

Andrzej Ruszczyński

Curriculum Vitae

Business Address

Rutgers University, Department of Management Science and Information Systems,
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Education and Degrees

- 1974** M.Sc. in Electrical Engineering and Computer Science
- 1977** Ph.D. in Control Engineering; thesis: “Interaction Balance Methods for Control of Large-Scale Systems”
- 1983** Habilitation (Qualification for Professorship); thesis: “Some Properties and Methods of Solution of Nonlinear Stochastic Programming Problems”
all conferred by the Warsaw University of Technology, Warsaw, Poland
- 1992** Professor, *state title awarded by the President of the Republic of Poland*

Employment

- 1997-present** Professor and Distinguished Professor (since 2005), Department of Management Science and Information Systems, Rutgers University
- 2001-02, 2008-2009, 2015-2016** Visiting Professor, Department of Operations Research and Financial Engineering, Princeton University
- 1996-97** Visiting Professor, Department of Industrial Engineering, University of Wisconsin--Madison
- 1992-96** Leader of the project “Optimization under Uncertainty”, International Institute for Applied Systems Analysis, Laxenburg, Austria
- 1992** Visiting Scholar, Department of Civil Engineering and Operations Research, Princeton University
- 1991-92** Professor, Institute of Automatic Control, Warsaw University of Technology
- 1987-90** Vice Dean of the Department of Electronics and Computer Science, Warsaw University of Technology
- 1986-87** Vice Director, Institute of Automatic Control, Warsaw University of Technology
- 1984-86** Visiting Scholar, Institute of Operations Research, University of Zurich, Switzerland
- 1978-83** Associate Professor, Institute of Automatic Control, Warsaw University of Technology
- 1976-78** Assistant Professor, Institute of Automatic Control, Warsaw University of Technology

Research Interests

- Optimization of Stochastic Systems
- Nonlinear and Dynamic Optimization
- Risk Modeling and Analysis
- Business Analytics

Major Research Achievements

- Optimization theory for risk measures
- Risk-averse dynamic optimization
- Optimization with stochastic dominance constraints
- Primal and dual decomposition methods for stochastic optimization problems
- Methods for stochastic optimization with probabilistic constraints
- Stochastic subgradient methods with direction averaging and on-line stepsize rules

Awards and Honors

- 2018** George B. Dantzig Prize of the Society on Applied and Industrial Mathematics and the Mathematical Optimization Society;
- 2017** Fellow of INFORMS;
- 2015** Air Force Office of Scientific Research Award FA95550-15-1-0251, “Coherent Risk-Adjusted Decisions over Time: a Bilevel Programming Approach,” \$ 482,042, Co-Principal Investigator;
- 2014** Rutgers University Board of Governors Award for the Excellence in Research;
- 2013** National Science Foundation Award DMS-1312016: “Time-Consistent Risk-Averse Control of Markov Systems,” \$ 240,000, Principal Investigator;
- 2011** Air Force Office of Scientific Research Award FA9550-11-1-0164: “Coherent Risk-Adjusted Decisions over Time: a Bilevel Programming Approach,” \$ 483,132, Co-Principal Investigator;
- 2010** National Science Foundation Award CMMI-0965689: “Successive Risk-Neutral Approximations of Dynamic Risk-Averse Optimization Problems,” \$ 200,000, Principal Investigator;
- 2009** Invited plenary talk at the International Symposium of Mathematical Programming (Chicago, USA);
- 2006** National Science Foundation Award DMS-0603728: “Dynamic Stochastic Optimization with Stochastic Ordering Constraints and Risk Functionals,” \$ 165,160, Principal Investigator;
- 2004** National Science Foundation Award DMI-0354678: “Risk-Averse Stochastic Optimization,” \$ 169,092, Principal Investigator;
- 2003** National Science Foundation Award DMS-0303545: “Semi-Infinite Probabilistic Optimization,” \$ 102,667, Principal Investigator;

- 1998** Invited plenary talk at the International Conference on Stochastic Programming (Vancouver, Canada)
- 1997** Invited semi-plenary talk at the International Symposium of Mathematical Programming (Lausanne, Switzerland);
- 1996** Invited plenary talk at the SIAM Conference on Optimization (Victoria, Canada);
- 1969** 1st Prize in the Mathematical Olympiad in Poland;
- 1968–2006** 34 prizes in chess problem tournaments in Czechoslovakia, Denmark, England, Finland, Germany, Hungary, the Netherlands, Poland, Sweden, USA, USSR, and Yugoslavia;

Service to the Community

- INFORMS: Member of the Khachiyan Prize Committee (2017)
- Mathematical Optimization Society: Member of the Student Paper Prize Committee (2016)
- National Science Foundation: panelist (2006–2015)
- INFORMS: Chair of the Young Investigator Prize Committee (2014)
- Chair: Broyden Prize Committee (2010-2011)
- INFORMS: Member of the Farkas Prize Committee (2008)
- Member of the Evaluation Committee, Institute of Mathematical Methods of Economics and Business, University of Zürich, Switzerland, December 2005
- INFORMS: Vice-Chair of the Optimization Committee (2004-2006)
- INFORMS: Member and Chair of the Expository Writing Prize Committee (2003–2005)
- Mathematical Programming Society: Chairman of the Committee of Stochastic Programming (1995 – 2001),
 - Associate Editor, *SIAM Journal on Optimization* (1997-present)
 - Associate Editor, *Annals of Operations Research* (2008-present)
 - Associate Editor, *Mathematics of Operations Research* (2010-present)
 - Associate Editor, *Optimization Methods and Software* (1999-2017)
 - Editor, special issue of *Optimization Methods and Software* 17 (2002), No. 3, *Stochastic Programming* (with A. Prekopa)
 - Editor, special issue of *Mathematical Programming, Series B* 89(2001) No. 2, *Mathematical Programming and Finance* (with H. Konno and J. M. Mulvey)
 - Editor, special issue of *Mathematical Programming, Series B* 76(1997) No. 3, *Computational Nonsmooth Optimization* (with L. Qi and R. Womersley)
 - Editor, special issue of *European Journal of Operational Research* 101 (1997), No.2, *Stochastic Optimization* (with G. Pflug).
 - Cluster Organizer, INFORMS Annual Meeting (San Francisco, 2005).
 - Cluster Organizer, Mathematical Programming Symposium (Atlanta, 2000).
 - Co-Organizer of seven Rutgers–Stevens Workshops on Optimization of Stochastic Systems (2002–2016)
 - Co-organizer of the EURO Winter School of Stochastic Optimization (Semmering, Austria, 1996)

- Organizer of the Workshop on Large-Scale Nonsmooth Optimization (Laxenburg, Austria, 1995)
- Organizer of the Workshop on Decomposition and Parallel Computation Methods (Laxenburg, Austria, 1994)
- Organizer of the Workshop on Approximation of Stochastic Programming Problems (Laxenburg, Austria, 1993)
- Session organizer at many SIAM and Mathematical Programming conferences.

Service to the University

- Member, Appointments and Promotions Committee, Rutgers Business School; 2007–2013
- Member and Chair, Research Resources Committee, Rutgers Business School; 2000–2007
- Member, Strategic Planning Committee, Rutgers Business School; 2002–2004
- Member, New Brunswick Computing Advisory Committee; 1998–2001
- Member, Course of Study Committee, Rutgers Business School; 1998–2000
- Member, Hiring Committee, Department of Management Science and Information Systems; 2000–2013

Publications

Books

- B7. A. Shapiro, D. Dentcheva and A. Ruszczyński, *Lectures on Stochastic Programming*, SIAM Publications, Philadelphia 2009 (second edition 2013).
- B6. A. Ruszczyński, *Nonlinear Optimization*, Princeton University Press, Princeton 2006.
- B5. A. Ruszczyński and A. Shapiro (Eds.), *Stochastic Programming, Handbooks in Operations Research and Management Science*, Elsevier, Amsterdam 2003.
- B4. C. Greengard and A. Ruszczyński (Eds.), *Decision Making Under Uncertainty. Energy and Power*, Springer Verlag, New York 2002.
- B3. M. Brdyś and A. Ruszczyński, *Optimization Methods in Problems*, Wydawnictwa Naukowo-Techniczne, Warsaw, 1984 (in Polish).
- B2. T. Kreglewski, T. Rogowski, A. Ruszczyński and J. Szymanowski, *Optimization Methods in FORTRAN*, Państwowe Wydawnictwa Naukowe, Warsaw, 1984 (in Polish).
- B1. A. Ruszczyński, *Theory and Numerical Methods of Nonlinear Stochastic Programming*, Wydawnictwa Politechniki Warszawskiej, Warsaw, 1982 (in Polish).

Chapters in Books

- C12 A. Ruszczyński, Advances in Risk-Averse Optimization, *Tutorials in Operations Research*, INFORMS 2013, pp. 168–190.

- C11. D. Dentcheva and A. Ruszczyński, Portfolio Optimization with Risk Control by Stochastic Dominance Constraints, Chapter 9 of *Stochastic Programming. The State of the Art.*, G. Infanger (ed.), Springer, New York, 2011.
- C10. D. Dentcheva and A. Ruszczyński, Risk-Averse Portfolio Optimization via Stochastic Dominance Constraints, Chapter 15 of *Handbook of Quantitative Finance*, C. F. Lee (ed.), Springer, New York, 2010.
- C9. A. Ruszczyński and A. Shapiro, Optimization of risk measures, in G. Calafiore and F. Dabbene (Eds.) *Probabilistic and Randomized Methods for Design under Uncertainty*, Springer-Verlag, London, 2005, pp. 117–158.
- C8. G. Ch. Pflug and A. Ruszczyński, A Risk Measure for Income Processes, in: G. Szegö (Ed.), *Risk Measures for the 21st Century*, Wiley, Chichester, 2004, ISBN: 0-470-86154-1, pages 249–270.
- C7. A. Ruszczyński and A. Shapiro, Stochastic Programming Models, in: A. Ruszczyński and A. Shapiro (Eds.), *Stochastic Programming*, Elsevier, Amsterdam 2003, ISBN: 0-444-50854-6, pages 1–64.
- C6. A. Ruszczyński and A. Shapiro, Optimality and Duality in Stochastic Programming, in: A. Ruszczyński and A. Shapiro (Eds.), *Stochastic Programming*, Elsevier, Amsterdam 2003, ISBN: 0-444-50854-6, pages 65–140.
- C5. A. Ruszczyński, Decomposition Methods, in: A. Ruszczyński and A. Shapiro (Eds.), *Stochastic Programming*, Elsevier, Amsterdam 2003, ISBN: 0-444-50854-6, pages 141–212.
- C4. B.J. Lence and A. Ruszczyński, Managing Water Quality under Uncertainty, in: J.J. Bogardi and Z.B. Kundzewicz (Eds.), *Risk, Reliability, Uncertainty and Robustness of Water Resources Systems*, Cambridge University Press, Cambridge, U.K., 2001, ISBN: 0-521-80036-6, pages 143–152.
- C3. W.B. Arthur and A. Ruszczyński, Strategic pricing in markets with increasing returns, in: W.B. Arthur (Ed.), *Increasing Returns and Path-Dependence in the Economy*, The University of Michigan Press, Ann Arbor, 1994, pages 159–184.
- C2. P. Kall, A. Ruszczyński and K. Frauendorfer, Approximation techniques in stochastic programming, in: Yu. Ermoliev and R. Wets (Eds.), *Numerical Methods for Stochastic Optimization*, Springer-Verlag, 1987, pages 33–64.
- C1. A. Ruszczyński and J. Szymanowski, Mathematical Programming, in: *Mathematical Handbook*, Wydawnictwa Naukowo-Techniczne, Warsaw 1986, pages 248–317 (in Polish).

Articles in Refereed Journals

- A95. J. Fan, A. Ruszczyński, Risk measurement and risk-averse control of partially observable discrete-time Markov systems, *Mathematical Methods of Operations Research*, (2018), 1–24.

- A94. D. Dentcheva, A. Ruszczyński, Time-Coherent risk measures for continuous-time Markov chains, *SIAM Journal on Financial Mathematics*, 9(2) (2018), 690–715.
- A93. Y. Du, X. Lin, A. Ruszczyński, A Selective Linearization Method For Multi-Block Convex Optimization, *SIAM Journal on Optimization*, 27 (2017), 1102–1117.
- A92. Y. Du, A. Ruszczyński, Rate of convergence of the bundle method, *Journal of Optimization Theory and Applications*, 173 (2017), 908–922.
- A91. D. Dentcheva, S. Penev, A. Ruszczyński, Statistical estimation of composite risk functionals and risk optimization problems, *Annals of the Institute of Statistical Mathematics*, (2016), pp. 1–24.
- A90. S. Gülten, A. Ruszczyński, Two-stage portfolio optimization with higher-order conditional measures of risk, *Annals of Operations Research*, 229 (1), 2015, pp. 409–427.
- A89. T. Asamov, A. Ruszczyński, Time-consistent approximations of risk-averse multistage stochastic optimization problems, *Mathematical Programming*, 153 (2), 2015, pp. 459–493.
- A88. Ö. Çavuş, A. Ruszczyński, Risk-averse control of undiscounted transient Markov models, *SIAM Journal on Control and Optimization*, 52(6), 2014, pp. 3935–3966.
- A87. X. Lin, M. Pham, A. Ruszczyński, Alternating linearization for structured regularization problems, *Journal of Machine Learning Research*, 15 (2014), pp. 3447–3481.
- A86. D. Dentcheva, A. Ruszczyński, Risk preferences on the space of quantile functions, *Mathematical Programming, Series B*, 148 (1-2), 2014, pp. 181–200.
- A85. Ö. Çavuş, A. Ruszczyński, Computational methods for risk-averse undiscounted transient Markov models, *Operations Research*, 62 (2), 2014, pp. 401–417.
- A84. D. Dentcheva, A. Ruszczyński, Common mathematical foundations of expected utility and dual utility theories, *SIAM Journal on Optimization* 23 (2013), No. 1, 381–405.
- A83. R. Collado, D. Papp, A. Ruszczyński, Scenario decomposition of risk-averse multistage stochastic programming problems, *Annals of Operations Research* 200 (2012), No. 1, 147–170.
- A82. A. Lizyayev, A. Ruszczyński, Tractable almost stochastic dominance, *European Journal of Operational Research* 218 (2012), No. 2, 448–455.
- A81. S. Choi, A. Ruszczyński, Y. Zhao, A multi-product risk-averse newsvendor with law invariant coherent measures of risk, *Operations Research* 59 (2011), No. 2, 346–364.
- A80. S. Choi, A. Ruszczyński, A Multi-product risk-averse newsvendor with exponential utility function, *European Journal of Operational Research* 214 (2011), No. 1, 78–84.
- A79. N. Miller, A. Ruszczyński, Risk-averse two-stage stochastic linear programming: modeling and decomposition, *Operations Research*, 59 (2011) 125–132.
- A78. D. Dentcheva, S. Penev, A. Ruszczyński, Kusuoka representation of higher order dual risk measures, *Annals of Operations Research* 181 (2010) 325–335.

- A77. A. Ruszczyński, Risk-averse dynamic programming for Markov decision processes, *Mathematical Programming*, Series B 125 (2010) 235–261.
- A76. D. Dentcheva, A. Ruszczyński, Inverse cutting plane methods for optimization problems with second-order stochastic dominance constraints, *Optimization* 59 (2010) 323–338.
- A75. D. Dentcheva and A. Ruszczyński, Robust stochastic dominance and its application to risk-averse optimization, *Mathematical Programming*, Series B 123 (2010) 85–100.
- A74. D. Dentcheva and A. Ruszczyński, Duality between coherent risk measures and stochastic dominance constraints in risk-averse optimization, *Pacific J. of Optimization* 4 (2008), No. 3, 433–446.
- A73. G. Rudolf and A. Ruszczyński, Optimization problems with second order stochastic dominance constraints: duality, compact formulations, and cut generation methods, *SIAM Journal on Optimization* 19 (2008), No. 3, 1326–1343.
- A72. S.D. Flåm and A. Ruszczyński, Finding normalized equilibrium in convex-concave games, *Int. Game Theory Rev.* 10 (2008), no. 1, 37–51.
- A71. D. Dentcheva and A. Ruszczyński, Stochastic dynamic optimization with discounted stochastic dominance constraints, *SIAM Journal on Control and Optimization* 47 (2008), No. 5, 2540–2556.
- A70. D. Dentcheva and A. Ruszczyński, Stochastic dominance for sequences and implied utility in dynamic optimization, *Comptes Rendus de l'Academie Bulgare des Sciences* 57 (2008), No. 1, 15–22.
- A69. N. Miller and A. Ruszczyński, Risk-adjusted probability measures in portfolio optimization with coherent measures of risk, *European Journal of Operational Research* 191 (2008) 193–206.
- A69. A. Ruszczyński, A merit function approach to the subgradient method with averaging, *Optimization Methods and Software* 23 (2008), No. 1, 161–172.
- A68. D. Dentcheva, A. Ruszczyński, Optimization with multivariate stochastic dominance constraints, *Mathematical Programming* 117 (2009) 111–127.
- A67. N. Noyan, A. Ruszczyński, Valid inequalities and restrictions for stochastic programming problems with first order stochastic dominance constraints, *Mathematical Programming* 114 (2008) 249–275.
- A66. S. Choi and A. Ruszczyński, A risk-averse newsvendor with law invariant coherent measures of risk. *Operations Research Letters* 36 (2008), No. 1, 77–82.
- A65. D. Dentcheva, R. Henrion and A. Ruszczyński, Stability and sensitivity of optimization problems with first order stochastic dominance constraints, *SIAM Journal on Optimization* 18 (2007) 322–333.
- A64. M. Lejeune, A. Ruszczyński, An efficient trajectory method for probabilistic production-inventory-distribution problems, *Operations Research* 55 (2007) 378–394.

- A63. A. Ruszczyński and A. Shapiro, Conditional risk mappings, *Mathematics of Operations Research* 31 (2006) 544–561.
- A62. A. Ruszczyński and A. Shapiro, Optimization of convex risk functions, *Mathematics of Operations Research* 31 (2006) 433–452.
- A61. L. Lei, S.G. Liu, A. Ruszczyński and S. Park, On the integrated production, inventory, and distribution routing problem, *IIE Transactions* 38 (2006) 955–970.
- A60. N. Noyan, G. Rudolf and A. Ruszczyński, Relaxations of linear programming problems with first order stochastic dominance constraints, *Operations Research Letters* 34 (2006) 653–659.
- A59. D. Dentcheva and A. Ruszczyński, Inverse stochastic dominance constraints and rank dependent expected utility theory, *Mathematical Programming* 108 (2006) 297–311.
- A58. D. Dentcheva and A. Ruszczyński, Portfolio optimization with stochastic dominance constraints. *Journal of Banking and Finance* 30/2 (2006) 433–451.
- A57. P. Beraldi and A. Ruszczyński, Beam search heuristic to solve stochastic integer problems under probabilistic constraints, *European Journal of Operational Research* 167 (2005) 35–47.
- A56. D. Dentcheva, A. Ruszczyński, Inverse stochastic dominance constraints and quantile utility theory, *Comptes Rendus de l'Academie Bulgare des Sciences* 58 (2005), No.2, 11–16.
- A55. D. Dentcheva and A. Ruszczyński, Semi-infinite probabilistic optimization: first order stochastic dominance constraints, *Optimization* 53 (2004) 583–601
- A54. W. Powell, A. Ruszczyński, H. Topaloglu, Learning algorithms for separable approximations of stochastic optimization problems, *Mathematics of Operations Research* 29 (2004) 814–836.
- A53. D. Dentcheva, B. Lai, and A. Ruszczyński, Dual methods for probabilistic optimization, *Mathematical Methods of Operations Research* 60 (2004) 331–346.
- A52. D. Dentcheva and A. Ruszczyński, Optimality and duality theory for stochastic optimization problems with nonlinear dominance constraints, *Mathematical Programming* 99 (2004) 329–350.
- A51. D. Dentcheva and A. Ruszczyński, Convexification of stochastic ordering, *Comptes Rendus de l'Academie Bulgare des Sciences* 57 (2004), No. 4, 11–16.
- A50. D. Dentcheva and A. Ruszczyński, Optimization with stochastic dominance constraints, *SIAM Journal on Optimization* 14 (2003) 548–566.
- A49. A. Ruszczyński and R.J. Vanderbei, Frontiers of stochastically nondominated portfolios, *Econometrica* 71 (2003) 1287–1297.
- A48. D. Dentcheva and A. Ruszczyński, Optimization under nonlinear stochastic dominance, *Comptes Rendus de l'Academie Bulgare des Sciences* 56 (2003), No. 7, pp. 19–25.

- A47. D. Dentcheva and A. Ruszczyński, Optimization under linear stochastic dominance, *Comptes Rendus de l'Academie Bulgare des Sciences* 56 (2003), No. 6, pp. 6–11.
- A46. A. Ruszczyński, Probabilistic programming with discrete distributions and precedence constrained knapsack polyhedra, *Mathematical Programming* 93 (2002) 195–215.
- A45. W. Ogryczak and A. Ruszczyński, Dual stochastic dominance and related mean–risk models, *SIAM Journal on Optimization* 13 (2002) 60–78.
- A44. P. Beraldi and A. Ruszczyński, A branch and bound method for stochastic integer problems under probabilistic constraints, *Optimization Methods and Software* 17 (2002) 359 - 382.
- A43. W. Ogryczak and A. Ruszczyński, Dual stochastic dominance and quantile risk measures, *International Transactions in Operations Research* 9 (2002) 1–20.
- A42. P. Beraldi and A. Ruszczyński, The probabilistic set covering problem, *Operations Research* 50 (2002) 956–967
- A41. D. Dentcheva, A. Prékopa and A. Ruszczyński, Bounds for stochastic integer programming with probabilistic constraints, *Discrete Applied Mathematics* 124 (2002) 55–65.
- A40. A. Kryazhinskii and A. Ruszczyński, Constraint aggregation in infinite-dimensional spaces and applications, *Mathematics of Operations Research* 26 (2001) 769–795.
- A39. D. Dentcheva, A. Prékopa and A. Ruszczyński, On convex probabilistic programming with discrete distributions, *Nonlinear Analysis* 47 (2001) 1997–2009
- A38. W. Ogryczak and A. Ruszczyński, On consistency of stochastic dominance and mean–semideviation models, *Mathematical Programming* 89 (2001), 217-232
- A37. D. Dentcheva, A. Prékopa and A. Ruszczyński, Concavity and efficient points of discrete distributions in probabilistic programming, *Mathematical Programming* 89 (2000) 55–77.
- A36. A. Ruszczyński, Dynamics aggregation in stochastic control problems, *Journal of Optimization Theory and Applications* 105(3) (2000) 639–658.
- A35. M.C. Ferris and A. Ruszczyński, Robust path choice and vehicle guidance in networks with failures, *Networks* 35 (2000) 181–194.
- A34. A. Ruszczyński, Some advances in decomposition methods for stochastic linear programming, *Annals of Operations Research* 85 (1999) 153–172
- A33. W. Ogryczak and A. Ruszczyński, From stochastic dominance to mean–risk models: Semideviations as risk measures, *European Journal of Operational Research* 116 (1999) 33–50 [published on-line as an Interim Report 97-027 of the International Institute of Applied Systems Analysis, Laxenburg, 1997]
- A32. K.C. Kiwiel, C.H. Rosa and A. Ruszczyński, Proximal decomposition via alternating linearization, *SIAM Journal on Optimization* 9 (1999) 668–689.
- A31. V.I. Norkin, G.Ch. Pflug and A. Ruszczyński, A stochastic branch and bound method for stochastic global optimization, *Mathematical Programming* 83 (1998) 425–450.

- A30. V.I. Norkin, Yu.M. Ermoliev and A. Ruszczyński, On optimal allocation of indivisibles under uncertainty, *Operations Research* 46 (1998) 381–395.
- A29. G. Pflug, A. Ruszczyński and R. Schultz, On the Glivenko–Cantelli problem in stochastic programming: mixed-integer linear recourse, *Mathematical Methods of Operations Research (ZOR)* 47 (1998) 39–49.
- A28. G. Pflug, A. Ruszczyński and R. Schultz, On the Glivenko–Cantelli problem in stochastic programming: linear nd convex recourse, *Mathematics of Operations Research* 23 (1997) 204–220.
- A27. A. Ruszczyński, A. Świętanowski, Accelerating the regularized decomposition method for two stage stochastic linear problems, *European Journal of Operational Research* 101 (1997) 328–342.
- A26. A. Ruszczyński, Decomposition methods in stochastic programming, *Mathematical Programming* 79 (1997) 333–353.
- A25. Yu. Ermoliev, A. Kryazhimskii and A. Ruszczyński, A constraint aggregation principle in convex optimization, *Mathematical Programming* 76 (1997) 353–372.
- A24. Yu. Ermoliev and A. Ruszczyński, Convex optimization by radial search, *Journal of Optimization Theory and Applications* 91 (1996) 731–738.
- A23. C. Rosa and A. Ruszczyński, On augmented Lagrangian decomposition methods for multistage stochastic programs, *Annals of Operations Research* 64 (1996) 289–309.
- A22. A. Altman, M. Amann, G. Klaassen, A. Ruszczyński, W. Schöpp, Cost-effective sulphur emission under uncertainty, *European Journal of Operational Research* 90 (1996) 395–412.
- A21. W. Gutjahr, G. Pflug and A. Ruszczyński, Configurations of series–parallel networks with maximum reliability, *Microelectron. Reliab.* 36 (1996) 247–253.
- A20. A. Ruszczyński, On convergence of an augmented Lagrangian decomposition method for sparse convex optimization, *Mathematics of Operations Research* 20 (1995) 634–656.
- A19. J.M. Mulvey and A. Ruszczyński, A new scenario decomposition method for large-scale stochastic optimization, *Operations Research* 43 (1995) 477–490.
- A18. A.J. Berger, J.M. Mulvey and A. Ruszczyński, An extension of the DQA algorithm to convex stochastic programs, *SIAM Journal on Optimization* 4 (1994) 735–753.
- A17. A. Ruszczyński, Parallel decomposition of multistage stochastic programming problems, *Mathematical Programming* 58(1993) 201–228.
- A16. J. Gondzio and A. Ruszczyński, Sensitivity method for basis inverse representation in multistage stochastic programming problems, *Journal of Optimization Theory and Applications* 74 (1992) 221–242.
- A15. J.M. Mulvey and A. Ruszczyński, A diagonal quadratic approximation method for large scale linear programs, *Operations Research Letters* 12(1992) 205–215.

- A14. B. Arthur and A. Ruszczyński, Strategic pricing in markets with a conformity effect, *Archives of Control Sciences* 1(XXXVII) (1992) 7–31.
- A13. A. Ruszczyński, An augmented Lagrangian decomposition method for block diagonal linear programming problems, *Operations Research Letters* 8 (1989) 287–294.
- A12. A. Ruszczyński, A linearization method for nonsmooth stochastic optimization problems, *Mathematics of Operations Research*, 12 (1987) 32–49.
- A11. A. Ruszczyński, A regularized decomposition method for minimizing a sum of polyhedral functions, *Mathematical Programming* 35 (1986) 309–333.
- A10. A. Ruszczyński and W. Syski, On convergence of the stochastic subgradient method with on-line stepsize rules, *Journal of Mathematical Analysis and Applications* 114 (1986) 512–527.
- A9. A. Ruszczyński and W. Syski, A method of aggregate stochastic subgradients with on-line stepsize rules for convex stochastic programming problems, *Mathematical Programming Study* 28 (1986) 113–131.
- A8. A. Ruszczyński and M. Styblinski, Stochastic approximation approach to statistical circuit design, *Electronics Letters* 19 (1983) 300–302.
- A7. A. Ruszczyński and W. Syski, Stochastic approximation algorithm with gradient averaging for unconstrained problems, *IEEE Transactions on Automatic Control* AC–28 (1983) 1097–1105.
- A6. A. Ruszczyński, Stochastic feasible direction methods for nonsmooth stochastic optimization problems, *Control and Cybernetics* 9 (1980) 173–187.
- A5. A. Ruszczyński, Feasible direction methods for stochastic programming problems, *Mathematical Programming* 19 (1980) 220–229.
- A4. A. Ruszczyński and J. Szymanowski, Convergence analysis for two-level algorithms of mathematical programming, *Mathematical Programming Study* 10 (1979) 158–171.
- A3. A. Ruszczyński, Coordination of nonstationary systems, *IEEE Transactions on Automatic Control* AC–24 (1979) 51–62.
- A2. A. Ruszczyński, Convergence conditions for the interaction balance algorithm based on an approximate mathematical model, *Control and Cybernetics* 5 (1976) 29–43.
- A1. K. Malinowski and A. Ruszczyński, Application of interaction balance method to process coordination, *Control and Cybernetics* 4 (1975) 15–31.

Refereed Conference Proceedings (English only)

- P18 D. Dentcheva, A. Ruszczyński, Risk-Averse Control of Continuous-Time Markov Chains, *Proceedings of the Conference on Control and its Applications, Pittsburgh 2017*, pp. 78–85.

- P17 J. Fan, A. Ruszczyński, Dynamic Risk Measures for Finite-State Partially Observable Markov Decision Problems, *Proceedings of the Conference on Control and its Applications, Paris 2015*, pp. 153–158.
- P16 A. Ruszczyński, J. Yao, A Risk-Averse Analog of the Hamilton–Jacobi–Bellman Equation, *Proceedings of the Conference on Control and its Applications, Paris 2015*, pp. 462–468.
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- Co-Author of the undergraduate program “Business Analytics and Information Technology” at Rutgers Business School
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 - Dynamic Programming (graduate)
 - Stochastic Programming (graduate)
 - Optimization Models in Finance (graduate)
 - Stochastic Calculus for Finance (graduate)
 - Operations Management
 - Statistical Methods in Business
 - Risk Modeling
- Courses taught at Princeton University:
 - Nonlinear Programming (graduate)
 - Risk-Averse Optimization (graduate)

- Courses taught at the University of Wisconsin–Madison:

- Stochastic Modeling (undergraduate)
- Stochastic Modeling Techniques (graduate)
- Dynamic Programming (graduate)
- Systems Modeling (graduate)

- Courses taught at Warsaw University of Technology:

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- Stochastic Control
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