.

58. Beck, Amir and Ben-Tal, Aharon: On the solution of the Tikhonov regularization of the total least squares problem. SIAM Journal on Optimization 17 (2006)1, 98-118.

59. Beck, Amir and Teboulle, Mark: A convex optimization approach for minimizing the ratio of indefinite quadratic functions over an ellipsoid. Mathematical Programming, Ser. A, 118(2009)1, 13-35.

60. Beck, Amir and Teboulle, Mark: On minimizing quadratically constrained ratio of two quadratic functions. Journal of Convex Analysis 17(2010)3&4, 789-804.

61. Beck, Amir; Ben-Tal, Aharon and Teboulle, Mark: Find a global optimal solution for a quadratically constrained fractional quadratic problem with applications to the regularized total least squares. SIAM Journal for Matrix Analysis and Applications 28(2006)2, 425-445.

62. Beldiman, Miruna; Stancu-Minasian, Ioan M.; Preda, Vasile; Stancu, Andreea Mădălina and Paraschiv, Alina: On a semiparametric dual model of a program involving n-set functions and univexity. International Journal of Comptational Science 3 (2009) 3, 251-262.

63. Ben-Tal, A.; Teboulle, M and Charnes, A: The role of duality in optimization problems involving entropy functionals with applications to information theory. Journal of Optimization Theory and Applications 58 (1988) 2, 209-223.

64. Benson, P. Harold: A global optimization approach for generating effcient points for multiobjective concave fractional programs. Journal of Multi-Criteria Decision Analysis 13 (2005) 1, 15-28.

65. Benson, P. Harold: Fractional programming with convex quadratic forms and functions. European Journal of Operational Research 173 (2006) 2, 351-369. 316 A Seventh Bibliography of Fractional Programming

66. Benson, P. Harold: Maximizing the ratio of two convex functions over a convex set. Naval Research Logistics. 53 (2006) 4, 309-317.

67. Benson, P. Harold: A simplicial branch and bound duality-bounds algorithm for the linear sum-of-ratios problem. European Journal of Operational Research 182 (2007) 2, 597-611.

68. Benson, P. Harold: Solving sum of ratios fractional programs via concave minimization. Working Paper, University of Florida, Department of Decision and Information Sciences, March (2006). Also in: Journal of Optimization Theory and Applications 135 (2007) 1, 1-17.

69. Benson, P. Harold: Branch-and-bound outer approximation algorithm for sum-of ratios fractional programs. Journal of Optimization Theory and Applications 146 (2010) 1, 1-18.

70. Bešlić, S.: Fractional programming in optimization the operation efficiency of shipowner. Pomorstvo 17 (2003), 75-83.

71. Bhardwaj, D; Bhardwaj, V.K. and Agarwal, V.P.: A parametric approach to solve the quadratic fractional problems. Acta Ciencia Indica. Mathematics 34 (2008) 3, 1405- 1409.

72. Bhargava, Shifali and Sharma, K.C.: On multiobjective fractional programming. Ganita Sandesh 17 (2003) 1, 1-8.

73. Bhatnagar, P.: Study on efficient solution of multi-objective nonlinear programming problem involving semilocally pseudolinear functions. International Conference on Modeling, Optimization and Computing, ICMOC 2010; Durgapur, West Bengal, 28-30 October 2010; Volume 1298, 2010, 512-515.

74. Billionnet, Alain: Mixed integer programming for the 0-1 maximum probability model. European Journal of Operational Research 156 (2004) 1, 83-91.

75. Billionnet, Alain: Optimal selection of forest patches using integer and fractional programming. Operational Research 10 (2010) 1, 1-26.

76. Billionnet, Alain and Djebali, Karima: Résolution d'un problème combinatoire fractionnaire par la programmation linéaire mixte. RAIRO-Operations Research 40 (2006) 2, 97-111.

77. Biswas, Animesh and Bose, Koushik: Applications of fuzzy programming method for solving nonlinear fractional programming problems with fuzzy parameters. P. Balasubramanian and R. Uthayakumar (Eds.), Communications in Computer and Information Science, Volume 283 CCIS; Issue 1, 2012, pp. 104-113. 317 Ioan Stancu-Minasian

78. Blanquero, R; Carrizosa, E. and Conde, E.: Inferring efficient weights from pairwise comparison matrices. Mathematical Methods of Operations Research 64 (2006) 2, 271-284.

79. Bomze, Immanuel M.: Optimization of functions with rank-two variation over a box. European Journal of Operational Research 161(2005) 3, 598-617.

80. Bosio, Sandro: On a new class of nonlinear set covering problems arising in wireless network design. 4OR 6 (2008) 2, 183-186.

81. Boţ, Radu Ioan; Chares, Robert and Wanka, Gert: Duality for multiobjective fractional programming problems. Preprint 12/2006. Chemnitz University of Technology. Also in: Nonlinear Analysis Forum 11 (2006)2, 185-201.

82. Boţ, Radu Ioan; Chares, Robert and Wanka, Gert: Comparison between different duals in multiobjective fractional programming. Preprint 14/2006. Chemnitz University of Technology, Also: Central European Journal of Mathematics 5 (2007) 3, 452-469.

83. Boţ, Radu Ioan; Grad, Sorin-Mihai, and Wanka, Gert: Duality for optimization problems with entropy-like objective functions. Journal of Information&Optimization Sciences 26 (2005) 2, 415-441.

84. Boţ, Radu Ioan; Hodrea, Ioan Bogdan and Wanka, Gert: Farkas-type results for fractional programming problems. Nonlinear Analysis: Theory, Methods & Applications, 67 (2007) 6, 1690-1703.

85. Brauers, W.K.: Normalisation in multiobjective optimization: A general overview. International Journal of Management and Decision Making 8(2007)5-6, 461-474.

86. Brimberg, J; Hansen, P.; Laporte, G.; Mladenović, N. and Urošević, D.: The maximum return-oninvestment plant location problem Journal of the Operational Research Society 59 (2008) 3, 399-406.

87. Busygin, Stanislav; Prokopyev, Oleg A. and Pardalos, M. Panos: Feature selection for consistent biclustering via fractional 0-1 programming. Journal of Combinatorial Optimization 10 (2005) 1, 7-21.

88. Bykadorov, Igor; Ellero, Andrea, Funari, Ștefania and Moretti, Elena: A fractional optimal control problem for maximizing advertising efficiency. Department of Applied Mathematics, University of Venice. Working Paper n. 158/2007, November 2007.

89. Bykadorov, I.; Ellero, A.; Funari, S. and Moretti, E.: Dinkelbach approach to solving a class of fractional optimal control problems. Journal of Optimization Theory and Applications. 142(2009)1, 55-66. 316

90. Caballero, Rafael and Hernández, Mónica: PFLMO (Programación Fractional Lineal Multiobjetivo). Computer Software. R.P.I.: MA 903-2003.

91. Caballero, Rafael and Hernández, Mónica: Restoration of efficiency in a goal programming problem with linear fractional criteria. European Journal of Operational Research 172(2006)1, 31-39.

92. Calvete, I. Herminia and Galé, Carmen: Optimality conditions for the fractional/quadratic bilevel problem. Monografias del Seminario Matemático García de Galdeano 31 (2004) 285-294. 93. Calvete, Herminia and Galé, Carmen: Bilevel fractional programming. In: C.A. Floudas and P.M. Pardalos (Eds.). Enciclopedia of Optimization. Kluwer Academic Publishers, pp. 135-137, 2007.

94. Calvete, Herminia I.; Galé, Carmen and Mateo, Pedro M.: A genetic algorithm for solving linear fractional bilevel problems. Annals of Operations Research 166(2009)1, 39-56.

95. Cambini, Alberto and Martein, Laura: On the maximal domains of pseudoconvexity of some classes of generalized fractional functions. Report n.310, Department of Statistics and Applied Mathematics, University of Pisa, 2008.

96. Cambini, Alberto; Martein, Laura and Schaible, Siegfrid: Pseudoconvexity, pseudomonotonicity and the generalized Charnes-Cooper transformation. Pacific Journal of Optimization 1 (2005) 2, 265-275.

97. Cambini, Riccardo and Sodini, Claudio: A unifying approach to solve a class of parametricallyconvexifiable problems. In: Igor V. Konnov, Dinh The Luc and Alexander M. Rubinov (Eds.). Generalized Convexity and Related Topics. Springer-Verlag, Berlin Heidelberg, 2007.

98. Cambini, Riccardo and Sodini, Claudio: A unifying approach to solve some classes of rank-three multiplicative and fractional programs involving linear functions. European Journal of Operational Research 207(2010)1, 25-29.

99. Carosi, Laura and Martein, Laura: Some classes of pseudoconvex fractional functions via the Charnes-Cooper transformation. In: Igor V. Konnov, Dinh The Luc and Alexander M. Rubinov (Eds.).Vol 583, pp 177-188, Springer-Verlag, Berlin Heidelberg, 2007.

100. Carosi, Laura and Martein, Laura: On the pseudoconvexity and pseudolinearity of some classes of fractional functions. Optimization 56 (2007) 3, 385-398. 319 Ioan Stancu-Minasian

r field subsystem of a power tower system. Solar Energy 31 (1983) 5, 503-510

101. Gao, Ying: Optimality and duality for a class of multiobjective generalized fractional programming problems. Pure and Applied Mathematics (Xi'an) 27(2011)4, 477-485.

102. Gao, Ying , Wei-dong: Optimality conditions and duality for non differentiable generalized fractional programming problems. Applied Mathematics Journal of Chinese Universities, 23 (2008) 3, 331-344.

103. Gao, Ying and Rong, Wei-dong: Optimality conditions and duality in multiobjective generalized fractional programming with generalized convexity. Pacific Journal of Optimization 5 (2009) 3, 403-413.

104. Garaix, Thierry; Artigues, Christian; Feillet, Didier: Optimization of occupancy rate in dial-a-ride problems via linear fractional column generation. Computers&Operations Research 38(2011)10, 1435-1442.

105. Gaubert, Stéphane; Katz, Ricardo D. and Sergeev, Sergěi: Tropical linearfractional programming and parametric mean payoff games. Journal of Symbolic Computation. 47(2012)12, 1447-1478.

106. Gaur, A. and Arora, S.R.: Solving non-linear fractional programming problem with a special structure using approximation. AMO-Advanced Modeling and Optimization 11(2009)2, 153-167.

107. Gavrilă, Camelia and Teodorescu, Narcisa: On modeling the reliability of a water distribution system using linear stochastic fractional programming. Proceedings 8th Balkan Conference on Operational Research

108. Ge, Weiyan; Zhang, Junshan and Wieseltier, J.E.: Channel-aware distributed scheduling for adhoc communications with capture. 41st Asilomar Conference Pacific Grove, CA, 4-7 November 2007, .

109. Ghanem, Bernard and Ahuja, Narendra: Dinkelbach NCUT: An efficient frame for solving normalized cuts problems priors and convex constraints. International Journal of Computer Vision 89 (2010) 1, 40-55.

110. Ghosh, S. and Mujumdar, P.P.: Risk minimization in water quality control problem of a river system. Advances in Water Resources 29(2006) 3, 458-470.

111. Gómez, T.; Hernández, M.; León, M.A.: Un problema de ordenanción forestal resuelto mediante un modelo metas fraccional lineal. Revista Espáñola de Estudios Agrosociales y Pesqueros 207 (2005) 79-103.

112. Gómez, T.; Hernández, M.; León, M.A. and Caballero, R.: A forest planning problem solved via a linear fractional goal programming model. Forest Ecology and Management 227 (2006) 1-2, 79-88.

113. Gorbachuk, V.M.: The equilibrium of Cournot-Nash and Cournot-Stackelberg-Nash for the fractional objective functions. Teoriya optimalnykh resheniy (6) 2007, 117-124. 329 Ioan Stancu-Minasian

114. Gorbachuk, V.M.: The cartel optimum and the reasonable Cournot-Nash equilibrium for fractional objective functions. Journal of Automation and Information Sciences 40(2008)12, 61-69.

115. Gorbachuk, V.M.; Garkusha, N.M. and Anisimova, L.A.: The generalized and reasonable Cournot-Nash equilibrium for the fractional objective functions. Dynamical system modeling and stability investigation (in Ukrainian), T. Shevchenko KNU, Kiev, 2007.

116. Gotoh, Jun-ya and Takeda, Akiko: Minimizing loss probability bounds for portfolio selection. European Journal of Operational Research 217(2012)2, 371-380.

117. Gountia, S. and Sahoo, S.K.: Studies on clustering based on minimal ratio spanning tree in a fuzzy graph. International Journal of Computer Applications 25(2011)8, 8-13.

118. Gramatovici, S.: Duality for minimax fractional programming with generalized rhoinvexity. Mathematical Reports 8(2006) 2, 151-166.

119. Guerriero, F., Pugliese, L.: Multi-dimensional labelling approach to solve linear fractional elementary shortest path problem with time windows. Optimization Methods and Software 26(2011)2, 295-340.

120. Gulati, T.R. and Geeta: Duality in nondifferentiable multiobjective fractional programming problem with generalized invexity. Journal of Applied Mathematics and Computing 35(2011)1-2, 103-118.

121. Gulati, T.R. and Saini, Himani: Higher-order ($\alpha \beta \rho d_{,,,,F}$)-convexity and its application in fractional programming. European Journal of Pure and Applied Mathematics 4(2011)3, 266-275.

122. Gulati, T.R. and Saini, Himani: Sufficiency and duality in nondifferentiable multiobjective fractional programming. International Journal of Mathematics in Operational Research 3(2011)5, 510-523. V

123. Gulati, T.R.; Husain, I. and Ahmed, A.: Symmetric dual multiobjective fractional programs with generalized convexity. The Aligarh Bulletin of Mathematics 24 (2005) 1- 2, 35-43.

124. Gupta, Pankaj and Mehlawat, Mukesh Kumar: An algorithm for a fuzzy transportation problem to select a new type of coal for a steel manufacturing unit. Top 15(2007)1, 114-137.

125. Gupta, Pankaj and Mehlawat, Mukesh Kumar: Duality for a convex fractional programming under fuzzy environment. International Journal of Optimization: Theory, Methods and Applications1(2009) 3, 291-301. 330

126. Gupta, Pankaj and Singh, Sanjeet: Approximate multiparametric sensitivity analysis of the constraint matrix in linear-plus-linear fractional programs. Applied Mathematics and Computation179 (2006) 2, 662-671.

127. Gupta, Pankaj;Shiraishi,Shunsuke and Yokoyama, Kazunori:ɛ-optimality without constraint qualification for multiobjective fractional program.Journal of Nonlinear and Convex Analysis 6 (2005) 2, 347-357.

128. Gupta, Pankaj; Mehra, Aparna; Shiraishi, Shunsuke and Yokoyama, Kazunori: ε-optimality for minimax programming problems. Journal of Nonlinear and Convex Analysis 7 (2006) 2, 277-288.

129. Gupta, S.N.: A chance constrained approach to fractional programming with random numerator. Journal of Mathematical Modelling and Algorithms 8 (2009) 4, 357-361.

130. Guu, S.M. and Wu, Y.K.: A two-phase approach for solving the multiple objective linear fractional programming problems. In: Fuzzy Logic for Applications to Complex Systems, 1995.

131. Güzel, N. and Sivri, M: Taylor series solution of multiobjective linear fractional programming problem. Trakya University Journal Science 6 (2005) 2, 80-87.

132. Güzel, N. and Sivri, M: Proposal of a solution to multiobjective linear fractional programming problems. Sigma Mühendislik ve Fen bilimleri Dergisi, Yildiz Teknik Üniversitesi, Istambul, sayi Haziran, 2005.

133. Han, Qiaoming;Du, Donglei; Vera, Juan and Zuluaga, Luis F.: Improved bounds for the symmetric rendezvous value on the line. Operations Research 56(2008)3, 772-782.

134. Hemachandra, N. and Narahari, Y.: A mathematical programming approach to optimal Markovian switching of Poisson arrival streams to queueing systems. Queueing Systems 36 (2001) 4, 443-461.

135. Hladik, Milan: Generalized linear fractional programming under interval uncertainty. European Journal of Operational Research 205 (2010) 1, 42-46.

136. Ho, S.-C.: Minimax fractional programming under B-(p,r)-invexity. Far East Journal of Mathematical Sciences 44(2010)1, 55-79.

137. Ho, Shun-Chin: Sufficient conditions and duality theorems for nondifferentiable minimax fractional programming. ISRN Mathematical Analysis, 2011, Art. ID786978, 22 pp. 331 Ioan Stancu-Minasian

138. Hoa, T.N.; Phuong, T.D. and Yen, N.D.: Number of connected components of the solution sets in linear fractional vector optimization. Preprint 2002/41, Institute of Mathematics, Hanoi, Vietnam.

139. Hoa, T.N.; Phuong, T.D. and Yen, N.D.: On the parametric affine variational inequality approach to linear fractional vector optimization problems. Vietnam Journal of Mathematics 33 (2005) 4, 477-489.

140. Hoa, T. N.; Huy, N.Q.; Phuong, T. D. and Yen, N. D.: Unbounded components in the solution sets of strictly quasiconcave vector maximization problems. Journal of Global Optimization 37 (2007) 1, 1-10.

141. Hoa, Tran Ninh; Phuong, Ta Duy and Yen, Nguyen Dong: Linear fractional vector optimization problems with many components in the solution sets. Preprint 2004/05, Institute of Mathematics, Hanoi, Vietnam.

142. Horasanli, Mehmet: On the determinants of portfolio choise: An experimental study via fractional programming. Journal of the School of Business Administration, Istanbul University 37 (2008) 1, 39-48.

143. Hotsh, J.-Y. and Takeda, A.: Minimizing loss probability bounds for portfolio selection. European Journal of Operational Research 217(2012)2, 371-380.

144. Hu, Qingjie; Chen, Yu and Jian, Jinbao: Second-order duality for non-differentiable minimax fractional programming. International Journal of Computer Mathematics 89(2012)1, 11-16.

145. Hu, Qing-jie; Xiao, Yun-hai and Chen, Nei-ping: Optimality and duality on fractional multi-objective programming under semilocal E-convexity. Chinese Quarterly Journal of Mathematics 24 (2009) 2, 200-210.

146. Hu, Qingjie; Yang, Gang and Jian, Jinbao: On second order duality for minimax fractional programming. Nonlinear Analysis: Real World Applications 12(2011)6, 3509-3514.

147. Hua, G.; Cheng, T.C.E. and Wang, S.Y. : The maximum capture per unit cost location problem. International Journal of Production Economics 131(2011)2, 568-574.

148. Hua, Guowei; Wang, Shouyang; Chan, Chi Kin and Hou, S.H.: A fractional programming model for international facility location. (JIMO) 5 (2009) 3, 629-649.

149. Huang, J.-M.: A class of generalized nonlinear - semi infinite fractional programming. Journal-Shangqiu Teachers College 23 (2007) 3, 40-56. 332 A Seventh Bibliography of Fractional Programming

150. Huang, T.-Y.; Lai, H.-C. and Schaible, S.: Optimization theory for set functions in nondifferentiable fractional programming with mixed type duality. Taiwanese Journal of Mathematics 12(2008)8, 2031-2044.

151. Husain, I. and Jabeen, Z.: Second order duality for fractional programming with support functions. Opsearch 41 (2004) 2, 121-134.

152. Husain, I. and Jabeen, Z.: On fractional programming containing support functions. Journal of Applied Mathematics and Computing 18 (2005) 1-2, 361-376.

153. Husain, I. and Jabeen, Z.: Continuous-time fractional programming. Mathematical and Computer Modelling 42 (2005) 5-6, 701-710.

154. Husain, Z.; Ahmad, I. and Sharma, Sarita: Second order duality for minmax fractional programming. Optimization Letters 3 (2009) 2, 277-286.

155. Inuiguchi, M.: A necessity measure optimization approach to linear programming problems with oblique fuzzy vectors. Kybernetika (Praha) 42 (2006) 4, 441-452.

156. Inuiguchi, Masahino and Mizoshita, Fumiki : Qualitative and quantitative data envelopment analysis with interval data. Annals of Operations Research 195(2012)1, 189-220.

157. Iskander, M.G.: A possibility programming approach for stochastic fuzzy multiobjective linear fractional problems. Computers and Mathematics with Applications 48 (2004) 10-11, 1603-1609.

158. Jaberipour, Majid and Khorram, Esmaile: Solving the sum-of-ratios problem by a harmony search algoritm. Journal of Computational and Applied Mathematics 234 (2010) 3, 733-742.

159. Jain, Madhuri and Saksena, P.K.: Time minimizing transportation problem with fractional bottleneck objective function. Yugoslav Journal of Operations Research 22(2012)1, 115-129.

160. Jain, Sanjay: Close interval approximation of piecewise quadratic fuzzy numbers for fuzzy fractional program. Iranian Journal of Operations Research 2(2010)1, 77-88.

161. Jain, Sanjay: An algorithm for fractional trans-shipment problem. Bulletin of Pure and Applied Mathematics 4(2010)2, 168-177.

162. Jain, Sanjay and Lachhwani, Kailash: Sum of linear and fractional multiobjective programming problem under fuzzy rules constraints. Australian Journal of Basic and Applied Sciences 2(2008)4, 1204-1208.

163. Jain, Sanjay and Lachhwani, Kailash: An algorithm for multi-objective linear plus fractional program. ASOR Bulletin 28 (2009) 2, 2-8. 333 Ioan Stancu-Minasian

164. Jain, S. and Lachhwani, K: Multi objective fractional programming problem: Fuzzy programming approach. Proceedings of National Academy of Sciences, India-Physical Sciences, Vol.79, part III, 2009.

165. Jain, S. and Lachhwani, K: Solution on multiobjective fractional program using fuzzy approach. Proceedings of the National Academy of Sciences India Section APhysical Sciences 79(2009)3, 267-272.

166. Jain, Sanjay and Lachhwani, Kailash: Linear plus fractional multiobjective programming problem with homogeneous constraints using fuzzy approach. Iranian Journal of Operations Research 2(2010)1, 41-49.

167. Jain, Sanjay and Lachhwani, Kailash: Fuzzy set approach to solve multi-objective linear plus fractional programming problem. International Journal of Operations Research 8(2011)3, 15-23.

168. Jain, Sanjay and Mangal, Adarsh: Algorithm for fractional programming problem with homogeneous constraints. Ganita Sandesh 17 (2003) 2, 55-60.

169. Jain, Sanjay and Mangal, Adarsh: Solution of a generalized fractional programming problem. The Journal of the Indian Academy of Mathematics 26 (2004) 1, 15-21.

170. Jain, Sanjay and Mangal, Adarsh: Modified Fourier elimination technique for fractional programming problem. The Aligarh Bulletin of Mathematics 23 (2004) 1-2, 17-23.

171. Jain, Sanjay and Mangal, Adarsh: Solution of a multiobjective fractional programming problem. The Journal of the Indian Academy of Mathematics 28 (2006) 1, 133-141.

172. Jain, Sanjay and Mangal, Adarsh: Gauss elimination technique for fractional programming problem. Journal of Indian Society of Statistics and Operations Research 29(2008)1-4.

173. Jain, Sanjay; Mangal, Adarsh and Parihar, P.R.: Linear plus linear fractional programming with nondifferentiable function. Journal of Combinatorics, Information & System Sciences 30 (2005) 1-4, 139-149. 174. Jain, Sanjay; Mangal, Adarsh and Parihar, P.R.: On the posynomial linear plus fractional programming problem. The Mathematics Student 75 (2006) 1-4, 187-196.

175. Jain, Sanjay; Mangal, Adarsh and Parihar, P.R.: Solution of fuzzy linear fractional programming problem. Opsearch 48(2011)2, 129-135.

176. Javaid, Shakeel: Stochastic fractional transhipment programming. International Journal of Applied Engineering Research 2 (2007) 4, 671-683. 334 A Seventh Bibliography of Fractional Programming

177. Javaid, Shakeel and Gupta, S. N.: Capaciated stochastic transshipment problem with prohibited routes. International Journal of Agricultural and Statistical Sciences 4 (2008) 1, 127-142.

178. Javaid, S.; Gupta, S. N. and Khalid, M.M.: An uncapacitated stochastic transhipment problem for maximizing marketing efficiency. International Journal of Management and Systems 14 (1998) 3, 257-264.

179. Javaid, S.; Gupta, S. N. and Khalid, M.M.: Stochastic transhipment problem with fractional functional objective. Journal of Decision and Mathematical Sciences (India) 4 (1999) 1-3, 1-10.

180. Jayswal, Anurag: Non-differentialble minimax fractional programming with generalized α -univexity. Journal of Computational and Applied Mathematics 214 (2008) 1, 121-135.

181. Jayswal, Anurag: Optimality and duality for nondifferentiable minimax fractional programming with generalized convexity. ISRN Applied Mathematics, vol. 2011, Article ID 491941, 19 pages, 2011..

182. Jayswal, Anurag and Kumar, D.: On nondifferentiable minimax fractional programming involving generalized ($\alpha \rho d_{,,,C}$)-convexity. Communications on Applied Nonlinear Analysis 18(2011)1, 61-77.

183. Jayswal, Anurag and Stancu-Minasian, Ioan: Multiobjective fractional programming problems involving semilocally type-I univex functions. Southeast Asian Bulletin of Mathematics (to appear).

184. Jayswal, A.; Ahmad, I. and Kumar, D.: Nondifferentiable minimax fractional programming problem with nonsmooth generalized convex functions. Communications on Applied Nonlinear Analysis 18(2011)4, 57-75.

185. Jaiswal, Anurag; Kumar, Rajnish and Kumar, Dilip: Multiobjective fractional programming problems involving () ρ -- (η ,r,p θ)-invex function. Journal of Applied Mathematics Computing 39(2012)1-2, 35-51.

186. Jeflea, Antoneta: Studiul unor metode de re<mark>zolva</mark>re a problemelor de programare fractionară. In: Teorie și Practică Economică în Dezvoltarea Economică a României. Ed. "Europolis", Constanța 2002, 236-248.

187. Jeflea, Antoneta: A parametric study for solving nonlinear fractional problems. Analele Științifice ale Universității Ovidius Constanța Ser. Mat. 11 (2003) 2, 87-92. 335 Ioan Stancu-Minasian

188. Jeyakumar, V. and Li, G.Y.: Robust duality for fractional programming problems with constraint-wise data uncertainty. Journal of Optimization Theory and Applications 152(2011)2, 292-303.

189. Jeyaraman, K.: A modified ratio algorithm to solve linear fractional programming problems. A Ph.D. Thesis, Alagappa University, Karaikudi, India.

190. Ji, Ying; Li, Yijun and Lu, Pengyu: A global optimization algorithm for sum of quadratic ratios problem with coefficients. Applied Mathematics and Computation 218(2012)19, 9965-9973.

191. Ji, Ying; Zhang, Ke-Cun and Qu, Shao-Jian: A deterministic global optimization algorithm. Applied Mathematics and Computation 185 (2007) 1, 382-387.

192. Jia, Ji Hong: Optimality and duality for non-convex fractional problems. Pure Applied Mathematics (Xi'an) 24 (2008) 2, 270-277.

193. Jia, J.H. and Zhang, Q.J.: Optimality and duality for a class of nonconvex fractional programming problems (Chinese), Xi'an Jianzhu Keji Daxue Xuebao/Journal of Xi'an University of Architecture & Technology 33(2001)2, pag.199.

194. Jia, L. and Luo, C.: Solving intelligent decision making problem using genetic algorithm. 2010 International Conference on Machine Vision and Human-Machine Interface, MVHI2010, 2010 Article number 5532728, 288-291.

195. Jiang, Jin Xi; Jin, Ai Lian and Jin, Guang Zhi: Duality for a fractional programming problem under a pseudo-invexity condition. Mathematics in Practice and Theory 37 (2007) 12, 166-172.

196. Jiao, Hongwei and Shen, Peiping: A note on the paper "Global optimization of nonlinear sum of ratios". Applied Mathematics and Computation 188 (2007) 2, 1812-1815.

197. Jiao, Hong-wei; Guo, Yun-rui and Chen, Yong-qiang: Global optimization algorithm for nonlinear sum of ratios problems. (Chinese). Chinese Quarterly Journal of Mathematics 23 (2008) 4, 499-505.

198. Jiao, Hongwei; Guo, Yunrui and Shen, Peiping: Global optimization of generalized linear fractional programming with nonlinear constraints. Applied Mathematics and Computation 183 (2006) 2, 717-728.

199. Jiao, Hong Wei; Xue, Zhen and Shen, Pei Ping: Global optimization algorithm for a class of problems for sums of linear ratios. (Chinese). Journal of Henan Normal University, Natural Science 35 (2007) 1, 16-18, 33.

200. Jiao, H.-W.; Yin. J. and Chen, Y.: Global optimization algorithm for a class of sum of linear ratios problems. Henan Science 26(2008)3, 263-267. 336 A Seventh Bibliography of Fractional Programming

201. Luo, Y. and Yang, F.: Best solutions of fractional programming problems with linear bounding conditions. Journal Zhongkai Agrotech. Coll. 11 (1998) 4, 37-41. 345 Ioan Stancu-Minasian

202. Maachou, Nacéra: Branch and bound with penalties method for integer quadratic fractional programs. Les Annales ROAD (Researche Opérationnelle et Aide à la Décision). Nr. 47, novembre 2009.

203. Maachou, Nacéra and Moulaï, Mustapha: An exact method for a discrete quadratic fraction maximum problem. In: Hoai An Le Thi; Pascal Bouvry and Tao Pham Dinh (Eds.). Modelling, Computation and Optimization in Information Systems and Management Sciences, Vol. 14 pp. 197-203, Springer-Verlag, Berlin, Heidelberg 2008.

204. Maachou, Nacéra and Moulaï, Mustapha and Mezghiche, Abdelhak: Discrete quadratic fractional vector maximum problem. Les annales ROAD (Recherche Opérationnelle et Aide à la Décision). Nr. 12, novembre 2006.

205. Mandal, T.: Constrained Fractional Programming Problem. Ph. D Dissertation 2000, National Institute of Technology, Jamshedpur, Ranchi University, Ranchi, India.

206. Martein, Laura and Bertolucci, Valerio: A sequential method for a class of bicriteria problems. In: Igor V. Konnov, Dinh The Luc and Alexander M. Rubinov (Eds.). Generalized Convexity and Related Topics. Lecture Notes in Economics and Mathematical Systems. Vol 583, pp 347-358, Springer-Verlag, Berlin Heidelberg, 2007.

207. Martein, Laura and Carosi, Laura : The sum of a linear and a linear fractional function: Pseudoconvexity on the nonnegative orthant and solution methods. Bulletin of the Malaysian Mathematical Science Society 35(2012)2A, 591-599.

208. Mathis, Frank H. and Mathis, Lenora Jane: A nonlinear programming algorithm for hospital management. SIAM Review 37(1995) 2, 230-234.

209. Mavrotas, G.; Diakoulaki, D. and Caloghirou, Y.: A combinatorial multicriteria approach for corporate funding under policy restrictions. Operational Research 1(2001)3, 299-314.

210. Mehra, A; Chandra, S. and Bector, C.R.: Acceptable optimality in linear fractional programming with fuzzy coefficients. Fuzzy Optimization and Decision Making 6 (2007) 1, 5-16.

211. Meyyappan, T. and Sakthivel, S. :Ratio algorithm for optimizing sum of linear fractional functions. Modelling and Applied Computing 2(2011)2, 83-98.

212. Miao, X. and Wang, Y.: Intuitionistic fuzzy multiattribute group decision making models using mathematical programming approach. Journal of Computational Information Systems 4(2008)6, 2793-2801.

213. Mishra, Babita and Singh, S.K.: Fractional programming approach for solving a mixed fuzzy-stochastic multiobjective programming problem. European Journal of Scientific Research 54(2011)4, 547-559. 346 A Seventh Bibliography of Fractional Programming

214. Mishra, Savita: Weighting method for bi-level linear fractional programming problems. European Journal of Operational Research 183 (2007) 1, 296-302.

215. Mishra, Savita and Ghosh, Ajit: Interactive fuzzy programming approach to bi-level quadratic fractional programming problems. Annals of Operations Research 143 (2006) 1, 251-263.

216. Mishra, S. K.: Duality for multiple objective fractional subset programming with generalized (F, ρ , σ , θ)-V-type-I functions. Journal of Global Optimization 36(2006)4, 499-516.

217. Mishra, S.K. and Rautela, J.S.: On nonlinear multiple objective fractional programming involving semilocally type-I univex functions. Optimization Letters 3 (2009) 2, 171-185.

218. Mishra, S.K. and Rautela, J.S.: On nondifferentiable minimax fractional programming under generalized α -type I invexity. Journal of Applied Mathematics and Computing 31(2009)1-2, 317-334.

219. Mishra, S.K. and Rueda, N.G.: Second-order duality for non differentiable minimax programming involving generalized type I functions. Journal of Optimization Theory and Applications 130 (2006) 3, 479-488.

220. Mishra, S.K. and Singh, A.K.: On optimality and duality for non differentiable minimax generalized convexity. Communications on Applied Nonlinear Analysis 18(2011)2, 99-106.

221. Mishra, S.K. and Singh, A.K.: Optimality and duality for nondifferentiable minimax fractional optimization problems with generalized invexity. Annals of the University of Bucharest (mathematical series) 2(LX) (2011)1, 95-103.

222. Mishra, S.K. and Upadhyay, B.B.: Efficiency and duality in nonsmooth multiobjective fractional programming involving η -pseudolinear functions. Yugoslav Journal of Operations Research 22(2012)1, 3-8.

223. Mishra, S.K. and Upadhyay, B.B.: Nonsmooth minimax fractional programming involving η - pseudolinear. Optimization (to appear).

224. Mishra, S.K. and Verma, R.U.: Generalized ($\rho \eta$, θ)-invex functions and optimality conditions for multiple objective fractional subset programming. Advances in Nonlinear Variational Inequalities 15(2012)1, 73-87. 347 Ioan Stancu-Minasian

225. Mishra, S.K.; Jaiswal, Banaras, M. and Pankaj: Optimality conditions for multiple objective fractional subset programming with invex and related non-convex functions. Communications on Applied Nonlinear Analysis 17(2010)3, 89-101.

226. Mishra, S.K.; Pant, R.P. and Rautela, J.S.: Generalized α -invexity and nondifferentiable minimax fractional programming. Journal of Computational and Applied Mahematics 206 (2007) 1, 122-135.

227. Mishra, S.K.; Pant, R.P. and Rautela, J.S.: Generalized α -univexity and duality for nondifferentiable minimax fractional programming. Nonlinear Analysis: Theory, Methods & Applications 70(2009)1, 144-158.

228. Mishra, S.K.; Rautela, J.S. and Shukla, Kalpana: Nonlinear multiple objective fractional programming involving semi-locally type I- α -preinvex and related functions. Panamerican Mathematical Journal 19 (2009) 3, 51-67.

229. Mishra, S.K; Wang, S.Y. and Lai, K.K.: Symmetric duality for a class of non differentiable multiobjective fractional variational problems. Journal of Mathematical Analysis and Applications 333 (2007)2, 1093-1110. 230. Mishra, S.K; Wang, S.Y. and Lai, K.K.: Optimality conditions for multiple objective fractional subset programming with (F , ρ , σ , θ)-V-type-I and related non-convex functions. Mathematical and Computer Modelling 48 (2008)7-8, 1201-1212.

231. Mishra, S.K.; Wang, S.Y.; Lai, K.K. and Shukla, Kalpana: Minimax fractional programming involving type I and related functions. International Journal of Operations Research 6(2009)2, 45-54.

232. Mishra, Vibha and Kishore, Newal: Duality in multi-objective fractional programming with generalized (F, ρ) –convexity. Progress of Mathematics (Varanasi) 39 (2005) 1-2, 49-59.

233. Mititelu, Ştefan: Kuhn-Tucker conditions and duality for multiobjective fractional programs with n-set functions. The 7th Balcan Conference on Operational Research, Constanța, Romania, May 25-28, 2005, Proceedings, Bucharest 2007, pp. 123-132.

234. Mititelu, Ștefan: Efficiency and duality for multiobjective fractional problems in optimal control with ρquasiinvexity. Conference Proceedings of the International Conference "Trends and Challenges in Applied Mathematics" Bucharest, România, June 20-23, 2007. Ed. Matrix Rom. Bucharest 2007, pp. 267-270.

235. Mititelu, Ștefan: Efficiency conditions for multiobjective fractional variational problems. Applied Sciences 10 (2008), 162-175. 348 A Seventh Bibliography of Fractional Programming

236. Mititelu, Ştefan and Postolache, Mihai: Mond-Weir dualities with lagrangians for multiobjective fractional and non-fractional variational problems. Journal of Advaced Mathematical Studies 3 (2010) 1, 41-58.

237. Mititelu, Ştefan and Postolache, Mihai: Nonsmooth invex functions via upper directional derivative of Dini. Journal of Advanced Mathematical Studies 4(2011)1, 57-76.

238. Mititelu, Ștefan and Postolache, Mihai: Efficiency and duality for multitime vector fractional variational problems on manifolds. Balkan Journal of Geometry and Its Applications 16(2011)2, 90-101.

239. Mititelu, Ştefan and Stancu-Minasian, I.M.: Efficiency and duality for multiobjective fractional variational problems with (rho,b)-quasiinvexity. Proceedings /8th Balkan Conference on Operational Research [BALCOR 2007], Belgrade-Zlatibor, Serbia, September 14th-17th, 2007, pp. 67-74. Belgrade: Faculty of Organizational Sciences, 2008.

240. Mititelu, Ştefan and Udrişte, C.: Vector fractional programming with quasiinvexity on Riemannian manifolds. 12th WSEAS CSCC Multiconf. Heraklion, Crete Island, Greece, July 22-25, 2008; New Aspects of Computers, Part III, pp. 1107-1112.

241. Moanță, Dorina: Some aspects on solving a linear fractional transportation problem. Journal of Applied Quantitative Methods 2 (2007) 3, 343-348.

242. Mohapatra, R.N. and Verma, R.U.: The ε -optimality conditions for multiobjective fractional programming problems. Communications on Applied Nonlinear Analysis 19(2012)1, 99-108.

243. Molai, Ali Abbasi; Tajik, S.; Yahyaii, M. and Aliannejadi, S. : Solving fuzzy linear fractional programming problems based on the extension principle. Journal of Advanced Research and Applied Mathematics (JARAM) 4(2012)1, 68-83.

244. Mond, B.: Mond-Weir duality. Pearce, Charles (ed.) et al., Optimization. Structure and Applications. New York, NY: Springer. Optimization and Its Applications 32 157-165 (2009).

245. Mosig, Axel; Chen, Julian J.-L. and Stadler, Peter F.: Homology search with fragmented nucleic acid sequence patterns. In : Raffaele Giancarlo and Sridhar Hannenhalli (Eds.) Algorithms in Bioinformatics. 7th International Workshop, WABI 2007, Philadelphia, PA, USA, September 8-9, 2007. Proceedings. Lecture Notes in Computer Science, Volume 4645/2007, pp. 335-345, Springer Berlin/ Heidelberg, 2007. 349 Ioan Stancu-Minasian

246. Munson, T.S.: Mesh shape-quality optimization using the inverse mean-ratio metric: Tetrahedral proofs. Technical Memorandum ANL/MCS-TM-275. Argonne National Laboratory Argonne (2004).

247. Munson, Todd: Mesh shape-quality optimization using the inverse mean-ratio metric. Mathematical Programming. Ser.A, 110 (2007) 3, 561-590.

248. Nachammai, Al. and Thangaraj, P.: Solving fuzzy linear fractional programming problem using metric distance ranking. Applied Mathematical Sciences 6(2012)26, 1275-1285.

249. Nagarajarao, I.H. and Ushakanthi, A.V.: On a refined fractional programming problem. Journal of Indian Academy of Mathematics 31(2009)1, 213-219.

250. Nahak, C.: Duality for multiobjective variational control and multiobjective fractional variational control problems with pseudoinvexity. Journal of Applied Mathematics and Stochastic Analysis, Volume 2006, Article ID 62631, 15 pages, 2006.

251. Nahak, C. and Nanda, S.: Sufficient optimality criteria and duality for multiobjective variational control problems with V-invexity. Nonlinear Analysis 66 (2007) 7, 1513-1525.

252. Neely, M.J. : Online fractional programming for Markov decision systems. 49th Annual Allerton Conference on Communication, Control and Computing, Alerton (2011), Article number 6120189, pp. 353-360.

253. Negm, Ahmed Labib; Khairy Hamed El-Eshmawiy; Heba Yassen Abd Elfatah and Laila Moustafa El-Shiraif: The optimal egyptian indicative cropping pattern using nonlinear-fractional programming. Journal of Applied Sciences Research 2 (2006) 2, 91-99.

254. Neogy, S.K.; Das, A.K. and Das, P.: On linear fractional programming problem and its computation using a neural network model. Journal of Mathematical Modelling and Algorithms 6 (2007) 4, 577-590.

255. Nguyen, H.; Franke, K. and Petrović, S.: Improving effectiveness of intrusion detection by correlation feature selection. ARES 2010 – 5th International Conference on Availability, Reliability and Security, 15-18 February 2010, Krakow, Article number 5438117, 17-24.

256. Niculescu, Cristian: Optimality and duality in multiobjective fractional programming involving ρsemilocally type I-preinvex and related functions. Journal of Mathmatical Analysis and Applications 335 (2007) 1, 7-19. 350 A Seventh Bibliography of Fractional Programming

257. Niculescu, Cristian: Sufficient optimality conditions and duality in multiobjective fractional programming involving generalized d-type-I functions. Bulletin Mathématique de la Société des Sciences Mathématiques de Roumanie 53 (101) (2010) 1, 25-34.

258. Nie, Jiawang; Demmel, James and Gu, Ming: Global minimization of rational functions and the nearst GCDs. Journal of Global Optimization 40 (2008) 4, 697-718.

259. Nikjah, R. and Beaulieu, N.C.: Strict suboptimality of selection amplify-and-forward relaying under global channel information. IEEE Transactions on Communications 57(2009)10, 2918-2922.

260. Nobakhtian, S.: Mixed duality without constraint qualification for nonsmooth fractional programming. Numerical Functional Analysis and Optimization 28 (2007) 11- 12, 1355-1367.

261. Nobakhtian, Soghra: Optimality and duality for nonsmooth multiobjective fractional programming with mixed constraints. Journal of Global Optimization 41 (2008) 1, 103-115.

262. Nobakhtian, S. and Pouryayevali, M.R.: Optimality conditions and duality for nonsmooth fractional continuous-time problems. Journal of Optimization Theory and Applications 152..(2012)1, 245-255.

263. O'Brien, G.C. and Wu, L.: Alternative transformations and duality of linear fractional programming. In: Operations Research/Management Science at work. Erhan Kozan; Azuma Ohuki (Eds.) International Series in Operations Research and Management Science, Kluwer Academic Publishers 2002, ISSUE 43, pp.333-350.

264. Ogawa, Masaru and Ishii, Hiroaki: Benchmarking method considering complementary network externality. Scientiae Mathematicae Japonicae 58 (2004) 3, 577- 586.

265. Ojha, Deo Brat: Some results on symmetric duality of mathematical fractional programming with generalized F-convexity complex spaces. Tamkang Journal of Mathematics 36 (2005) 2, 159-165.

266. Ojha, Deo Brat and Mukherjee, R.N.: Some results on symmetric duality of multiobjective programming with generalized (F,ρ) invexity. European Journal of Operational Reasch 168 (2006) 2, 333-339.

267. Ojha, D.B.; Singh, Anil; Pandey, S.P. and Ahmed, N.: Symmetric duality for mathematical programming in complex spaces with second order F-univexity. Research Journal of Applied Sciences, Engineering and Technology 2(2010)4, 326-337. 351 Ioan Stancu-Minasian

268. Omata, T.: Fingertip positions of a multifingered hand. Robotics and Automation, 1990. Proceedings, 1990 IEEE International Conference on Robotics and Automation, Vol.3, 1562-1567.

269. Pal, B.B., and Gupta, S: A goal programming approach for solving interval valued multiobjective fractional programming problems using genetic algorithm. Proceedings of IEEE 10th Colloquium and International Conference on Industrial and Information Science 2008 (ICIIS 2008) 440, 1-6.

270. Pal, B.B. and Gupta, S: A genetic algorithm approach to fuzzy goal programming formulation of fractional multiobjective decision making problems. 2009 1st International Conference on Advanced Computing, ICAC 2009, Chennai 13-15 December 2009, Article number 5378218, 55-60.

271. Pal, B.B. and Moitra, B.N.: Fuzzy approach to linear fractional goal programming. In: Proc. of Intelligent Computing and VLSI, 2001, 107-112.

272. Pal, B.B. and Sen, S.: A goal programming procedure for solving interval valued multiobjective fractional pogramming problems. Proceedings of the 2008 16th International Conference on Advanced Computing and Communications, ADCOM 2008, Article number 4760464, 297-302.

273. Pal, B.B. and Sen, S.: A linear goal programming procedure for academic personal management problems in university system. IEEE Region 10 Colloquium and 3rd International Conference on Industrial and Information Systems, ICIIS 2008, Kharagpur 8-10 December 2008, Article number 4798452

274. Pal, B.B.; Chakraborti, D. and Biswal, P. : A genetic algorithm method to fuzzy goal programming formulation based on penalty function for Academic Personnel Management in University System. 2010 2nd International Conference on Computing, Communication and Networking Technologies, ICCCNT 2010; Karur, 29-31 July 2010. Article number 5591805.

275. Pal, B.B.; Kumar, M. and Sen S.: A linear fuzzy goal programming approach for solving patrol manpower deployment planning problems-A case study. ICIIS2009- 5 th International Conference on Industrial and Information Systems 2009, Peradeniya, 28-31 December 2009. Conference Proceedings 2009, Article number 5429858, pp. 244-249.

276. Pal, Bijay Baran; Moitra, Bhola Nath and Sen, Shyamal: A linear goal programming approach to multiobjective fractional programming with interval parameter sets. International Journal of Mathematics in Operational Research 3(2011) 6, 697-714. 352 A Seventh Bibliography of Fractional Programming

277. Pal, B.B.; Sen, S. and Moitra, B.N.: Using Dinkelbach approach for solving multiobjective liner fractional programming problems. Proc. of 2nd National Conference on Recent Trends in Information Systems, RETIS'08 J.U., Lolkata, W.B. 2008, 149-152.

278. Pal, B.B.; Sen, S. and Moitra, B.N.: Solving multiobjective fractional programming problems using fuzzy goal programming, Proc. of First Indian Conference on Recent Trends in Information Systems, IConTIMES'08, JIS College, Kalyani, W.B., 2008, 40- 50.

279. Pandey, D. and Kumar Sandeep: Fuzzy multi-objective fractional goal programming using tolerance. International Journal of Mathematical Sciences and Engineering Applications 5.(2001)1, 175-187.

280. Pandey, Pooja and Punnen, Abraham, P.: A simplex algorithm for piecewise-linear fractional programming problems. European Journal of Operational Research 178 (2007) 2, 343-358.

281. Pandey, Pooja and Punnen, Abraham, P.: A simplex algorithm for network flow problems with piecewise linear fractional objective function. Opsearch 46 (2009) 4, 359- 389.

282. Pandian, P.: Sufficient optimality conditions and duality for nonlinear programming problems involving generalized F-convex functions. International Journal of Mathematical Sciences and Engineering Applications 4(2010)4, 363-375.

283. Paraschiv, Alina; Dogaru, Liliana and Panaitescu, Eugenia: On a semiparametric duality model in multiobjective fractional subset programming involving generalized (F,b, φ , ρ , θ)-univex n-set functions. Mathematical Reports (București) 10(60),(2008) 4, 347-358.

284. Paraschiv, Alina; Dogaru Liliana and Atanasiu, Virginia: Some sufficient optimality conditions for a fractional mathematical programming problem involving nset functions. Analele Universității din București 58 (2009) 2, 153-172.

285. Patel, R.B.: On proper efficiency and duality for multiobjective fractional programs involving (b, F, ρ)-convex functions. The Mathematics Education (Siwan) 40 (2006) 3, 187-198.

286. Patel, Raman: Mixed type duality for multiobjective fractional programming problems involving (b, F, ρ) – convex functions. Jñānābha 36 (2006) 31-42.

287. Patel, Raman: Duality for multiobjective fractional variational problems with arbitrary norms involving (b,F,ρ) -type I functions. Far East Journal of Applied Mathematics 27 (2007) 2, 185-207. 353 Ioan Stancu-Minasian

288. Patel, Raman: Optimality and duality for multiobjective fractional programming involving semilocally b-preinvex type-I functions. Far East Journal of Applied Mathematics 29 (2007) 3, 415-432.

289. Patel, Raman: Optimality and duality for multiobjective fractional variational control problems involving () b F, , ρ - type-I functions. Journal of Combinatorics, Information & System Sciences 32 (2007) 1-4, 189-207.

290. Patel, Raman: Mixed type duality for multiobjective fractional variational control problems with (b, F,ρ)-convexity. Far East Journal of Applied Mathematics 33 (2008) 2, 271-294.

291. Patel, Raman: Mixed type duality for multiobjective fractional variational problems involving (b,F,p)-convexity. Journal of Combinatorics, Information & System Sciences: 35(2010)1-2, 59-79.

292. Pei, Youggang; Gu, Minna and Shen, Peiping: Global optimization for the sum of convex ratios problem over nonconvex feasible region. Mathematica Applicata (Wuhan) 23(2010)3, 582-588.

293. Peña Garcia, T.and Castrodeza, Chamorro, C.: Programación por metas lexicográficas con criterios fraccionales no lineales. Anales de Estudios Económicos y Empresariales, 17(2007), 157-172.

294. Peña, Teresa; Castrodeza, Carmen and Lara, Pablo: Environmental criteria in pig diet formulation with multi-objective fractional programming. In: Andres Weintraub, Carlos Romero, Trond Bjørnadal, Rafael Epstein and Jaime Miranda (Eds.) Handbook of Operations Research in Natural Resources, pp. 53-68. International Series in Operations Research & Management Science, Vol.99. Springer US, 2007.

295. Peña, T.; Lara, P. and Castrodeza, C.: Multiobjective stochastic programming for feed formulation. Journal of the Operational Research Society 60 (2009) 12, 1738-1748

296. Peng, Jianwen and Long, Xianjun: A remark on preinvex functions. Bulletin of the Australian Matematical Society 70 (2004) 3, 397-400.

297. Peng, Xiang and King, Irwin: Robust BMPM training based on second-order cone programming and its application in medical diagnosis. Neural Networks 21(2008)2-3, 450-457.

298. Peris, Guillermo and Marzal, András: Normalized global alignment for protein sequences. Journal of Theoretical Biology 291(2011)1, 22-28.

299. Pettypool, Diane M. and Karathanos, Patricia: An equity check. European Journal of Operational Research 157 (2004) 2, 465-470. 354 A Seventh Bibliography of Fractional Programming

300. Phillips, A: Quadratic fractional programming:Dinkelbach method. In: C.A. Floudas and P.M. Pardalos (Eds.) Enciclopedia of Optimization. Kluwer Academic Publishers, pp. 2107-2110, 2007.

301. Stanojević, B. and Stancu-Minasian, I.M.: Evaluating fuzzy inequalities and solving fully fuzzified linear fractional programs. Yugoslav Journal of Operations Research 22(2012)1, 41-50.

302. Stefanov, Stefan M.: Minimization of a convex linear-fractional separable function subject to a convex inequality constraint or linear inequality constraint and bounds on 363 Ioan Stancu-Minasian the variables. AMRX Applied Mathematics Research eXpress. Volume 2006, pages 1- 24.

303. Strodiot, Jean-Jacques; Crouzeix, Jean-Pierre; Ferland, Jacques A. and Van Hien Nguyen: An inexact proximal point method for solving generalized fractional programs. Journal of Global Optimization 42 (2008) 1, 121-138.

304. Subramanian, Shivaram and Sherali, Hanif D.: A fractional programming approach for retail category price optimization. Journal of Global Optimization 48(2010)2,263-277.

305. Sun, Jian-she and Ye, Liu-qing.: The optimal conditions of the linear fractional programming problem with constraint. Chinese Quarterly Journal of Mathematics 21 (2006) 4, 553-556.

306. Suneja, S.K.; Srivastava, Manjari K. and Bhatia, Meetu: Higher order duality in multiobjective fractional programming with support functions. Journal of Mathematical Analysis and Applications 347 (2008) 1, pp. 8-17.

307. Taa, A.: Optimality conditons for vector optimization problems of a difference of convex mappings. Journal of Global Optimization 31 (2005) 3, 421-436.

308. Takaya, Yoshihiro and Konno, Hiroshi: A maximal predictability portfolio subject to a turnover constraints. Asia-Pacific Journal of Operational Research 27(2010)1, 1-13.

309. Tammer, Christiane and Göpfert, Alfred: Theory of vector optimization. In: Matthias Ehrgott and Xavier Gandibleux (Eds.) Multi Criteria Optimization: State of the Art Annotated Bibliographic Surveys. International Series in Operations Research & Management Science. Vol. 52, pp. 1-70, Spriger, New York, 2003.

310. Tan, Zhiyi and Zhang, An: A mathematical programming approach for online hierarchical scheduling. 3rd International Conference on Combinatorial Optimization and Applications, COCOA 2009, Huangshan 10-12 June 2009, Lecture Notes in Computer Science, Volume 5573, 2009, pp. 438-450.

311. Tang, W.; Wang, Y. and Liang, J.: Fractional programming model for portfolio with probability criterion. Proceedings of the IEEE International Conference on Systems, Man and Cybernetics; Yasmine Hammamet, 6-9 October 2002, 6(2002), 516-519.

312. Tantawy, S.F.: Using feasible directions to solve linear fractional programming problems. Australian Journal of Basic and Applied Science 1 (2007) 2, 109-114.

313. Tantawy, S.F.: A new method for solving linear fractional programming problems. Australian Journal of Basic and Applied Sciences 1(2007)2, 105-108.

314. Tantawy, S.F.: A new procedure for solving linear fractional programming problems. Mathematical and Computer Modelling 48 (2008) 5-6, 969-973. 364 A Seventh Bibliography of Fractional Programming

315. Tantawy, S.F. and Saad, O.M.: A new method for solving the sum of linear and linear fractional programming problems. Journal of Information & Optimization Sciences, 29 (2008) 5, 849 – 857.

316. Tantawy, S.F. and Sallam, R.H.: Objective space for multiple linear fractional programming with equal denominators. Journal of the Egyptian Mathematical Society 17(2009)2, 251-257.

317. Tcha, Dong-wan; Lee, Bum-il and Lee, Young-duck: Processors selection and traffic splitting in a parallel processors system. Acta Informatica 29(1992) 5, 415-423.

318. Teodorescu, Narcisa: Fractional programming with multiple objective functions (Romanian). Doctoral Thesis. The Institute of Mathematical Statistics and Applied Mathematics, Bucharest, Romania, 2008.

319. Teodorescu, Narcisa: Optimizing the sum of linear fractional functions.In: Proceedings. 10th Workshop of Department of Mathematics and Computer Science, Technical University of Civil Engineering, Bucharest, Romania 23 May 2009, Editura MATRIX ROM, București 2009.

320. Thangaraj, Radha; Pant, Millie; Bouvry, Pascal and Abraham, Ajith : Solving stochastic programming problems using modified differential evolution algorithms. Logic Journal of the IGPL 20(2012)4, 732-746.

321. Tkacenko, Alexandra I.: The multiobjective transportation fractional programming model. Computer Science Journal of Moldova 12 (2004) 3, 397-405.

322. Tkacenko, Alexandra I.: The generalized algorithm for solving the fractional multiobjective transportation problem. ROMAI J. 2 (2006) 1, 197-202.

323. Toksari, Duran M.: Taylor series approach to fuzzy multiobjective linear fractional programming. Information Sciences 178 (2008) 4, 1189-1204.

324. Toksari, Duran M.: Taylor series approach for bi-level linear fractional programming. Selçuk Journal of Applied Mathematics 11(2010)1, 63-69.

325. Tong, Zi Shuang: Saddle-point-type optimality criteria for a class of generalized fractional programming problems with B-(p,r)-invexity functions. (Chinese) Mathematics in Practice and Theory 38 (2008) 17, 132-137.

326. Tong, Zi Shuang: Duality for a generalized fractional programming under nonsmooth generalized () F, , $\rho \theta$ -d-univexity (Chinese). Mathematics in Practice and Theory 39 (2009) 14, 168-174. 365 Ioan Stancu-Minasian

327. Tracy, D.L.and Chen, B.: A generalized model for weight restrictions in data envelopment analysis. Journal of the Operational Research Society (JORS) 56 (2005) 4, 390-396.

328. Trapp, Andrew; Prokopyev, Oleg A. and Busygin, Stanislav: Finding checkerboard patterns via fractional 0-1 prgramming. Journal of Combinatorial Optimization 20(2010)1, 1-26.

329. Tsai, Jung-Fa: Global optimization of nonlinear fractional programming problems in engineering design. Engineering Optimization 37 (2005) 4, 399-409.

330. Tuteja, G.C.: Programming with a non-differentiable constraint. Opsearch 41 (2004) 4, 271-297.

331. Udhayakumar, A.; Charles, Vincent and Uthariaraj Rhymend, V.: Stochastic simulation-based genetic algorithm for chance constrained fractional programming problem. International Journal of Operational Research 9(2010)1, 23-38.

332. Ujvári, Miklós: Simplex-type algorithm for optimizing a pseudo--linear quadratic fractional function over a convex polytope. Operations Research Reports No. 2006-01, September 2006, Eötvös Loránd University of Sciences, Department of Operations Research. Also published in: PU.M.A. 18(2007)1-2, pp.1899-1909.

333. Ursulenko, Oleksii; Butenko, Sergiy and Prokopyev, Oleg A.: A global optimization algorithm for solving the minimum multiple ratio spanning tree problem. Journal of Global Optimization (to appear).

334. Verma, Ram U.: General parametric sufficient optimality conditions for multiple objective fractional subset programming relating to generalized ($\rho \eta A_{,,}$)-invexity. Numerical Algebra, Control and Optimization (NACO) 1(2011)3, 333-339.

335. Verma, R.U.: The optimality condition for multiple objective fractional subset programming based on generalized (ρ , η)-invex functions. Advances in Nonlinear Variational Inequalities 14(2011)1, 61-72.

336. Verma, Ram U.: Role of ($\rho \eta A$,,)-invexity to ϵ -optimality conditions for multiple objective fractional programming. Applied Mathematics and Computation 218(2012)17, 8444-8452.

337. Wagner, Michal R.: Online lot-sizing problems with ordering, holding and shortage costs. Operations Research Letters 39(2011)2, 144-149.

338. Wang, Chun-Feng and Shen, Pei-Ping: A global optimization algorithm for linear fractional programming. Applied Mathematics and Computation 204 (2008) 1, 281-287. 366 A Seventh Bibliography of Fractional Programming

339. Wang, Chun-Feng; Liu, San-Yang and Shen, Pei-Ping: Global optimization for sum of geometric fractional functions. Applied Mathematics and Computation 216(2010)8, 2263-2270.

340. Wang, Fusheng; Zhang, Kecun and Tan, Xiaolong: A fractional programming algoritm based on conic quasi-Newton trust region method for unconstrained minimization. Applied Mathematics and Computation 181 (2006) 2, 1061-1067.

341. Wang, Guangmin; Jiang, Bing; Zhu, Kejun and Wan, Zhongping: Global convergent algorithm for the bilevel linear fractional-linear programming based on modified convex simplex method. Journal of Systems Engineering and Electronics 21(2010)2, 239-243.

342. Wang, Hai Jun and Cheng, Cao-Zong: Duality and Farkas-type results for DC fractional programming with DC constraints. Mathematical and Computer Modelling 53(2011)5-6, 1026-1034.

343. Wang, Hsiao-Fan and Wu, Kuang-Yao: Preference approach to fuzzy linear inequalities and optimizations. Fuzzy Optimization and Decision Making 4 (2005) 1, 7-23.

344. Wang, Qin; Yang, Xiaoguang and Zhang, Jianzhong: A class of inverse dominant problems under weighted l∞ norm and improved complexity bound for Radzik's algorithm. Journal of Global Optimization 34 (2006) 4, 551-567.

345. Wang, Rong Bo; Zhang, Qing Xiang and Feng, Qiang: Saddle point theorems for multiobjective fractional programming with generalized uniform Bp. - (p,e)-invexity functions. Journal of Inner Mongolia Normal University. Nei Mongol Shifan Daxue Xuebao. Ziran Kexue. Hanwen Ban, 37 (2008), issue 6, 722-732.

346. Wang, Rong Bo; Zhang, Qing Xiang and Feng, Qiang: Optimality conditions for a class of multiobjective semi-infinite fractional programming problems. (Chinese) Numerical Mathematics. A Journal of Chinese Universities. 32(2010)3, 244-253.

347. Wang, S.-P. : Multi-attribute decision making method based on inter-valued trapezoidal intuitionistic fuzzy number. Kongzhi yu Juece/Control and Decision 27(2012)3, 455-458, 463.

348. Wang, W.; Jin, S.; Gao, X.; Wong, K.K. and Mckay, M.R.: Optimal distributed space-time coding strategy for two-way relay networks. IEEE Wireless Communications and Networking Conference, WCNC, art. No. 5506484. 367 Ioan Stancu-Minasian

349. Wang, Xing Guo: Optimality conditions for generalized fractional programming with (p,r)-invexity. (Chinese). Sichuan Shifan Daxue Xuebao Ziran Kexue Ban 28 (2005) 1, 66-69.

350. Wang, Xing Guo: The Kuhn-Tucker type necessary conditions for a class of nondifferentiable generalized fractional programming problems.(Chinese) Journal of Inner Mongolia Normal University. Nei Monfol Shifan Daxue Xuebao. Ziran Kexue. Hanwen Ban. 37 (2008) 1, 11-14.

351. Wang, Yan-Jun and Zhang, Ke-Cun: Global optimization of nonlinear sum of ratios problem. Applied Mathematics and Computation 158 (2004) 2, 319-330.

352. Wang, Z.; Li, K.W. and Xu, J.: A mathematical programming approach to multiattribute decision making with interval-valued intuitionistic fuzzy assessment information. Expert Systems with Applications 38(2011)10, 12462-12469.

353. Wang, Z. and Xu, J.: A fractional programming method for interval-valued intuitionistic fuzzy multiattribute decision making. 2010 Chinese Control and Decision Conference CCDC 2010, 2010, Article number 5498947, 636-641.

354. Wang, Z.; Xu, J. and Wang, W.: Intuitionistic fuzzy multiple attribute group decision making base on projection method. 2009 Chinese Control and Decision Conference, CCDC 2009, Guilin, 17-19 June 2009, Article number 5191812, 2919-2924.

355. Wen, C.-F. and Wu, H.-C.: A parametric method for solving continuous-time linear fractional programming problems. 3rd International Joint Conference on Computational Sciences and Optimization, CSO 2010: Theoretical Development and Engineering Practice; Huangshan, Anhui 28-31 May 2010. Vol.2, 2010, 3-7.

356. Wen, Ching-Feng and Wu, Hsien-Chung: Approximate solutions and duality theorems for continuoustime linear fractional programming problems. Numerical Functional Analysis and Optimization 33(2012)1, 80-128.

357. Wen, Ching-Feng and Wu, Hsien-Chung: Using the Dinkelbach-type algorithm to solve the continuoustime linear fractional programming problems. Journal of Global Optimization 49(2011)2, 234-263.

358. Wen, Ching-Feng and Wu, Hsien-Chung: Using the parametric approach to solve the continuous-time linear fractional max-min problems. Journal of Global Optimization. 54(2012)1,129-153.

359. Wen, Ching-Feng; Lur, Yung-Yih and Guu, Sy-Ming: A numerical method for solving a class of continuous-time linear fractional programming problems. CSO, Vol.2, 368 A Seventh Bibliography of Fractional Programming pp. 761-765, 2009 International Joint Conference on Computational Sciences and Optimization (cso 2009) Sanya, Hainan, China, April 24-26, 2009.

360. Wen, Ching-Feng; Lur, Yung-Yih; Guu, Sy-Ming and Lee, Stanley E.: On a recurrence algorithm for continuous-time linear fractional programming problems. Computers and Mathematics with Applications 59(2010)2, 829-852.

361. Wolkowicz, Henry: Generating eingenvalue bounds using optimization. Pardalos, Panos M. (ed.) et al., Non--linear analysis and variational problems. In Honor of George Isac. Berlin: Springer, Springer Optimization and Its Applications 35, 465-490 (2010).

362. Wu, Hui Xian and Luo, He Zhi: Kuhn-Tucker type necessary optimality conditions for a class of nonsmooth minimax fractional programming problems. (Chinese) Journal of Mathematical Research and Exposition 27 (2007) 4, 709-714.

363. Wu, K.-Y.: Taylor series approach to max-ordering solutions in multi-objective linear fractional programming. 2009 International Conference on Information Management, Innovation Management and Industrial Engineering, ICIII 2009, Volume 4, 26-27 Decembre 2009, Xi'an, 2009, Article number 5370279, 97-100.

364. Wu, Wei-Ying; Sheu, Ruey-Lin and Birbil, S. Ilker: Solving the sum-of-ratios problem by a stochastic search algorithm. Journal of Global Optimization 42 (2008) 1, 91-109.

365. Wu, Y.-K.: Optimizing a linear fractional programming problem with max-product fuzzy relational equation with linear/non-linearconstraints. Journal of Chinese Institute of Industrial Engineers 25(2008)4, 314-325.

366. Wu, Yan-Kuen; Guu, Sy-Ming and Liu, Julie Yu- Chih: Optimizing the linear fractional programming problem with max-Archimedean t-norm fuzzy relational equation constraints. In: Proceedings of the IEEE International Conference Fuzzy Systems, London 2007, 1-6.

367. Wu, Yan-Kuen; Guu, Sy-Ming and Liu, Julie Yu- Chih: Reducing the search space of a linear fractional programming problem under fuzzy relational equations with maxArchimedian t-norm composition. Fuzzy Sets and Systems 159 (2008) 24, 3347-3358.

Wu, Zezhong and Zheng, Fenghua: Optimality conditions and duality for a class of nonlinear fractional programming problems. (Chinese) Journal of Sichuan Normal University. Natural Science 30 (2007) 5, 594-597.

369. Xiao, L.: Neural network method for solving linear fractional programming. Proceedings-2010 International Conference on Computational Intelligence and Security, CIS 2010; Nanning, 11-14 Decembrie 2010, Article number 5696227, 37-41. 369 Ioan Stancu-Minasian

370. Xu, Cheng; Xu, Xiao-ming and Wang, Hai-feng: The fractional minimal cost flow problem on network. Optimization Letters 5(2011)2, 307-317.

371. Xu, Yang.yang and Cui, Jin-chuan: A variant of multi-task n-vehicle exploration problem:Maximizing every processor's average profit. Arkiv preprint 2011 arXiv:11033224 1

372. Xue, Sheng Jia: A way to find the set of optimal solutions in linear fractional programming. (Chinese) Comm. Appl. Math. Comput. 16 (2002) 1, 90-96.

373. Xue, S. J.: Determining the optimal solution set for linear fractional programming. Journal of Systems Engineering and Electronics. 13 (2002) 3, 40-45.

374. Xue, Shengjia: On alternative optimal solutions to quasimonotonic programming with linear constraints. Applied Mathematics. A Journal of Chinese Universities. Ser. B 22 (2007) 1, 119-125.

375. Xue, Sheng Jia and Han, X.-H.: The structure and search procedure of solution sets of linear fractional programming in general form. Journal-Jinan University Natural Science and Medicine Edition. 27 (2006) 5, 646-651.

376. Yamamoto, R. and Konno, H.: An efficient algorithm for solving convex-convex quadratic fractional programs. Journal of Optimization Theory and Applications 133 (2007) 2, 241-255.

377. Yamamoto, R.; Ishii, D. and Konno, H.: A maximal predictability portfolio model: Algorithm and performance evaluation. International Journal of Theoretical and Applied Finance 10(2007)6, 1095-1109.

378. Yamashita, H.: Efficient algorithms for minimizing the sum and the product of linear fractional functions. Master Thesis, Dept. of Industrial Engineering and Management. Tokyo Institute of Technology, 1997.

379. Yan, S. and Tang, X.: Trace quotient problems revisited. In: Leonardis, A; Bischof, H., Prinz, A. (Eds.) Computer Vision ECCV 2006. Lecture Notes in Computer Science, vol. 3951, pp. 232-244. Springer, Heidelberg, 2006.

380. Yan, Y.: ε -optimality conditions for a class of ε F -G convex fractional semi-infinite programming. 3rd International Joint Conference on Computational Sciences and Optimization, CSO : Theoretical Development and Engineering Practice, Volume 2, 2010, Article number 5533123, 13-15.

381. Yang, Fang;. Hugejiletu and Li, Fanbei: Duality ,and Kuhn-Tucker type sufficient conditions for a

class of nondifferentiable minimax fractional programming problems. Journal of Northwest University. Natural Sciences Edition 40(2010)5, 768-771. 370 A Seventh Bibliography of Fractional Programming

382. Yang, Liming; Wang, Laisheng; Sun, Yuhua and Zhang, Ruiyan: Simultaneous feature selection and classification via Minimax Probability Machine, International Journal of Computational Intelligence Systems 3(2010)6, 754-560.

383. Yang, X.M.; Yang, X.Q. and Teo, K.L.: On properties of semipreinvex functions. Bulletin of the Australian Mathematical Society 68 (2003) 3, 449-459.

384. Yang, X.Q.: Second-order global optimality conditions for optimization problems. Journal of Global Optimization 30 (2004) 2-3, 271-284.

385. Yang, Yong: On sufficient conditions of ε -optimality solutions of generalized ε - invex fractional semiinfinite programming. Proceedings of the 2nd International Conference on Modelling and Simulation, ICMS 2009, Manchester, 21-22 May 2009, Volume 6, 75-78.

386. Yang, Y.: ε F -convex function and fractional semi-infinite programming. Proceedings-2010 International Conference of Information Science and Management Engineering, ISME 2010. Vol.1, 2010, Article number 5574027, 21-23.

387. Yang, Yong: ε -optimality conditions for a class of fractional semi-inifinite programming problems with F -G convex functions α_{i} , ε . (Chinese). Pure Appl. Math. (Xi'an) 26(2010)1, 107-110.

388. Yang, Y. and Hou, Z.: A study on duality theorems of nonconvex fractional semi-infinite programming. Lecture Notes in Electrical Engineering, Volume 121, 2011, 109-114.

389. Yang, Y. and Lee, J.M.: An iterative optimization approach to design of control Lyapunov function. Journal of Process Control 22(2012)1, 145-155.

390. Yang, Yong and Zhang, QingXiang: Duality theory in generalized ρ -univex fractional semi-infinite programming.CSO, Vol.2, pp. 757-760, 2009 International Joint Conference on Computational Sciences and Optimization (cso 2009) Sanya, Hainan, China, April 24-26, 2009.

391. Yang, Y.; Lian, T. and Mu, R. : ε -optimality conditions for a class of fractional semi-infinite programming with (α , b, ε)-G convex functions. Southwest China Normal University 33(2008)6, 1-4. F

392. Yang, Y.; Liu, L. and Lian, T.: Duality in fractional semi-infinite programming with generalized F - convexity ε. ICIC 2010-3rd International Conference on Information and Computing. Volume 3, 2010. Article number 5513914, 37-39. 371 Ioan Stancu-Minasian

393. Yang, Y.; Liu, L. and Lian, T.: Mond-Weir type duality in nondifferentiable fractional programming with generalized convexity. Proceedings-2010 International Conference of Information Science and Management Engineering, ISME 2010. Vol.1, 2010, Article number 5574031, 7-9.

394. Yang, Yong; Mu, RuiJin and Lian, TieYan: Sufficient conditions of e-optimality solutions involving einvex fractional semi-infinite programming. CSO, Vol.2, pp. 716- 718, 2009 International Joint Conference on Computational Sciences and Optimization (cso 2009) Sanya, Hainan, China, April 24-26, 2009.

395. Yanjun, Wang; Shen , Peiping and Zhian, Liang: A branch-and-bound algorithm to globally solve the sum of several linear ratios. Applied Mathematics and Computation 168 (2005) 1, 89-101.

396. Yin, J. and Li, K.: A deterministic method for a class of fractional programming problems with coefficients. Key Engineering Materials Volume 467-469(2011), 531-536.

397. Yokoyama, Ryohei and Ito, Koichi: Optimal design of energy supply systems based on relative robustness criterion. Energy Conversion and Management 43 (2002) 4, 499- 514.

398. You, Fengqi; Castro, Pedro M. and Grossmann, Ignacio, E.: Dinkelbach's algorithm as an efficient method to solve a class of MINLP models for large-scale cyclic scheduling problems. Computers and Chemical Engineering 33(2009)11, 1879-1889.

399. Yousef, S. and Badra, N.: Sensitivity analysis of two-level fractional programming problems. Australian Journal of Basic and Applied Sciences 3(2009)2, 1130-1135.