

## Curriculum Vitae

**Name (first name, initial of father's name, last name):** Mikhail Y. Kovalyov

**Working address:**

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**Education:** Faculty of Applied Mathematics, Belarusian State University (Minsk), 1982, diploma with honor.

**Academic Qualifications:**

Scientific degrees:

Candidate of science (Ph.D.) in Mathematical Cybernetics, 1986;

Doctor of science (Habilitation doctor of science) in Mathematical Cybernetics, 1999.

Titles:

Senior researcher (Docent) in Mathematical Cybernetics, 1991;

Professor in Computer Science, 2004,

Corresponding member of the National Academy of Sciences of Belarus in Information Technologies, 2017.

**Professional expertise:** mathematical modeling and algorithms for production and computer scheduling, logistics, optimal planning, resource allocation, transfer line design, bio-informatics, implementation of CALS-ERP technologies.

**Employment record:**

**1982-2002:** junior researcher, researcher, senior researcher, leading researcher and principal researcher (the highest research position) in the Institute of Engineering Cybernetics, National Academy of Sciences of Belarus (Minsk). Part-time teacher and professor positions in the Faculty of Applied Mathematics and Informatics, Belarusian State University.

**2002-2009:** Professor in the Faculty of Economics, Belarusian State University. Part-time leading researcher in the United Institute of Informatics Problems, National Academy of Sciences of Belarus.

**2009-present time:** Deputy General Director for Research in the United Institute of Informatics Problems, National Academy of Sciences of Belarus (UIIP). Part-time Professor in the Faculty of Applied Mathematics and Informatics, Belarusian State University.

**Abroad:** Senior Research Fellow at The Hong Kong Polytechnic University, Invited Professor of the 1st Class at Ecole des Mines de Nancy, Ecole des Mines de Saint-Etienne, University Paris-Dauphine, University Francois Rabelais (Tours), University Blaise Pascal (Clermont-Ferrand) and Engineering School IMT Atlantique (Nantes), visiting professor at Siegen University, Nantes University and Molde University College - The Specialized University in Logistics, Honorary Chair Professor at Feng Chia University, Taiwan.

**Ph.D. supervision and co-supervision:**

**Completed:** Maciej Lichtenstein, Marcin Marek, Tomasz Krysiak, Marcin Winczaszek, Radoslaw Rudek (all from Wroclaw University of Technology, Poland, scheduling with applications), Sergei Chubanov (University of Siegen, Germany, lot-sizing), Andrei Bandalouski (University of Siegen, dynamic pricing in hotel business), Sergey Malyutin (Ecole des Mines de Saint-Etienne, France, algorithms and software for the design of assembly and transfer lines), Maxim Barketau (Belarusian State University, Minsk, batching and scheduling), Oliver Czibula (University of Technology Sydney, timetabling and scheduling).

**In process:** Igor Rubanov (UIIP, Minsk, airplane routing).

**Teaching experience:** Operational Research (undergraduate students), Planning and Scheduling, Combinatorial Optimization (Bachelor students), Industrial and Transport Logistics, History of Logistics (Bachelor and Master students), intelligent enumeration algorithms and approximation schemes for optimization problems (Master and Ph.D. students).

**Industrial projects:** algorithms and software for planning a flexible shop in the satellite building enterprise “Orbita” (Dnepropetrovsk, Ukraine); algorithms, software and databases for planning workshops in the Tupolev airplane building company (Kazan, Russia); algorithms and software for the control of hypothermia medical procedure in the Institute of Oncology and Medical Radiology (Minsk, Belarus); workforce planning for a production line (Saint-Etienne, France); multi-criteria pedestrian routing and navigation (project “PERRON” of ERA-NET “Future traveling” initiative); optimization of electric transport operations (project “PLATON” of ERA-NET Cofund Electric Mobility Europe initiative).

**Research consulting:** methodologies for the development and implementation of CALS-ERP technologies at machine-building enterprises (Belarus); vehicle routing for a fuel delivery company (Belarus); facility location and vehicle routing for a distribution company (Russia); vehicle routing and dispatching for on-demand delivery (international company).

**International research and educational projects:** 12 completed multilateral projects funded by: INTAS (International Association for Promotion Cooperation with Scientists from Former Soviet Union), ISTC (International Science and Technology Center), TEMPUS, FP6, FP7 and ERA-NET. 10 bilateral research projects Belarus-Russia, Belarus-Germany, Belarus-France, Belarus-Poland, Belarus-Norway, Poland-Luxembourg. In progress: joint Austria-Belarus-Germany-Poland project “Planning Process and Tool for Step-by-Step Conversion of the Conventional or Mixed Bus Fleet to a 100% Electric Bus Fleet” (2018-2020) of the EU initiative “Electric Mobility Europe”, joint Belarus-Norway project “Development of a multidisciplinary Norwegian-Belarusian study program in Logistics Analytics promoting Bologna process reforms” (2016-2019) funded by the Norwegian Centre for International Cooperation in Education.

**Short research visits:** Wroclaw, Gdansk and Poznan Universities of Technology, Adam Mickiewicz University in Poznan (Poland), Magdeburg, Osnabrueck, Saarbrucken and Siegen Universities (Germany), Twente and Eindhoven Universities of Technology, Fontys University of Applied Sciences, Mathematical Center Amsterdam (The Netherlands), Avignon University (France), Southampton University (UK), Toronto University (Canada), Molde University College - The Specialized University in Logistics (Norway), Kuwait University, American University of Beirut (Lebanon), National Chiao Tung University (Taiwan), Queensland University of Technology (Brisbane, Australia), The Hebrew University of Jerusalem, Ben Gurion University of the

Negev (Israel), New York University Abu Dhabi (UAE).

**Research fellowships:**

University	Year	Total stay (months)
Erasmus University Rotterdam (The Netherlands)	1989	3
The Hong Kong Polytechnic University (Hong Kong)	1993-2010	28
York University (Canada)	1996	2
Memorial University of Newfoundland (Canada)	1996,1998	4
Greenwich University (UK)	1998	1.5
Poznan University of Technology (Poland)	2000	1
Ecole des Mines de Nancy (France)	2000-2011	8
Ecole des Mines de Saint-Etienne (France)	2007,2012,2015	8
University Paris-Dauphine (France)	2008,2010,2014	3
Siegen University (Germany)	2008-2012	6
University Francois Rabelais (Tours, France)	2013	2
University of Technology Sydney (Australia)	2013	1
University Blaise Pascal (Clermont-Ferrand, France)	2016, 2018	2
IMT Atlantique (Nantes, France)	2017,2019,2021	3
University Grenoble Alps (France)	2020	1
Nantes University (France)	2017, 2019, 2021	1.5

**Conferences:**

**Organizer:** international colloquium on scheduling theory and its applications (Minsk 1992), international conference on discrete optimization (Minsk 2000), international conferences “Tanaev’s readings” (Minsk 2003, 2005, 2007, 2010, 2012, 2014, 2016, 2018, 2020), ECCO (European Chapter on Combinatorial Optimization) (Minsk 2005), EURO mini-conference “Logistics Analytics” (Minsk 2018).

**Session chair:** international conferences on operations research (Dresden 2000, Bonn 2009, Lisbon 2010, Vilnius 2012, Rome 2013, Barcelona 2014, Poznan 2016), discrete optimization (Wittenberg 2002), logistics and vehicle routing (Amsterdam 2017), manufacturing modelling, management and control (Saint Petersburg 2013, Ottawa 2015, Troyes 2016).

**Invited speaker:** ECCO (Beirut 2004), Discrete optimization methods (Omsk 2015).

**Program committees:** “Discrete optimization methods” (Omsk 2004, Vladivostok 2016, Omsk 2018), ECCO (Minsk 2005), “Project management and scheduling” (Nancy 2004, Poznan 2006, Istanbul 2008, Tours 2010, Leuven 2012, Munich 2014, Valencia 2016, Rome 2018, Toulouse 2020), “Tanaev’s readings” (Minsk 2003, 2005, 2007, 2010, 2012, 2014, 2016, 2018), “Information technologies in industry” (Minsk 2012, 2015, 2017), “Manufacturing modeling, management and control” (Saint Petersburg, Russia, 2013), “Business information systems” (Larnaca 2014), “International Conference on Control, Decision and Information Technologies” (Metz 2014), “IEEE BusinessClouds Workshop” (Bali 2014), “IEEE International Conference on Industrial Engineering and Engineering Management” (Singapore 2017), International Conference on Industrial Engineering and Systems Management (Saarbrucken 2017), “Mathematical Optimization Theory and Operations Research (MOTOR)” (Ekaterinburg 2019), “13th International Symposium on Intelligent Distributed Computing” (Saint Petersburg, Russia, 2019).

**Editorial boards and professional groups:** Deputy Editor-in-Chief for *Informatika* (Minsk, Belarus), Area Editor for *Computers and Operations Research* (impact-factor 2.829), Associate Editor for *OMEGA* -

*The International Journal of Management Science* (impact-factor 4.671), *Journal of Scheduling* (impact-factor 1.281), *INFORMS Journal on Computing* (impact-factor 1.778) and *OR Spectrum* (impact-factor 2.141), Advisory Board for *European Journal of Operational Research* (impact-factor 3.582) and *Foundations of Computing and Decision Sciences* (Poznan), EURO working group on project management and scheduling, IFAC technical committee TC 5.2 on manufacturing modelling for management and control, Jury of EURO Doctoral Dissertation Award 2019.

**Guest editing of special issues:**

International Journal of Production Economics (2007) - “Scheduling in batch processing industries and supply chains”, European Journal of Operational Research (2008) - “Combinatorics for modern manufacturing, logistics and supply chains”, Journal of Scheduling (2012) - “New branches, old roots”.

**Awards:**

Young Scientist Award of Belarus in the field of science and technology, 1990.

State Prize of Belarus in the field of science and technology, 1998.

Prize of the National Academy of Sciences of Belarus, 2001.

The most cited author award of the National Academy of Sciences of Belarus, 2010.

Francysk Skaryna medal (Belarusian state award for distinguished scholars), 2015.

Distinguished Chair Professor of Feng Chia University (Taiwan), 2016.

**Publications:**

Type of publication	in Russian	in English	Total
Book	3	–	3
Chapter in a book	–	2	2
Paper in a journal	32	154	186
Paper in conference proceedings	8	15	23
Industrial report	10	–	10
Government project report	67	–	67
Preprint or published working paper	5	38	43
Presentation at a conference	16	42	58

**Books:** “Scheduling Theory. Group Technologies” (V.S.Tanaev, M.Y.Kovalyov, Y.M.Shafransky, Minsk, 1998), “Theory of algorithms” (M.Y.Kovalyov, V.M.Kotov, V.V.Lepin, Minsk, 2003), “Information Technologies of Life Cycle Support for Industrial Enterprises” (L.V.Gubich, M.Y.Kovalyov, I.V.Emelianovich, N.I.Petkevich, D.L.Vasiliev, N.P.Mucha, I.I.Shibut, Minsk, 2012).

**Journal certified distinctions:**

European Journal of Operational Research (EJOR) Editors’ Choice Articles 2021 - “Provision-after-wait with preferences ordered by difference: Tighter complexity and better approximation”

Top-10 most cited articles of European Journal of Operational Research (EJOR) in 2007-2011 and Top-20 most cited articles of this journal in 1977-2017 - “A survey of scheduling problems with setup times or costs”, number of citations: 985 in Scopus, 1537 in Google scholar.

30 best papers published by EJOR in 1977-2007 - “Scheduling with batching: a review”, number of citations: 744 in Scopus, 1117 in Google Scholar.

**Number of citations.** Scopus: 4589, *h*-index 29. Google Scholar: 7375, *h*-index 39.

### Main scientific journal articles:

1. Kovalyov M.Y., Shafransky Y.M. The construction of  $\varepsilon$ -approximation algorithms for the optimization of functions in successively constructed sets. U.S.S.R. Comput. Maths. Math. Phys. (Pergamon Journals Ltd.) 1988. V. 26. N 4. P. 30-38.
2. Kovalyov M.Y., Shafransky Y.M., Strusevich V.A., Tanaev V.S., Tuzikov A.V. Approximation scheduling algorithms: a survey. Optimization (Berlin) 1989. N 6. 859-878.
3. Kovalyov M.Y., Potts C.N., Van Wassenhove L.N. A fully polynomial approximation scheme for scheduling a single machine to minimize total weighted late work. Mathematics of Operations Research. 1994. V. 19. N 1. 86-94.
4. Kovalyov M.Y., Tuzikov A.V. Sequencing groups of jobs on a single machine subject to precedence constraints. Applied Mathematics and Computer Science 1994. V. 4. N 4. 635-641.
5. Kovalyov M.Y. Improving the complexities of approximation algorithms for optimization problems. Operations Research Letters. 1995. V. 17. 85-87.
6. Janiak A., Kovalyov M.Y. Single machine group scheduling with ordered criteria. Annals of Operations Research. 1995. V. 57. 191-201.
7. Cheng T.C.E., Kovalyov M.Y. Single machine batch scheduling with deadlines and resource dependent processing times. Operations Research Letters. 1995. V. 17. 243-249.
8. Brucker P., Kovalyov M.Y. Single machine batch scheduling to minimize the weighted number of late jobs. Mathematical Methods of Operations Research. 1996. V. 43. 1-8.
9. Cheng T.C.E., Kovalyov M.Y., Tuzikov A.V. Single machine group scheduling with two ordered criteria. Journal of the Operational Research Society. 1996. V. 47. 315-320.
10. Kovalyov M.Y. A rounding technique to construct approximation algorithms for knapsack and partition type problems. Applied Mathematics and Computer Science. 1996. V.6. N 4. 101-113.
11. Cheng T.C.E., Gordon V.S., Kovalyov M.Y. Single machine scheduling with batch deliveries. European Journal of Operational Research. 1996. V. 94. 277-283.
12. Janiak A., Kovalyov M.Y. Single machine scheduling subject to deadlines and resource dependent processing times. European Journal of Operational Research. 1996. V. 94. 284-291.
13. Cheng T.C.E., Kovalyov M.Y. Batch scheduling and common due date assignment on a single machine. Discrete Applied Mathematics. 1996. V. 70. 231-245.
14. Cheng T.C.E., Chen Z.-L., Kovalyov M.Y., Lin B.M.T. Parallel-machine batching and scheduling to minimize total completion time. IIE Transactions. 1996. V. 28. 953-956.
15. Cheng T.C.E., Kovalyov M.Y., Lin B.M.T. Single machine scheduling to minimize batch delivery and job earliness penalties. SIAM Journal on Optimization. 1997. V. 7. 547-559.
16. Kovalyov M.Y., Werner F. A polynomial approximation scheme for problem  $F2/r_j/C_{max}$ . Operations Research Letters. 1997. V. 20. 75-79.
17. Kovalyov M.Y., Shafransky Y.M. Batch scheduling with deadlines on parallel machines: an NP-hard case. Discrete Applied Mathematics. 1997. V. 64. 69-74.
18. Kovalyov M.Y. Batch scheduling and common due date assignment problem: an NP-hard case. Discrete Applied Mathematics. 1997. V. 80. 251-254.
19. Cheng T.C.E., Janiak A., Kovalyov M.Y. Bicriterion single machine scheduling with resource dependent processing times. SIAM Journal on Optimization. 1998. V. 8. N 2. 617-630.
20. Kovalyov M.Y., Kubiak W. A fully polynomial approximation scheme for minimizing makespan of deteriorating jobs. Journal of Heuristics. 1998. V. 3. 287-297.
21. Kovalyov M.Y., Shafransky Y.M. Uniform machine scheduling of unit-time jobs subject to resource constraints. Discrete Applied Mathematics. 1998. V. 84. 253-257.
22. Brucker P., Gladky A., Hoogeveen H., Kovalyov M.Y., Potts C.N., Tautenhahn T., van de Velde S. Scheduling a batching machine. Journal of Scheduling. 1998. V. 1. 31-54.
23. Brucker P., Kovalyov M.Y., Shafransky Y.M., Werner F. Parallel machine batch scheduling with deadlines and sequence-independent setup times. Annals of Operations Research. 1998. V. 83. 23-40.

24. Cheng T.C.E., Kovalyov M.Y. An exact algorithm for batching and scheduling two part types in a mixed shop: a technical note. *International Journal of Production Economics*. 1998. V. 55. N 1. 53-56.
25. Cheng T.C.E., Kovalyov M.Y. Complexity of parallel machine scheduling with processing-plus-wait due dates to minimize maximum absolute lateness. *European Journal of Operational Research*. 1999. V. 114. N 2. 403-410.
26. Kovalyov M.Y., Kubiak W. A fully polynomial approximation scheme for the weighted earliness-tardiness problem. *Operations Research*. 1999. V. 47. N 5. 757-761.
27. Cheng T.C.E., Kovalyov M.Y. Parallel machine batching and scheduling with deadlines. *Journal of Scheduling*. 2000. V. 3. 109-123.
28. Potts C.N., Kovalyov M.Y. Scheduling with batching: a review. *European Journal of Operational Research*. 2000. V. 120. 228-249.
29. Cheng T.C.E., Kovalyov M.Y. Single machine batch scheduling with sequential job processing. *IIE Transactions*. 2001 V. 33. 413-420.
30. Kovalyov M.Y., Kubiak W., Yeomans J.S. A computational analysis of balanced JIT optimization algorithms. *INFOR*. 2001. V. 39. N 3. 299-316.
31. Pattloch M., Schmidt G., Kovalyov M.Y. Heuristic algorithms for lotsize scheduling with application in the tobacco industry. *Computers and Industrial Engineering*. 2001. V. 39. 235-253.
32. Cheng T.C.E., Janiak A., Kovalyov M.Y. Single machine batch scheduling with resource dependent setup and processing times. *European Journal of Operational Research*. 2001. V. 135. 177-183.
33. Cheng T.C.E., Kovalyov M.Y. Single supplier scheduling for multiple deliveries. *Annals of Operations Research*. 2001. V. 107. 51-63.
34. Kovalyov M.Y., Werner F. Approximation schemes for scheduling jobs with common due date to minimize total tardiness. *Journal of Heuristics*. 2002. V. 8. 415-428.
35. Kubiak W., Cheng J., Kovalyov M.Y. Fast fully polynomial approximation schemes for minimizing completion time variance. *European Journal of Operational Research*. 2002. V. 137. 303-309.
36. Kovalyov M.Y., Pattloch M., Schmidt G. A polynomial algorithm for lot-size scheduling of two task types. *Information Processing Letters*. 2002. V. 83. 229-235.
37. Bachman A., Janiak A., Kovalyov M.Y. Minimizing the total weighted completion time of deteriorating jobs. *Information Processing Letters*. 2002. V. 81. 81-84.
38. Blazewicz J., Kovalyov M.Y. Complexity of two group scheduling problems. *Journal of Scheduling*. 2002. V. 5. 477-485.
39. Cheng T.C.E., Kovalyov M.Y. An unconstrained optimization problem is NP-hard given an oracle representation of its objective function: a technical note. *Computers and Operations Research*. 2002. V. 29. 2087-2091.
40. Cheng T.C.E., Ding Q., Kovalyov M.Y., Bachman A., Janiak A. Scheduling jobs with piecewise linear decreasing processing times. *Naval Research Logistics*. 2003. V. 50. 1-24.
41. Ng C.T., Cheng T.C.E., Kovalyov M.Y., Lam S.S. Single machine scheduling with a variable common due date and resource dependent processing times. *Computers and Operations Research*. 2003. V. 30. 1173-1185.
42. Ng C.T.D., Cheng T.C.E., Kovalyov M.Y. Batch scheduling with controllable setup and processing times to minimize total completion time. *Journal of the Operational Research Society*. 2003. V. 54. 499-506.
43. Cheng T.C.E., Kovalyov M.Y. Scheduling a single server in a two-machine flow shop. *Computing*. 2003. V. 70. 167-180.
44. Ng C.T., Cheng T.C.E., Kovalyov M.Y. Single machine batch scheduling with jointly compressible setup and processing times. *European Journal of Operational Research*. 2004. V. 153. 211-219.
45. Cheng T.C.E., Kovalyov M.Y., Chakhlevich K.N. Batching in a two-stage flowshop with dedicated machines in the second stage. *IIE Transactions*. 2004. V. 36. 87-93.
46. Kovalyov M.Y., Potts C.N., Strusevich V.A. Batching decisions for assembly production systems. *European Journal of Operational Research*. 2004. V.157. 620-642.

47. Ng C.T., Kovalyov M.Y. An FPTAS for scheduling two-machine flowshop with one unavailability interval. *Naval Research Logistics*. 2004. V. 51. 307-315.
48. Aloulou M.A., Kovalyov M.Y., Portmann M.-C. Maximization problems in single machine scheduling. *Annals of Operations Research*. 2004. V. 129. 21-32.
49. Blazewicz J., Machowiak M., Weglarz J., Kovalyov M.Y., Trystram D. Scheduling malleable tasks on parallel processors to minimize the makespan. *Annals of Operations Research*. 2004. V. 129. 65-80.
50. Janiak A., Kovalyov M.Y., Kubiak W., Werner F. Positive half-products and scheduling with controllable processing times. *European Journal of Operational Research*. 2005. V. 165. 416-422.
51. Janiak A., Kovalyov M.Y., Portmann M.-C. Single machine group scheduling with resource dependent setup and processing times. *European Journal of Operational Research*. 2005. V. 162. 112-121.
52. Oulamara A., Kovalyov M.Y., Finke G. Scheduling a no-wait flow shop with unbounded batching machines. *IIE Transactions*. 2005. V. 37. 685-696.
53. Ng C.T., Cheng T.C.E., Janiak A., Kovalyov M.Y. Group scheduling with controllable setup and processing times: minimizing total weighted completion time. *Annals of Operations Research*. 2005. V. 133. 163-174.
54. Janiak A., Kovalyov M.Y. Scheduling in a contaminated area: a model and polynomial algorithms. *European Journal of Operational Research*. V. 173. 2006. 125-132.
55. Cheng T.C.E., Kovalyov M.Y., Shakhlevich N.V. Scheduling with controllable release dates and processing times: Makespan minimization. *European Journal of Operational Research*. V. 175. 2006. 751-768.
56. Cheng T.C.E., Kovalyov M.Y., Shakhlevich N.V. Scheduling with controllable release dates and processing times: Total completion time minimization. *European Journal of Operational Research*. V. 175. 2006. 769-781.
57. Blazewicz J., Machowiak M., Weglarz J., Kovalyov M.Y., Trystram D. Preemptable malleable task scheduling problem. *IEEE Transactions on Computers*. V. 55. 2006. 486-490.
58. Inderfurth K., Janiak A., Kovalyov M.Y., Werner F. Batching work and rework processes with limited deterioration of reworkables. *Computers and Operations Research*. V.33. 2006. 1595-1605.
59. Janiak A., Kovalyov M.Y. Job sequencing with exponential functions of processing times. *Informatica*. 2006. V. 17. 13-24.
60. Chubanov S., Kovalyov M.Y., Pesch E. An FPTAS for a single-item capacitated economic lot-sizing problem with monotone cost structure. *Mathematical Programming Series A*. 2006. V. 106. 453-466.
61. Kovalyov M.Y., Portmann M.-C., Oulamara A. Optimal testing and repairing a failed series system. *Journal of Combinatorial Optimization*. 2006. V. 12. 279-295.
62. Janiak A., Kovalyov M.Y. Scheduling deteriorating jobs. In: *Scheduling in computer and manufacturing systems*, Wydawnictwa Komunikacji i Łączności, Warszawa, Poland, 2006. pp. 12-22.
63. Kovalyov M.Y., Werner F. Problem  $F2||C_{\max}$  with jobs forbidden in the first or last position is easy. *European Journal of Operational Research*. 2007. V. 177. 1310-1311.
64. Kovalyov M.Y., Ng C.T., Cheng T.C.E. Fixed interval scheduling: models, applications, computational complexity and algorithms. *European Journal of Operational Research*. 2007. V. 178. 331-342.
65. Cheng T.C.E., Ng C.T.D., Kovalyov M.Y. Special issue on scheduling in batch-processing industries and supply chains. *International Journal of Production Economics*. 2007. V. 105. 299-300.
66. Inderfurth K., Kovalyov M.Y., Ng C.T., Werner F. Cost minimizing scheduling of work and rework processes on a single facility under deterioration of reworkables. *International Journal of Production Economics*. 2007. V. 105. 345-356.
67. Aloulou M.A., Kovalyov M.Y., Portmann M.-C. Evaluating flexible solutions in single machine scheduling via objective function maximization: the study of computational complexity. *RAIRO*. 2007. V. 41. 1-18.
68. Janiak A., Kovalyov M.Y., Marek M. Soft due window assignment and scheduling on parallel machines. *IEEE Transactions on System, Man, and Cybernetics - Part A: Systems and Humans*. 2007. V. 37. N 5. 614-620.

69. Al-Anzi F.S., Allahverdi A., Kovalyov M.Y. Batching deteriorating items with applications in computer communication and reverse logistics. *European Journal of Operational Research*. 2007. V. 182. 1002-1011.
70. Blazewicz J., Burke E., Kasprzak M., Kovalev A., Kovalyov M.Y. Simplified Partial Digest Problem: enumerative and dynamic programming algorithms. *IEEE Transactions on Computational Biology and Bioinformatics*. 2007. V.4. N.4. 668-680.
71. Ng C.T., Kovalyov M.Y. Batching and scheduling in a multi-machine flow shop. *Journal of Scheduling*. 2007. V.10. N 6. 353-364.
72. Barketau M.S., Cheng T.C.E., Kovalyov M.Y., Ng C.T. Batch scheduling of deteriorating products. *Decision Making in Manufacturing and Service*. 2007. V.1. N 1-2. 25-34.
73. Barketau M.S., Cheng T.C.E., Ng C.T., Kotov V.M., Kovalyov M.Y. Batch scheduling of step deteriorating jobs. *Journal of Scheduling*. 2008. V. 11. N 1. 17-28.
74. Allahverdi A., Ng C.T., Cheng T.C.E., Kovalyov M.Y. A survey of scheduling problems with setup times or costs. *European Journal of Operational Research*. 2008. V. 187. 985-1032.
75. Kovalyov M.Y., Martello S. Special issue on combinatorics for modern manufacturing, logistics and supply chains. *European Journal of Operational Research*. 2008. V. 189. 803-806.
76. Chubanov S., Kovalyov M.Y., Pesch E. A single-item economic lot-sizing problem with a non-uniform resource: approximation. *European Journal of Operational Research*. 2008. V. 189. 877-889.
77. Barketau M.S., Cheng T.C.E., Kovalyov M.Y. Batch scheduling of deteriorating reworkables. *European Journal of Operational Research*. 2008. Vol. 11. 17-28.
78. Ng C.T., Kovalyov M.Y., Cheng T.C.E. An FPTAS for a supply scheduling problem with non-monotone cost functions. *Naval Research Logistics*. 2008. V. 55. 194-199.
79. Cheng T.C.E., Kovalyov M.Y., Ng C.T., Lam S.S. Group sequencing around a common due date. *Discrete Optimization*. 2008. V. 5. 594-604.
80. Ereemeev A.V., Kovalyov M.Y., Kuznetsov P.M. Approximate solution of the control problem of supplies with many intervals and concave cost functions. *Automation and Remote Control*. 2008. V. 69. 1181-1187.
81. Dolgui A., Kovalyov M.Y., Shchamialiova K. Lot-sizing and sequencing on a single imperfect machine. In: H.A. Le Thi, P. Bouvry, and T. Pham Dinh (Eds.), *MCO 2008. Communications in Computer and Information Science*. 2008. V. 14. 117-125.
82. Janiak A., Kovalyov M.Y. Scheduling in a contaminated area: a model and heuristic algorithms. *Journal of the Operational Research Society*. V. 59. 2008. 977-987.
83. Ng C.T., Cheng T.C.E., Kotov V., Kovalyov M.Y. The EOQ problem with decidable warehouse capacity: analysis, solution approaches and applications. *Discrete Applied Mathematics*. 2009. V. 157. 1806-1824.
84. Blazewicz J., Burke E., Kasprzak M., Kovalev A., Kovalyov M.Y. On the approximability of the Simplified Partial Digest Problem. *Discrete Applied Mathematics*. 2009. Vol. 157. 3586-3592.
85. Ng C.T., Kovalyov M.Y., Cheng T.C.E. A simple FPTAS for a single-item capacitated economic lot-sizing problem with a monotone cost structure. *European Journal of Operational Research*. 2010. Vol. 200. 621-624.
86. Dolgui A., Ereemeev A.V., Kovalyov M.Y., Kuznetsov P.M. Multi-product lot-sizing and scheduling on unrelated parallel machines. *IIE Transactions*. 2010. V. 42. N 7. 514-524
87. Blazewicz J., Kovalyov M.Y., Musial J., Urbansky A.P., Wojciechowsky A. Internet shopping optimization problem. *International Journal of Applied Mathematics and Computer Science*. 2010. Vol. 20. N 2. 385-390.
88. Ng C.T., Barketau M.S., Cheng T.C.E., Kovalyov M.Y. "Product Partition" and related problems of scheduling and systems reliability: Computational complexity and approximation. *European Journal of Operational Research*. 2010. V. 207. 601-604.
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