Prof. Dr. Erwin Pesch

Curriculum Vitae

▬▬ 1 Personal Data

Affiliation	University of Siegen
Address	Kohlbettstr. 15, 57072 Siegen, Germany
Email	erwin.pesch[at]uni-siegen.de
Phone	+49 (0)271 740 2420

▬▬ 2.1 Professional Career

since 10/2001	**Professor (C4, W3)** Professor of Management Information Systems and Decision Science, University of Siegen
since 07/2016	**Director of the Center for Advanced Studies in Management (CASiM)** HHL Leipzig Graduate School of Management
04/1994– 10/2001	**Professor of Production Management** Department of Economics, University of Bonn
04/1989– 11/1994	**Assistant Professor** School of Business and Economics, Maastricht University, NL
10/1985– 04/1989	**Research Assistant** Department of Law and Economics, Technical University Darmstadt
06/1984– 08/1985	**Employee Commerzbank AG** Frankfurt/M, Software Quality Control

▬▬ 2.2 Education

12/1993	**Habilitation**, *Department of Law and Economics, Technical University Darmstadt*
04/1987	**Dr. rer. nat.**, *Department of Mathematics, Technical University Darmstadt*
10/1978– 11/1983	**Study of Mathematics and Computer Science** Technical University Darmstadt
Languages	**German (native), English, Dutch (fluent), Polish (basics, A1 level)**

▬▬ 2.3 Invited as Guest Researcher

University of Bayreuth, *Germany*
10/1995–02/1996

Tongji University, *Shanghai, China*
10/1988–11/1988, 12/2002, 12/2003, 11/2004

University of Colorado, *Boulder, USA*
11/1992, 10/1993, 05/1997, 07/1998

George Mason University, *Fairfax, USA*
12/1992, 11/1993, 08/1994, 11/1995

MIT, *Cambridge, USA*
04/1997

University of California, *Berkeley, USA*
08/1998

University of Vienna, *Austria*
06/2001

Columbia University, *New York, USA*
09/2002

Poznan University of Technology, *Poland*
annually since 1992

AGH University, *Cracow, Poland*
03/2013–04/2013, 03/2015–04/2015

University of Nottingham, *UK*
about 20 visits 2004–2018

2.4 Postdocs who became Professor

Dominik Kress, *Hamburg*

Florian Jaehn, *Hamburg*

Sönke Lieberam Schmidt, *Hannover*

David Müller, *Nürnberg*

Alena Otto, *Passau*

3.1 Research Funding (DFG - National Science Foundation) and Awards

1993–1994 **DFG** Scholarship, *Local Search Based Learning in Automated Manufacturing*

1996–2003 Funded **DFG** Project *Knowledge-based Approaches for Resource Constrained Project Scheduling (Wissensbasierte Ansätze zur Projektplanung bei beschränkten Ressourcen)*

2004–2007 Funded **DFG** Project *Planning and Scheduling of Ground Handling at Airports (Planung der Bodenabfertigung an Flughäfen)*

2006–2008 Funded **DFG** Project *Network Flow Problems with Nonlinear Costs (Netzwerkflussprobleme mit nicht-linearen Kosten): Fully polynomial time approximation schemes (FPTAS)*

2010–2015 Funded **DFG** Project *Optimization of Container Handling in Transshipment Yards (Optimierung der Containerabfertigung in Umschlagbahnhöfen)*

2014–2017	Funded **DFG** Project *Conflict-free Yard Crane Routing with Interaction and Interference (Steuerung von Schienen-Portalkränen unter Berücksichtigung gegenseitiger Behinderungen)*
2020–2023	Funded **DFG** Project (with A. Otto, D. Kreß) *Sustainable Personnel Planning in Highly Customized Assembly Lines with Work Sharing*
2023–2026	Funded **DFG** Project *Data-driven Optimization Techniques for Integrated Process Planning and Scheduling*
2001–2005	Funded **BMBF** (German Ministry of Research and Education) Project *Dynamic Lotsizing and Scheduling Problems with Sequence Dependent Setup Times*
1985	**Federal Award for Distinct Young Scientists**: Scholarship (out of two for the whole university) of the German federal state *Hessen*
since 2005	**Ranked among 0,5 % top researchers** in all publication based rankings of ~4000 professors (Germany, Austria, Switzerland) in Business Administration and IT (Die Betriebswirtschaft 65 (2005), Handelsblatt 2005, 2012, 2014, Wirtschaftswoche 2019, 2020, 2022, 2024)
2008	**Minister Scientific Award** of the Polish Minister for Research and Education
2012	**Copernicus Award** of the German National Science Foundation (Deutsche Forschungsgemeinschaft – **DFG**)
2017	**Science Award (Wissenschaftspreis)** of the German Operations Research Society (GOR) (the highest distinction of the society)
2018	**Appreciation of Special International Engagement** (Besonderes Engagement internationaler Zusammenarbeit at University of Siegen)
2019–2022	Member of the Board of Curators of the **Polish Academy of Sciences**
2020	The Computer Science Committee of the **Polish Academy of Sciences** awarded our *Handbook on Scheduling* as *Distinguished Monograph*
2021	**European Journal of Operational Research Editors Award** 2021 in recognition of an outstanding contribution to the quality of the journal
since 2020	**Extraordinary Professor**, Faculty of Industrial Engineering, University of Stellenbosch, South Africa
Offers from	Universities of Bonn, Siegen, Vienna, Nottingham, Darmstadt

3.2 Selection of Invitations to Keynote / Plenary Talks

1998	Semi-plenary talk at the *Int. Conf. on Operations Research* of the societies GOR (Germany), ÖGOR (Austria) and SVOR (Switzerland) in Zürich, Switzerland
2004	Semi-plenary talk at the *20th EURO XX - European Conf. on Operational Research* in Rhodes, Greece
2006	Plenary talk at the *Int. Symposium on Scheduling (ISS2006)* in Tokyo, Japan
2007	Keynote talk at the *IEEE Conf. on Computational Intelligence* in Honolulu, USA
2008	Plenary talk at the *7th Int. Conf. for the Practice and Theory of Automated Timetabling (PATAT 2008)*, Montreal, Canada

Plenary talk at the *EPSRC National Taught Course Centre for Operational Research (NATCOR) course on Heuristics and Approximation Algorithms* in Nottingham, UK

2010 Keynote talk at the *IEEE Conf. on Computational Intelligence* in Barcelona, Spain

Plenary talk at the *EPSRC National Taught Course Centre for Operational Research (NATCOR) course on Heuristics and Approximation Algorithms* in Nottingham, UK

2012 Plenary talk at the *EPSRC National Taught Course Centre for Operational Research (NATCOR) course on Heuristics and Approximation Algorithms* in Nottingham, UK

2013 Plenary talk at the *IFAC Conf. on Manufacturing Modeling, Management, and Control*, Saint-Petersburg, Russia

2014 Plenary talk at the 5th *Int. Conf. on Engineering, Project, and Product Management (EPPM 2014)* in Port Elizabeth, South Africa

Keynote talk at the 1st *TOR Workshop Operations Research in den Ingenieurwissenschaften* 2014

2015 Keynote talk at the *IEEE Conf. on Computational Intelligence* in Cape Town, South Africa

Plenary talk at the 28th *European Conf. on Combinatorial Optimization (ECCO XXVIII)* in Catania, Italy

2016 Keynote talk at the *CASiM Conf. European Cities at Dynamic Competition* in Leipzig 2016

Plenary talk at the *ORSIS 2016 – Conf. of the Operations Research Society of Israel* in Jerusalem

Opening plenary talk at the 45th *ORSSA Annual Conf. of the Operations Research Society of South Africa* in Stellenbosch

Plenary talk at the *Int. Conf. on Industrial Logistics (ICIL 2016)* in Zakopane, Poland

2017 Invited tutorial at the 27th *Workshop Quantitative BWL - QBWL*, Sylt

Plenary talk at the 4th *Int. Conf. on Management Science and Management Innovation* in Suzhou, China

Plenary talk at the 4th *Int. Conf. of Operations Research* (InteriOR 2017) in Medan, Indonesia

2018 Plenary talk at the *Logistics Analytics* conference in Minsk, Belarus

Plenary talk at the 16th *International Workshop on Project Management and Scheduling (PMS)* in Rome, Italy

2019 Keynote talk at the *IFAC Conf. on Manufacturing Modelling, Management, and Control* Berlin

Invited tutorial at the 48th *ORSSA Annual Conf. of the Operations Research Society of South Africa* in Cape Town

2020 Plenary talk at the *IEEE 7th Int. Conf. on Industrial Engineering and Applications* (ICIEA 2020-Europe) in Paris, France

2021 Plenary talk at the *Int. Symposium on Scheduling (ISS2021)* in Japan

2023 Talk at the *International Scheduling Seminar* 2023, *https://schedulingseminar.com/*

Keynote talk at the *13th International Conference on Business Intelligence and Technology (BUSTECH 2023)* in Nice, France

3.3 Journal Editorship

Area Editor of

○ Omega – The Int. Journal of Management Science 2008–2024
○ Annals of Operations Research since 2009
○ INFORMS Journal on Computing since 2019
○ Journal of Heuristics since 2019

Associate Editor/
Editorial Board of

○ Journal of Scheduling since 2005
○ European Journal of Operational Research since 2005
○ Decision Making in Manufacturing and Services since 2006
○ Operations Research Letters since 2008
○ Int. Journal of Production Research since 2008
○ Information Systems and e-Business Management since 2011
○ Foundations of Computing and Decision Sciences since 2013
○ Engineering Management in Production and Services since 2017
○ Int. Journal of Management Science and Engineering Management since 2021
○ Omega – The Int. Journal of Management Science 2003–2008
○ INFORMS Journal on Computing 2007–2018
○ Journal of Heuristics 1995–2019
○ Memetic Computing 2007–2018
○ Journal of Engineering, Project, and Production Management since 2011–2019

Advisory Editor of

○ OR Spectrum 1992–2006
○ Harvard Deusto Business Research since 2016
○ Informatics since 2021

3.4 Assessment for Research Funding Organizations and Faculties

I have been invited as

- Member of the Expert Panel of the National Science Centre, Poland (NCN)
- Member of the EPSRC Peer Review Colleges (Engineering and Physical Sciences Research Council) of the UK
- International Advisor of NATCOR (National Taught Course Centre in Operational Research) in the UK from 2006–2016
- Member of the DAASE Advisory Board (UK) from 2013–2018

I have been invited many times to assess research proposals for the following national science foundations:

- National Science Foundation (USA)
- Technology Foundation (Dutch Science Foundation)
- Schweizerischen Nationalfonds zur Förderung der wissenschaftlichen Forschung (Swiss National Science Foundation)
- Natural Sciences and Engineering Research Council of Canada (NSERC)
- German National Science Foundation - Deutschen Forschungsgemeinschaft (DFG) (Research Grants and Collaborative Research Centres (SFB))
- German-Israeli Foundation (GIF) for Scientific Research
- Israel Science Foundation (ISF)
- Fonds National de la Recherche (Luxembourg)
- Fonds Wetenschappelijk Onderzoek – FWO (Research Council Belgium)
- Isaac Newton Institute for Mathematical Sciences, Cambridge, England
- INRIA- Institut National de Recherche en Informatique et Automatique (France)
- Alexander von Humboldt-Foundation (Sofia-Kovalevskaja-Prize)
- Alexander von Humboldt-Foundation (Research Grants)
- Narodowe Centrum Nauki - NCN (National Science Centre Poland)
- Reviewer for appointing an associate/full professor in Canada, England, France, Israel, Luxemburg, Poland, Spain, Switzerland (EPFL Lausanne), Turkey, Germany (Aachen, Mannheim, Karlsruhe, Augsburg, Frankfurt, Munich, Duisburg, Darmstadt) and Distinguished Professor in South Africa
- Reviewer for awarding a Dr. honoris causa (Warsaw)
- Reviewer for PhD theses in Canada, Germany, Israel, Malysia, Netherlands, Poland, South Africa, UK

3.5 Refereeing for Scientific Journals

I have been referee for the following scientific journals (about 20 reviews per year):

- Operations Research
- Transportation Science
- Mathematical Programming
- Management Science
- Production and Operations Management
- Discrete Applied Mathematics
- Discrete Mathematics
- INFORMS Journal on Computing
- Omega
- Journal of Scheduling
- Mathematical Methods in Operations Research (MMOR)
- OR Spectrum
- Information Systems and Operational Research (INFOR)
- Journal of Business Economics
- Journal of Heuristics
- Naval Research Logistics
- IEEE Transactions on Systems, Man and Cybernetics
- IEEE Transactions on Evolutionary Computation
- Int. Journal of Production Research
- Int. J. Flexible Manufacturing Systems
- Int. Transactions in Operational Research
- Information Science
- Business Research
- Mathematical Problems in Engineering
- South African Journal of Industrial Engineering
- Zentralblatt MATH
- Mathematical Methods in the Applied Sciences
- Automation and Construction
- Engineering Optimization
- J. Industrial and Management Optimization
- IEEE Access
- European Journal of Operational Research
- Discrete Optimization
- Artificial Intelligence
- Annals of Operations Research
- OR Letters
- Computers & Operations Research
- Information Processing Letters
- Computational Management Science
- Journal of Combinatorial Optimization
- IEEE Transactions on Parallel and Distributed Systems
- Computers and Industrial Engineering
- Int. J. Production Economics
- Journal of the Operational Research Society (JORS)
- IEEE Transactions on Intelligent Transportation Systems
- Lecture Notes in Computer Science
- Flexible Services and Manufacturing
- Production Planning and Control
- RAIRO
- Zeitschrift für Wirtschafts- und Sozialwissenschaften
- Journal of Mathematical Modeling and Algorithms
- Central European Journal of Operations Research
- IET Control Theory & Applications
- Transactions on Evolutionary Computation
- Journal of Optimization Theory and Applications (JOTA)
- Pacific Journal on Optimization
- Int. Journal of Applied Mathematics and Computer Science
- Journal of Advanced Transportation
- IEEE Transactions on Automation Science and Engineering
- numerous Conference Proceedings

4.1 Organization of Conferences

Main organizer of

2009 **23rd European Conference on Operational Research - EURO2009**
in Bonn. This is the main Operational Research conference in Europe and with >2500 delegates it was the second largest EURO Conference ever. The largest one was in Rome 2013.

2001 **14th European Conference on Combinatorial Optimization (ECCO XIV)**
University of Bonn, cf. OR News 13 (2001)

2000 **10th Workshop Quantitative Betriebswirtschaftslehre**
University of Bonn

Co-organizer of

2002-2014 **Project Management and Scheduling**
Vice chair of the GOR working group

1998 **4th Workshop on Project Scheduling with Resource Constraints**
Schloß Dagstuhl

1999 **7th Workshop on Project Scheduling with Resource Constraints**
Schloß Dagstuhl

2004 **5th Seminar on Scheduling Computer and Manufacturing Processes**
Schloß Dagstuhl (with J. Błażewicz, E. Burke, K. Ecker, D. Trystram)

2006 **6th Seminar on Scheduling Computer and Manufacturing Processes**
Marseilles, Luminy (with M. Bender, J. Błażewicz, K. Ecker, D. Trystram)

2008 **7th Seminar on Scheduling Computer and Manufacturing Processes**
Marseilles, Luminy (with M. Bender, J. Błażewicz, D. Trystram, G. Zhang)

2010 **8th Seminar on Scheduling Computer and Manufacturing Processes**
Centre CNRS Frejus (with M. Bender, J. Błażewicz, D. Trystram, G. Zhang)

2011 **9th Seminar on Scheduling Computer and Manufacturing Processes**
Zhejiang University, Hangzhou (with J. Błażewicz, D. Trystram, G. Zhang)

2012 **10th Seminar on Scheduling Computer and Manufacturing Processes**
Centre CNRS Frejus (with J. Błażewicz, C. Phillips, D. Trystram, G. Zhang)

2014 **11th Seminar on Scheduling Computer and Manufacturing Processes**
CNRS Center in Aussois (with J. Błażewicz, B. Moseley, D. Trystram, G. Zhang)

2015 **1st Workshop on Theory and Applications of Operations Research for Sustainability" (TAORS)**
Barcelona (co-chair)

2016 **12th Seminar on Scheduling Computer and Manufacturing Processes**
CNRS Center in Aussois (with J. Błażewicz, B. Moseley, D. Trystram, G. Zhang)

2017 **8th International Conference on Engineering, Project and Production Management(EPPM)**
AlZaytoonah University of Jordan, Amman (scientific co-chair)

2018	**13th Seminar on Scheduling Computer and Manufacturing Processes** CNRS Center in Aussois (with J. Błażewicz, B. Moseley, D. Trystram, G. Zhang)
2019	**14th Seminar on Scheduling Computer and Manufacturing Processes** Tsinghua Sanya International Mathematical Forum (TSIMF) (with J. Błażewicz, M. Lu, B. Moseley, D. Trystram, G. Zhang)
2022	**15th Seminar on Scheduling Computer and Manufacturing Processes** CNRS Center in Aussois (with M. Bender, J. Błażewicz, K. Pruhs, D. Trystram, G. Zhang)

4.2 Organization of Conference Streams

GOR2001	**Scheduling and Project Management** GOR conference in Duisburg (with R. Kolisch)
SOR2002	**Scheduling and Project Management** GOR/SVOR/ÖGOR conference in Klagenfurt (with P. Brucker)
GOR2005	**Scheduling and Project Management** GOR conference in Bremen (with R. Kolisch)
WI2006	**Information Systems in Transportation and Traffic** Multi-conference Wirtschaftsinformatik (MKWI) in Passau
GOR2007	**Scheduling and Project Management** GOR conference in Saarbrücken
EURO2010	**Scheduling and Project Management** EURO conference in Lisbon (19 Sessions)
EURO2010	**Emerging Applications of OR** EURO conference in Lisbon (with G.W. Weber, 15 Sessions)
ALIO2010	**Scheduling, Project Management and Timetabling** ALIO/INFORMS conference in Buenos Aires
GOR2011	**Scheduling, Timetabling, and Project Management** GOR conference in Zürich (with N. Trautmann, U. Pferschy)
EURO2012	**Scheduling** EURO conference in Vilnius (with V. Strusevich)
GOR2012	**Scheduling and Project Management** GOR conference in Hannover (with N. Trautmann, U. Pferschy)
IFAC2012	**Scheduling** 14th IFAC Symposium on Information Control Problems in Manufacturing–INCOM'12 in Bucharest (with D. Briskorn and F. Werner)
ECCO2012	**Scheduling and Project Management** ECCO XXV in Antalya
EURO2013	**Scheduling** EURO conference in Rome (with V. Strusevich)
GOR2013	**Scheduling and Project Management** GOR conference in Rotterdam

VHB2013 **Terminal Logistik**
Conference *Logistik Management* of the Wissenschaftliche Kommission Logistik im Verband der Hochschullehrer für Betriebswirtschaft e.V. (VHB) in Bremen

IFORS2014 **Scheduling**
IFORS conference in Barcelona

GOR2015 **Scheduling, Project Management**
OEGOR, SVOR/ASRO and GOR joint conference in Vienna (with W. Gutjahr, U. Pferschy, N. Trautmann)

EURO2016 **Supply Chain Scheduling and Logistics**
EURO conference in Poznan (with A. Otto)

IFORS2017 **Scheduling in Logistics**
IFORS conference in Quebec City (with D. Kress)

IFORS2017 **Timetabling and Project Management**
IFORS conference in Quebec City (with D. Kress)

IFORS2023 **Scheduling in Logistics**
IFORS conference in Santiago (with A. Otto)

4.3 Organization of Conference Sessions

1995-2022 **EURO, IFORS, ISMP, INFORMS, GOR**
I have regularly been organizing sessions at INFORMS (1995, 1997, 2004), ISMP (2000, 2012), IFORS (2005, 2011) conferences and at nearly all GOR (since 2001) and EURO conferences (since 2006), except for my own large EURO conference in Bonn with more than 2500 delegates.

4.4 Programme Committee Member of the

MIC **Metaheuristics conferences (MIC)**
in Breckenridge (USA) 1995, Sophia Antipolis (France) 1997, Kyoto 2003, Vienna 2005, Montreal 2007, Hamburg 2009, Udine 2011, Singapore 2013, Agadir 2015, Barcelona 2017, Cartagena (Colombia) 2019, Ortigia-Syracuse 2022, Lorient 2024

PMS **7th , 8th , 9th , 10th, 11th, 12th, 13th, 14th, 15th, 16th, 17th, 18th Int. Workshop on Project Management and Scheduling (PMS)**
in Osnabrück 2000, Valencia 2002, Nancy 2004, Poznan 2006, Istanbul 2008, Tours 2010, Leuven 2012, München 2014, Valencia 2016, Rome 2018, Toulouse 2021, Ghent 2022

MISTA **1st, 2nd, 3rd, 4th, 5th, 7th, 8th, 9th Multidisciplinary Int. Conference on Scheduling Theory and Applications (MISTA)**
in Nottingham 2003, New York 2005, Paris 2007, Dublin 2009, Phoenix 2011, Prague 2015, Kuala Lumpur 2017, Ningbo 2019

ECCO **14th, 17th, 18th European Conference on Combinatorial Optimization (ECCO)**
in Bonn 2001, Beirut 2004, Minsk 2005

SCM **Conference Entscheidungsunterstützende Systeme in Supply Chain Management und Logistik**
Paderborn 2005

ALIO/EURO **5th ALIO/EURO Conference on Combinatorial Optimization**
in Paris 2005

GECCO	**_Genetic and Evolutionary Computation Conference (GECCO)_**
	in Washington D.C. 2005
ISS	**_Int. Symposium on Scheduling (ISS)_**
	in Tokyo 2006, Nagoya 2009, Osaka 2011, Tokyo 2013, Kobe 2015
MAPSP	**8th Workshop on _Models and Algorithms for Planning and Scheduling Problems (MAPSP)_**
	in Istanbul 2007
EURO	**22nd, 23rd _European Conference on Operational Research (EURO)_**
	in Prague 2007, Bonn 2009
GI	**Workshop _Kollaboration in der Transportlogistik_**
	of the German Computer Science Society (GI) annual conference in Bremen 2007
MKWI	**Workshop _Intelligente Systeme zur Entscheidungsunterstützung_**
	of the Multi-Conference Wirtschaftsinformatik (MKWI) in Munich 2008
GOR	**GOR Conference**
	in Augsburg 2008, Munich 2010
PATAT	**7th, 8th, 10th, 11th, 12th, 13th, 14th Int. Conference on the _Practice and Theory of Automated Timetabling (PATAT)_**
	in Montreal 2008, Belfast 2010, York 2014, Udine 2016, Vienna 2018; Leuven 2022; Copenhagen 2024
IEEE	**IEEE Workshop on _Computational Intelligence_ in Production and Logistics Systems**
	in Paris 2011, Orlando 2014, Cape Town 2015, Athens 2016
IEEE	**IEEE Symposium on _Computational Intelligence_ in Scheduling**
	in Paris 2011, Cape Town 2015
EPPM	**2nd, 4th, 5th, 6th, 7th, 8th, 9th, 10th Int. Conference on _Engineering, Project and Production Management (EPPM)_**
	in Singapore 2011, Bangkok 2013, Port Elizabeth 2014, Gold Coast 2015, Bialystok 2016, Amman 2017, Cape Town 2018, Berlin 2019
IFAC	**14th, 15th, 16th IFAC Symposium on _Information Control Problems in Manufacturing (INCOM)_**
	in Bucharest 2012, Ottawa, 2015, Bergamo 2018
LOGMS	**Int. Conference on _Logistics and Maritime Systems (LOGMS)_**
	in Bremen 2012, Singapore 2013
IFAC	**7th, 8th, 9th, 10th IFAC Conference on _Manufacturing Modelling, Management, and Control_**
	in Saint-Petersburg 2013, Troyes 2016, Berlin 2019; Nantes 2022
VHB	**Conference _Logistik Management_**
	of the Wissenschaftlichen Kommission Logistik im Verband der Hochschullehrer für Betriebswirtschaft e.V. (VHB) in Dresden 2005, Bremen 2013, Braunschweig 2015, Stuttgart 2017
SEA	**13th _Symposium on Experimental Algorithms (SEA)_**
	in Copenhagen 2014

APMOD **11th, 12th Int. Conference on *Applied Mathematical Programming and Modelling (APMOD)***
in Warwick 2014, Brno 2016

SENSORNETS **3rd, 5th, 8th, 9th Int. Conference on *Sensor Networks (SENSORNETS)***
in Lisbon 2014, Rome 2016, Prague 2019, Valletta 2020

WBM **5th Conference on *Web Based Business Management (WBM)***
in Beijing 2014

KIMS **6th, 7th, 8th, 9th, 10th, 11th Int. Conference on Knowledge Management and Information Sharing (KIMS)**
in Rom 2014, Lisbon 2015, Porto 2016, Funchal (Madeira) 2017, Seville 2018, Vienna 2019

BUSTECH **6th, 7th, 8th, 9th, 10th, 11th, 12th, 13th, 14th, 15th Int. Conference on *Business Intelligence and Technology (BUSTECH)***
in Rome 2016, Athens 2017, Barcelona 2018, Venice 2019, Nice 2020, Porto 2021, Barcelona 2022, Nice 2023, Venice 2024, Valencia 2025

ICCCS **2nd, 4th Int. Conference on *Computers and Communications Systems (ICCCS)***
in Cracow 2017, Singapore 2019

ICII **5th Int. Conference on *Industrial and Intelligent Information* (ICII)**
in Cracow 2017

DMMS **1st, 2nd Int. Conference on *Decision Making in Manufacturing and Services (DMMS)***
in Zakopane 2017, Zakopane 2019

Logistics Analytics **Conference *Logistics Analytics***
in Minsk 2018

AIIA **Int. Conference of *Artificial Intelligence and Industrial Applications (AIIA)***
in Meknes 2020

LDIC **Int. Conference on Dynamics in Logistics (LDIC)**
in Bremen 2020

5 Publications

Monographs

[1] E. Pesch. *Retracts of Graphs.* Mathematical Systems in Economics 110, Athenäum Verlag, Frankfurt/M 1988.

[2] E. Pesch. *Learning in Automated Manufacturing.* Physica/Springer, Heidelberg 1994 (sold out).

[3] J. Błażewicz, K.H. Ecker, E. Pesch, G. Schmidt, and J. Weglarz. *Scheduling Computer and Manufacturing Processes.* Springer, Berlin 1996 (1. ed., 491 pages); 2001 (2. ed., 485 pages).

[4] J. Błażewicz, K.H. Ecker, E. Pesch, G. Schmidt, and J. Weglarz. *Handbook on Scheduling.* Springer, Berlin 2007, (647 pages).

[5] J. Błażewicz, K.H. Ecker, E. Pesch, G. Schmidt, M. Sterna, and J. Weglarz. *Handbook on Scheduling – From Theory to Practice.* Springer, Berlin 2019, (833 pages).

[6] F. Jaehn and E. Pesch. *Ablaufplanung.* Springer, Berlin 2014 (1. ed.); 2019 (2. ed., 219 pages).

Special Issues Edited

[7] E. Pesch and S. Voß. Applied Local Search. **OR Spektrum** 17(2,3,4) (1995), 55–225.

[8] P. Brucker, A. Drexl, R. Möhring, K. Neumann, and E. Pesch. Project Scheduling. **Mathematical Methods of Operations Research – ZOR** 52(3) (2000), 353–515.

[9] S. Martello and E. Pesch. Logistics: From Theory to Application, **European Journal of Operational Research** 162(1) (2005), 1–172.

[10] J. Błażewicz, E. Burke, K. Ecker, E. Pesch, and D. Trystram. Scheduling Computer and Manufacturing Systems, **Journal of Scheduling** 10(2) (2007), 85–139, Special Issue in honor of Ed Coffman's 70th birthday.

[11] M. Bender, J. Błażewicz, K. Ecker, E. Pesch, and D. Trystram. Emerging Scheduling Applications, **Journal of Scheduling** 11(5) (2008), 309–404.

[12] M. Bender, J. Błażewicz, E. Pesch, D. Trystram, and G. Zhang. New Challenges in Scheduling Theory, **Journal of Scheduling** 13(5) (2010), 451–559.

[13] E. Pesch and G. Woeginger. Operations Research in Health Care, **European Journal of Operational Research** 219(3) (2012), 489–637.

[14] M. Bender, J. Błażewicz, E. Pesch, D. Trystram, and G. Zhang. New Trends in Scheduling, **Journal of Scheduling** 16(1,4) (2013), 105–115, 347–384.

Special Issues Edited

[15] D. Briskorn, E. Pesch, and F. Werner. New Developments in Scheduling and Manufacturing, **International Journal of Production Research** 52(13) (2014), 3755–4102.

[16] J. Błażewicz, E. Pesch, D. Trystram, and G. Zhang. New Perspectives in Scheduling Theory, **Journal of Scheduling** 18(4) (2015), 333–368.

[17] J. Błażewicz, E. Pesch, C. Phillips, D. Trystram, and G. Zhang. New Challenges in Scheduling Theory, **RAIRO - Operations Research** 49(2) (2015), 335–434.

[18] J. Błażewicz, B. Moseley, E. Pesch, D. Trystram, and G. Zhang. New Challenges in Scheduling Theory, **Journal of Scheduling** 19(6) (2016), 617–767.

[19] O. Battaïa, A. Otto, E. Pesch, and F. Sgarbossa. Customized Assembly Systems, **Omega**–The International Journal of Management Science 78(1) (2018), 1–138.

[20] A. Allahverdi, E. Pesch, M. Pinedo, and F. Werner. Scheduling in Manufacturing Systems: New Trends and Perspectives, **International Journal of Production Research** 56(19) (2018), 6333–6567.

[21] J. Błażewicz, B. Moseley, E. Pesch, D. Trystram, and G. Zhang. New Challenges in Scheduling Theory, **Journal of Scheduling** 21(6) (2018), 581–654.

[22] J. Błażewicz, B. Moseley, E. Pesch, D. Trystram, and G. Zhang. New Perspectives in Scheduling Theory, **Journal of Scheduling** 24(5) (2021), 455–552.

[23] T.-M. Choi, A. Dolgui, D. Ivanov, and E. Pesch. OR and Analytics for Digital, Resilient, and Sustainable Manufacturing 4.0, **Annals of Operations Research** 310 (2022), 1–329.

[24] J. Błażewicz, B. Moseley, E. Pesch, D. Trystram, and G. Zhang. Mathematical Challenges in Scheduling Theory, **Journal of Scheduling** 26(6) (2023), 519–580.

[25] W. Chen, T.-M. Choi, A. Dolgui, D. Ivanov, and E. Pesch. Digital manufacturing and supply chain: creating benefits through operations research and artificial intelligence, **Annals of Operations Research** 344 (2025), 569–1099.

Papers in Journals

[26] E. Pesch and W. Poguntke. A characterization of absolute retracts of n-chromatic graphs, **Discrete Mathematics** 57 (1985), 99–104.

[27] E. Pesch. Minimal extensions of graphs to absolute retracts, **Journal of Graph Theory** 11 (1987), 585–598.

[28] E. Pesch. Products of absolute retracts, **Discrete Mathematics** 69 (1988), 179–188.

[29] H.-J. Bandelt and E. Pesch. A Radon theorem for Helly graphs, **Archiv Math.** 52 (1989), 95–98.

[30] H.-J. Bandelt and E. Pesch. Dismantling absolute retracts of reflexive graphs, **European Journal of Combinatorics** 10 (1989), 211–220.

[31] H.-J. Bandelt and E. Pesch. Efficient characterizations of n-chromatic absolute retracts, **Journal of Combinatorial Theory**, Ser. B 53 (1991), 5-31.

[32] N.L.J. Ulder, E.H.L. Aarts, H.-J. Bandelt, P.J.M. van Laarhoven, and E. Pesch. Genetic local search algorithms for the traveling salesman problem, **Lecture Notes in Computer Science** 496 (1991), 109–116.

[33] H. Friedrich, J. Kessler, E. Pesch, and B. Schildt. Batch scheduling on parallel units in acrylic-glass production, **ZOR - Zeitschrift Operations Research** (now: **MMOR - Mathematical Methods in Operations Research**) 35 (1991), 321–345.

[34] A. Bauer, W. Domschke, and E. Pesch. Competitive location on a network **European Journal of Operational Research** 66 (1993), 372–391.

[35] A. Kolen and E. Pesch. Genetic local search in combinatorial optimization, **Discrete Applied Mathematics** 48 (1994), 273–284.

[36] U. Dorndorf and E. Pesch. Fast clustering algorithms, **ORSA Journal on Computing** 6 (1994), 141–153.

[37] E. Pesch. Einlastungsstrategien in der Werkstattfertigung, **Logistik** (H. Isermann, Ed.), Publisher Moderne Industrie (1994), 281–295.

[38] A. Drexl, A. Kolen, and E. Pesch. Modellbasierte Inferenz in CHARME, **OR Spektrum** 16 (1994), 193–202.

[39] U. Dorndorf and E. Pesch. Evolution based learning in a job shop scheduling environment, **Computers & Operations Research** 22 (1995), 25–40.

[40] Y. Crama, A. Kolen, and E. Pesch. Local search in combinatorial optimization, **Lecture Notes in Computer Science** 931 (1995), 157–174.

[41] E. Pesch and S. Voß. Strategies with memories: local search in an application oriented environment, **OR Spektrum** 17 (1995), 55–66.

[42] A. Drexl, E. Pesch, and F. Salewski. Zur Bedeutung der Modellbildung für die Entwicklung wissensbasierter Systeme, **Zeitschrift für Betriebswirtschaft** 65 (1995), 1135–1153.

Papers in Journals

[43] T. Bartsch, E. Pesch, and F. Salewski. Auftragsterminierung für die taktisch-operative Personaleinsatzplanung in Wirtschaftsprüfungsgesellschaften, **Zeitschrift für Betriebswirtschaft** 66 (1996), 327–351.

[44] E. Pesch and U. Tetzlaff. Constraint propagation based scheduling of job shops, **INFORMS Journal on Computing** 8 (1996), 144–157.

[45] J. Błażewicz, W. Domschke, and E. Pesch. The job shop scheduling problem: Conventional and new solution techniques, **European Journal of Operational Research** 93 (1996), 1–33.

[46] E. Pesch and F. Glover. TSP ejection chains, **Discrete Applied Mathematics** 76 (1997), 165–181.

[47] J. Błażewicz, E. Pesch, and M. Sterna. A branch and bound algorithm for the job shop scheduling problem, **Beyond Manufacturing Resource Planning** (MRP II) (A. Drexl and A. Kimms, Eds.), Springer, (1998), 219–254.

[48] E. Pesch. Einlastungsstrategien in der Werkstattfertigung, **Logistik**, (H. Isermann, Ed.), 2nd ed., Publisher Moderne Industrie (1998), 353–367.

[49] U. Dorndorf, A. Drexl, E. Pesch and T. Phan Huy. Lokale Suchverfahren zur Projektplanung bei beschränkten Ressourcen **Künstliche Intelligenz** (German Journal of Artificial Intelligence) 4/98 (1998), 25–32

[50] P. Brucker, A. Drexl, R. Möhring, K. Neumann, and E. Pesch. Resource-constrained project scheduling: notation, classification, models, and methods, **European Journal of Operational Research** 112 (1999), 3–41.

[51] E. Pesch, F. Glover, T. Bartsch, F. Salewski, and I. Osman. Efficient facility layout planning in a maximally planar graph model, **International Journal of Production Research** 37 (1999), 263–283.

[52] J. Błażewicz, E. Pesch, and M. Sterna. A note on disjunctive graph representation, **Bulletin of the Polish Academy of Sciences** 47 (1999), 103–114.

[53] U. Tetzlaff and E. Pesch. Optimal workload allocation between a job shop and a flexible manufacturing system, **IEEE Transactions on Robotics and Automation** 15 (1999), 20–32.

[54] E. Pesch. Lower bounds in different problem classes of project schedules with resource constraints **Project Scheduling** - Recent Models, Algorithms and Applications, (J. Węglarz, Ed.), Kluwer Academic Publ., (1999), 53–76.

[55] U. Dorndorf, T. Phan Huy, and E. Pesch. A survey of interval capacity consistency tests for time- and resource-constrained scheduling, **Project Scheduling** - Recent Models, Algorithms and Applications, (J. Węglarz, Ed.), Kluwer Academic Publ., (1999), 213–238.

[56] J. Hiltrop and E. Pesch. Finanzinnovationen und Debt-Equity-Swaps, **Betriebswirtschaftliche Forschung und Praxis** 6/99 (1999), 671–682.

Papers in Journals

[57] T. Beier, E. Pesch, and R. Schmiedel. Ansatz für eine neue rechnergestützte Personaleinsatzplanung bei Feuerwehren, **Brandschutz Deutsche Feuerwehr-Zeitung** 53 (1999), 955–960.

[58] J. Błażewicz, E. Pesch, and M. Sterna. The disjunctive graph machine representation of the job shop scheduling problem, **European Journal of Operational Research** 127 (2000), 317–331.

[59] U. Dorndorf, E. Pesch, and T. Phan Huy. Constraint propagation techniques for disjunctive scheduling problems, **Artificial Intelligence** 122 (2000), 189–240.

[60] U. Dorndorf, E. Pesch, and T. Phan Huy. A branch and bound algorithm for the resource-constrained project scheduling problem, **ZOR -Mathematical Methods in Operations Research** 52 (2000), 413–439.

[61] J. Hiltrop and E. Pesch. Einige grundlegende Fragen zu Finanzinnovationen - Finanzinnovationen im Rahmen der Innovationstheorie, **WISU–Das Wirtschaftsstudium** 11/00 (2000), 1480–1483.

[62] U. Dorndorf, E. Pesch, and T. Phan Huy. A time-oriented branch-and-bound algorithm for resource constrained project scheduling with generalised precedence constraints, **Management Science**, 46:1365–1384, 2000.

[63] U. Dorndorf, E. Pesch, and T. Phan Huy. Solving the open shop scheduling problem, **Journal of Scheduling** 4 (2001), 157–174.

[64] U. Dorndorf, E. Pesch, and T. Phan Huy. Constraint propagation and problem decomposition: A preprocessing procedure for the job shop problem, **Annals of Operations Research** 115 (2002), 125–145.

[65] U. Dorndorf, E. Pesch, and T. Phan Huy. Machine learning by schedule decomposition – Prospects for an integration of AI and OR techniques for job shop scheduling, **Advances in Evolutionary Computation**, (A. Ghosh, S. Tsutsui, Eds.), Springer, (2003), 773–798.

[66] U. Dorndorf and E. Pesch. Data Warehouses, **Handbook on Data Management in Information Systems**, (J. Błażewicz, W. Kubiak, T. Morzy, M. Rusinkiewicz, Eds.) Springer, (2003), 387–430.

[67] J. Błażewicz, E. Pesch, M. Sterna, and F. Werner. Open shop scheduling problems with late work criteria, **Discrete Applied Mathematics** 134 (2004), 1–24.

[68] J. Błażewicz, E. Pesch, M. Sterna, and F. Werner. Flow shop scheduling with late work criterion – choosing the best solution strategy, **Lecture Notes in Computer Science** 3285 (2004), 68–75.

[69] J. Błażewicz, E. Pesch, and M. Sterna. A novel representation of graph structures in web mining and data analysis, **Omega** – The Int. Journal of Management Science 33 (2005), 65-71.

[70] S. Martello and E. Pesch. Logistics: From theory to application, **European Journal of Operational Research** 162 (2005), 1–3.

Papers in Journals

[71] T. Kis and E. Pesch. A review of exact solution methods for the non-preemptive multiprocessor flow shop problem, *European Journal of Operational Research* 164 (2005), 592–608.

[72] J. Błażewicz, E. Pesch, M. Sterna, and F. Werner. The two-machine flow-shop problem with weighted late work criterion and common due date, *European Journal of Operational Research* 165 (2005), 408–415.

[73] J. Błażewicz, E. Pesch, M. Sterna, and F. Werner. Metaheuristics for late work minimization in two machine flow shops with common due date, *Lecture Notes in Artificial Intelligence* 3698 (2005), 222–234.

[74] U. Tetzlaff and E. Pesch. Scheduling personnel for press machines in the automotive industry, *Pacific Journal on Optimization* 1 (2005), 545–564.

[75] J. Błażewicz, E. Pesch, M. Sterna, and F. Werner. A comparison of solution procedures for the flow shop scheduling with late work criterion, *Computers & Industrial Engineering* 49 (2005), 611–624.

[76] S. Chubanov, M.Y. Kovalyov, and E. Pesch. An FPTAS for a single-item capacitated economic lot-sizing problem with monotone cost structure, *Mathematical Programming* 106 (2006), 453–466.

[77] J. Błażewicz, E. Pesch, M. Sterna, and F. Werner. A note on the two machine job shop with the weighted late work criterion, *Journal of Scheduling* 10 (2007), 87–95.

[78] U. Dorndorf, A. Drexl, Y. Nikulin, and E. Pesch. Flight gate scheduling: state-of-the-art and recent developments, *Omega* – *The Int. Journal of Management Science* 35 (2007), 326–334.

[79] U. Dorndorf, F. Jaehn, C. Lin, H. Ma, and E. Pesch. Disruption management in flight gate scheduling, *Statistica Neerlandica* 61 (2007), 92–114.

[80] J. Błażewicz, E. Pesch, M. Sterna, and F. Werner. Metaheuristic approaches for two machine flow-shop problem with weighted late work criterion and common due date, *Computers & Operations Research* 35 (2008), 574–599.

[81] S. Chubanov, M.Y. Kovalyov, and E. Pesch. A single-item economic lot-sizing problem with a non-uniform resource: Approximation, *European Journal of Operational Research* 189 (2008), 877–889.

[82] U. Dorndorf, F. Jaehn, and E. Pesch. Modelling robust flight gate scheduling as a clique partitioning problem, *Transportation Science* 42 (2008), 292–301.

[83] E. Pesch and T. Phan Huy. Lernen, Constraint Propagation und Sudokus, *WISU–Das Wirtschaftsstudium* 8-9/08 (2008), 1186–1193.

[84] L. Asbach, U. Dorndorf, and E. Pesch. Analysis, modelling and solution of the concrete delivery problem, *European Journal of Operational Research* 193 (2009), 820–835.

Papers in Journals

[85] S. Chubanov and E. Pesch. Recursive functions on the plane and FPTASs for production planning and scheduling problems with two facilities, **Mathematical Methods of Operations Research (MMOR)** 70 (2009), 313–335.

[86] E. Pesch and M. Sterna. Late work minimization in flow shops by a genetic algorithm, **Computers & Industrial Engineering** 57 (2009), 1202–1209.

[87] M.Y. Kovalyov and E. Pesch. A generic approach to proving NP-hardness of partition type problems, **Discrete Applied Mathematics** 158 (2010), 1908–1912.

[88] N. Boysen, F. Jaehn, and E. Pesch. Scheduling freight trains in rail-rail transshipment yards, **Transportation Science** 45 (2011), 199–211.

[89] J. Błażewicz, W. Frohmberg, M. Kierzynka, P. Wojciechowski, and E. Pesch. An efficient implementation of DNA alignment algorithms with backtracking routine on multiple GPUs, **BMC Bioinformatics** 12:181 (2011), 1–17.

[90] D. Kress and E. Pesch. Sequential competitive location on networks, **European Journal of Operational Research** 217 (2012), 483–499.

[91] E. Pesch and G. Woeginger. Operations Research in Health Care, **European Journal of Operational Research** 219 (2012), 489–490.

[92] N. Boysen, M. Fliedner, F. Jaehn, and E. Pesch. Shunting yard operations: Theoretical aspects and applications, **European Journal of Operational Research** 220 (2012), 1–14.

[93] U. Dorndorf, F. Jaehn, and E. Pesch. Flight gate scheduling with respect to a reference schedule, **Annals of Operations Research** 194 (2012), 177–187.

[94] N. Boysen, F. Jaehn, and E. Pesch. New bounds and algorithms for the Transshipment Yard Scheduling Problem, **Journal of Scheduling** 15 (2012), 499–511.

[95] D. Kress and E. Pesch. (r|p-centroid problems on networks with vertex and edge demand, **Computers & Operations Research** 39 (2012), 2954–2967.

[96] S. Chubanov and E. Pesch. An FPTAS for the single-item capacitated economic lot-sizing problem with supply and demand, **Operations Research Letters** 40 (2012), 446–449.

[97] D. Kress and E. Pesch. Voting location under proportional choice: 1-suboptimal points on networks, **Decision Making in Manufacturing and Services** 6 (2012), 53–64.

[98] A. Janiak, W. Janiak, M.Y. Kovalyov, E. Kozan, and E. Pesch. Parallel machine scheduling and common due window assignment with job independent earliness and tardiness costs, **Information Sciences** 224 (2013), 109–117.

[99] D. Briskorn, F. Jaehn, and E. Pesch. Exact algorithms for inventory constrained scheduling on a single machine, **Journal of Scheduling** 16 (2013), 105–115.

Papers in Journals

[100] N. Boysen, M. Fliedner, F. Jaehn, and E. Pesch. A survey on container processing in railway yards, **Transportation Science** 47 (2013), 312–329.

[101] M. Barketau, E. Pesch, and H. Kopfer. A Lagrangian lower bound for the container transshipment problem at a railway hub for a fast branch-und-bound algorithm, **Journal of the Operational Research Society (JORS)** 64 (2013), 1614–1621.

[102] F. Jaehn and E. Pesch. New bounds and constraint propagation techniques for the clique partitioning problem, **Discrete Applied Mathematics** 161 (2013), 2025–2037.

[103] J. Nossack and E. Pesch. Truck scheduling problem in intermodal container transportation, **European Journal of Operational Research** 230 (2013), 666–680.

[104] J. Błażewicz, E.K. Burke, M. Małaczynski, M. Szachniuk, and E. Pesch. MLP accompanied beam search for the resonance assignment problem, **Journal of Heuristics** 19 (2013), 443–464.

[105] D. Briskorn and E. Pesch. Variable very large neighborhood algorithms for truck sequencing at transshipment terminals, **International Journal of Production Research** 51 (2013), 7140–7155.

[106] J. Nossack and E. Pesch. A branch-and-bound algorithm for the acyclic partitioning problem, **Computers & Operations Research** 41 (2014), 174–184.

[107] A. Dolgui, S. Kovalev, M.Y. Kovalyov, J. Nossack, and E. Pesch. Minimizing setup costs in a transfer line design problem with sequential operation processing, **International Journal of Production Economics** 151 (2014), 186–194.

[108] M.Y. Kovalyov and E. Pesch. A game mechanism for single machine sequencing with zero risk, **Omega** – The Int. Journal of Management Science 44 (2014), 104–110.

[109] M.Y. Kovalyov and E. Pesch. An $O(n \log n)$ algorithm for a single-item capacitated lot-sizing problem with linear costs, **International Journal of Production Research** 52 (2014), 3758–3761.

[110] F. Jaehn, S. Kovalev, M.Y. Kovalyov, and E. Pesch. Multi-product batching and scheduling on a single facility with buffered rework: Application in a car paint shop, **Naval Research Logistics** 61 (2014), 458–471.

[111] M. Gendreau, J. Nossack, and E. Pesch. Mathematical formulations for a 1-full-truckload pickup-and-delivery problem, **European Journal of Operational Research** 242 (2015), 1008–1016.

[112] J. Błażewicz, E. Pesch, D. Trystram, and G. Zhang. New perspectives in scheduling theory, **Journal of Scheduling** 18 (2015), 333–334.

[113] D. Kress and S. Meiswinkel, and E. Pesch. The partitioning Min-Max weighted matching problem, **European Journal of Operational Research** 247 (2015), 745–754.

Papers in Journals

[114] M. Barketau, E. Pesch, and Y. Shafransky. Minimizing maximum weight of subsets of a maximum matching in a bipartite graph, **Discrete Applied Mathematics** 196 (2015), 4–19.

[115] A. Dolgui, S. Kovalev, and E. Pesch. Approximate solution of a profit maximization constrained virtual business planning problem, **Omega** - The Int. Journal of Management Science 57 (2015), 212–216.

[116] E. Morsy and E. Pesch. Approximation algorithms for inventory constrained scheduling on a single machine, **Journal of Scheduling** 18 (2015), 645–653.

[117] J. Błażewicz, E. Pesch C. Phillips, D. Trystram, and G. Zhang. New challenges in scheduling theory, **RAIRO-Operations Research** 49 (2015), 335–337.

[118] M. Barketau, E. Pesch, and Y. Shafransky. Scheduling dedicated jobs with variative processing times, **Journal of Combinatorial Optimization** 31 (2016), 774–785.

[119] D. Kress and E. Pesch. Competitive location and pricing on networks with random utilities, **Networks and Spatial Economics** 16 (2016), 837-–863.

[120] M. Barketau and E. Pesch. An approximation algorithm for a special case of the asymmetric traveling salesman problem, **International Journal of Production Research** 54 (2016), 4205–4212.

[121] G. Kendall, J. Błażewicz, R. Bai, P. de Causemaecker, M. Gendreau, R. John, J. Li, B. McCollum, E. Pesch, R. Qu, N. Sabar, G. Vanden Berghe, and A. Yee. Good laboratory practice for optimization research, **Journal of the Operational Research Society (JORS)** 67 (2016), 676—689.

[122] J. Błażewicz, M. Cichenski, F. Jaehn, G. Pawlak, E. Pesch, and G. Singh. An integrated model for the transshipment yard scheduling problem, **Journal of Scheduling** 20 (2017), 57-–65.

[123] X. Li, A. Otto, and E. Pesch. Two-way bounded dynamic programming approach for operations planning in transshipment yards, **Transportation Science** 51 (2017), 325–342.

[124] U. Dorndorf, F. Jaehn, and E. Pesch. Flight gate assignment and recovery strategies with stochastic arrival and departure times, **OR Spectrum** 39 (2017), 65-–93.

[125] B. Golden, J, Nossack, E. Pesch, and R. Zhang. The windy rural postman problem with a time-dependent zigzag option, **European Journal of Operational Research** 258 (2017), 1131–1142.

[126] N. Boysen, D. Kress, and E. Pesch. Which items should be stored together? A basic partition problem to assign storage space in group-based storage systems, **IISE Transactions** 49 (2017), 13–30.

[127] A. Otto and E. Pesch. Operation of shunting yards: Train-to-yard assignment problem, **Journal of Business Economics (ZfB)** 87 (2017), 465–486.

Papers in Journals

[128] K.A. Kuzmicz and E. Pesch. Prerequisites of empty container supply chains modeling, **Engineering Management in Production and Services** 9 (2017), 28–36.

[129] B. Golden, J, Nossack, E. Pesch, and R. Zhang. Routing problems with time dependencies or how different are trash collection or newspaper delivery from street sweeping or winter gritting? **Procedia Engineering** 182 (2017), 235–240.

[130] D. Kress, S. Meiswinkel, and E. Pesch. Incentive compatible mechanisms for machine scheduling problems with job agents, **Discrete Applied Mathematics** 242 (2018), 89–101.

[131] M.Y. Kovalyov, E. Pesch, and A. Ryzhikov. A note on scheduling container storage operations of two non-passing stacking cranes, **Networks** 71 (2018), 271—280.

[132] A. Bandalouski, M.Y. Kovalyov, E. Pesch, and S. Tarim. An overview of revenue management and dynamic pricing models in hotel business, **RAIRO - Operations Research** 52 (2018), 119–141.

[133] O. Battaia, A. Otto, E. Pesch, and F. Sgarbossa. Future trends in management and operation of assembly systems: From customized assembly systems to cyber-physical systems, **Omega** - The Int. Journal of Management Science 78 (2018), 1–4.

[134] D. Kress, S. Meiswinkel, J. Nossack, and E. Pesch. A mechanism design approach to planning problems in intermodal transport logistics of large city sea ports and megahubs, **European cities in dynamic competition**: theory and case studies on urban governance, strategy, cooperation and competitiveness, (H. Albach, H. Meffert, A. Pinkwart, R. Reichwald, Ł. Świątczak, Eds.), Springer, (2018), 215–229.

[135] A. Otto, N. Agatz, J. Campbell, B. Golden, and E. Pesch. Optimization approaches for civil applications of unmanned aerial vehicles (UAVs), or drones: A survey. **Networks**, 72 (2018), 411–458.

[136] D. Kress, S. Meiswinkel, and E. Pesch. Mechanism design for machine scheduling problems, **OR Spectrum** 40 (2018), 583—611.

[137] J. Jozefowska, G. Pawlak, E. Pesch, M. Morze, and D. Kowalski. Fast truck-packing of 3D boxes, **Engineering Management in Production and Services** 10 (2018), 29–40.

[138] A. Allahverdi, E. Pesch, M. Pinedo, and F. Werner. Scheduling in manufacturing systems: New trends and perspectives, **International Journal of Production Research** 56 (2018), 6333–6335.

[139] J. Błażewicz, B. Moseley, E. Pesch, D. Trystram, and G. Zhang. New challenges in scheduling theory, **Journal of Scheduling** 21 (2018), 581–582.

Papers in Journals

[140] M. Barketau, D. Kress, and E. Pesch. Single-machine batch scheduling to minimize the total setup cost in the presence of deadlines, **Journal of Scheduling** 21 (2018), 595–606.

[141] J. Nossack, D. Briskorn, and E. Pesch. Container dispatching and conflict-free yard crane routing in an automated container terminal, **Transportation Science**, 52 (2018), 1059–1076.

[142] J. Błażewicz, X. Chen, R.C.T. Lee, B.M.T. Lin, F.-C. Lin, E. Pesch, M. Sterna, and Z. Wang. Clarification of lower bounds of two-machine flow-shop scheduling to minimize total late work, **Engineering Optimization** 51, (2019), 1279–1280.

[143] M.Y. Kovalyov, D. Kress, S. Meiswinkel, and E. Pesch. A parallel machine schedule updating game with compensations and zero risk, **Computers & Operations Research** 103 (2019), 148–157.

[144] K.A. Kuzmicz and E. Pesch. Approaches to empty container repositioning problems in the context of Eurasian intermodal transportation, **Omega** - *The Int. Journal of Management Science* 85 (2019), 194–213.

[145] X. Chen, Z. Wang, E. Pesch, M. Sterna and J. Błażewicz. Two-machine flow-shop scheduling to minimize total late work: Revisited, **Engineering Optimization** 51 (2019), 1268–1278.

[146] X. Li, A. Otto, and E. Pesch. Solving the single crane scheduling problem at rail transshipment yards, **Discrete Applied Mathematics** 264 (2019), 134-–147.

[147] A. Otto and E. Pesch. The train-to-yard assignment problem, **OR Spectrum** 41 (2019), 549–580.

[148] D. Kress, S. Meiswinkel, and E. Pesch. Straddle carrier routing at seaport container terminals in the presence of short term quay crane buffer areas, **European Journal of Operational Research** 279 (2019), 732–750.

[149] E. Pesch and K.A. Kuzmicz. Non-approximability of the single crane container transshipment problem, **International Journal of Production Research** 58 (2020), 3965–3975.

[150] M.A. Masmoudi, M. Hosny, E. Demir, and E. Pesch. Hybrid adaptive large neighbourhood search algorithm for the mixed fleet heterogeneous dial-a-ride problem, **Journal of Heuristics** 26 (2020), 83–118.

[151] I. Fridman, E. Pesch, and Y. Shafransky. Minimizing maximum cost for a single machine under uncertainty of processing times, **European Journal of Operational Research**, 286 (2020), 444–457.

[152] I. Fridman, M.Y. Kovalyov, E. Pesch, and A. Ryzhikov. Fixed interval scheduling with third-party machines, **Networks**, 77 (2021), 361–371, DOI: 10.1002/net.21973.

[153] M.Y. Kovalyov, E. Pesch, and A. Quilliot. Provision-after-wait with preferences ordered by difference: Tighter complexity and better FPTAS, **European Journal of Operational Research**, 289 (2021), 1008–1012.

Papers in Journals

[154] J. Błażewicz, B. Moseley, E. Pesch, D. Trystram, and G. Zhang. New perspectives in scheduling theory, **Journal of Scheduling** 24 (2021), 455–457.

[155] A.M. Bandalouski, N.G. Egorova, M.Y. Kovalyov, E. Pesch, and S.A. Tarim. Dynamic pricing with demand disaggregation for hotel revenue management, **Journal of Heuristics**, 27 (2021), 869–885, DOI: doi.org/10.1007/s10732-021-09480-2.

[156] K. Wang, E. Pesch, D. Kress, I. Fridman, and N. Boysen. The Piggyback transportation problem: Transporting drones launched from a flying warehouse, **European Journal of Operational Research**, 296 (2022), 504–519.

[157] S. Tekil-Ergün, E. Pesch, and K. Kuzmicz. Solving a hybrid mixed fleet heterogeneous dial-a-ride problem in delay-sensitive container transportation, **International Journal of Production Research**, 60 (2022), 297–323 DOI: doi.org/10.1080/00207543.2021.2000658.

[158] T.-M. Choi, A. Dolgui, D. Ivanov, and E. Pesch. OR and analytics for digital, resilient, and sustainable manufacturing 4.0, **Annals of Operations Research** 310 (2022), 1–6, DOI: doi.org/10.1007/s10479-022-04536-3.

[159] D. Müller, M.G. Müller, D. Kress, and E. Pesch. An algorithm selection approach for the flexible job shop scheduling problem: choosing constraint programming solvers through machine learning, **European Journal of Operational Research**, 302 (2022), 874–891.

[160] J.-E. Justkowiak and E. Pesch. Stronger mixed-integer programming-formulations for order-and rack-sequencing in robotic mobile fulfillment systems, **European Journal of Operational Research**, 305 (2023), 1063–1078.

[161] J.-E. Justkowiak, S. Kovalev, M. Y. Kovalyov, and E. Pesch. Single machine scheduling with assignable due dates to minimize maximum and total late work, **European Journal of Operational Research**, 308 (2023), 76–83.

[162] M. Y. Kovalyov, L. N. Lukashevich, and E. Pesch. Cost minimizing of container inspection and repair planning in multiple facilities, **OR Spectrum**, 45 (2023), 181–204.

[163] J. Błażewicz, B. Moseley, E. Pesch, D. Trystram, and G. Zhang. Mathematical challenges in scheduling theory, **Journal of Scheduling**, 26 (2023), 519–521.

[164] J.-E. Justkowiak and E. Pesch. A column generation driven heuristic for order-and rack-sequencing in robotic mobile fulfillment systems, **Omega**, (in press 2023), DOI: doi.org/10.1016/j.omega.2023.102897.

[165] A. Hosseini, A. Otto, and E. Pesch. Scheduling in manufacturing with transportation: Classification and solution techniques, **European Journal of Operational Research**, 315 (2024), 821–843.

Papers in Journals

[166] N. Guschinsky, M. Y. Kovalyov, E. Pesch, and B. Rozin. Cost minimizing decisions on equipment and charging schedule for electric buses in a single depot, **Transportation Research Part E**, 180, (in press 2024), DOI:doi.org/10.1016/j.tre.2023.103337.

[167] J.-E. Justkowiak, M. Y. Kovalyov, and E. Pesch. A dynamic programming algorithm for order picking in robotic mobile fulfillment systems, **Networks**, 84 (2024), 481–490.

[168] A. Otto, B. Golden, C. Lorenz, Y. Luo, E. Pesch, and L. Rocha. On delivery policies for a truck-and-drone tandem in disaster relief, **IISE Transactions**, (in press 2024).

[169] M. Y. Kovalyov, K. A. Kuzmicz, L. N. Lukashevich, and E. Pesch. Planning container inspection and repair: A case study, **Computers & Operations Research**, 164, (in press 2025), DOI: doi.org/10.1016/j.cor.2024.106555.

[170] W. Chen, T.-M. Choi, A. Dolgui, D. Ivanov, and E. Pesch. Digital manufacturing and supply chain: creating benefits through operations research and artificial intelligence, **Annals of Operations Research** 344 (2025), 569–574.

Papers in Proceedings

[171] W. Domschke, H. Friedrich, E. Pesch, B. Schildt. Reihenfolgeproblem bei der Acrylglasherstellung, *Operations Research Proceedings 1989*, Springer, Berlin (1990), 214–221.

[172] E. Pesch. Genetic algorithms as metaheuristics for solving combinatorial optimization problems, *Proceedings ASCIS Workshop on Global Optimization* (1991), 46–55.

[173] U. Dorndorf, E. Pesch. Combining genetic and local search for solving the job shop scheduling problem, *Symposium on Applied Mathematical Programming and Modeling APMOD93*, Akaprint, Budapest (1993), 142–149.

[174] U. Dorndorf, E. Pesch. Genetic algorithms for job shop scheduling, *Operations Research Proceedings 1992*, Springer, Berlin (1993), 243–250.

[175] U. Dorndorf, E. Pesch. Variable depth search and embedded schedule neighbourhoods for job shop scheduling, *Proceedings of the 4th Int. Workshop on Project Management and Scheduling* (1994), 232–235.

[176] E. Pesch. Knowledge acquisition through schedule decomposition, *Operations Research Proceedings 1993*, Physica, Heidelberg (1994), 389–392.

[177] J. Błażewicz, E. Pesch, M. Sterna. Application of a modified disjunctive graph for the job shop scheduling problem, *Proceedings of the 4th Int. Symposium on Methods and Models in Automation and Robotics* (1997), 935–940.

[178] J. Błażewicz, E. Pesch, M. Sterna. Job shop scheduling by disjunctive graph analysis, *Proceedings of the 5th Int. Symposium on Methods and Models in Automation and Robotics* (1998), 1029–1034.

[179] J. Błażewicz, E. Pesch, M. Sterna. The machine representation of the disjunctive graph, *Proceedings of the 6th Int. Workshop on Project Management and Scheduling* (1998), 177–180.

[180] J. Błażewicz, E. Pesch, M. Sterna. Nowa reprezentacja maszynowa grafu dysjunkcyjnego dla problemu szeregowania w ogolnym systemie obslugi, *Proceedings of the XI National Conference on Automation of Discrete Industrial Processes* (1998), 45–54.

[181] U. Dorndorf, E. Pesch, T. Phan Huy. Recent developments in scheduling, *Operations Research Proceedings 1998*, Springer, Berlin (1999), 353–365.

[182] U. Dorndorf, E. Pesch, T. Phan Huy. Branch and propagate in open shop scheduling, *Proceedings of the 2nd Int. Workshop CP-AI-OR'00* (2000), 29–32.

[183] J. Błażewicz, E. Pesch, M. Sterna, F. Werner. Total late work criteria for shop scheduling problems, *Operations Research Proceedings 1999*, Springer, Berlin (2000), 354–359.

[184] J. Błażewicz, E. Pesch, M. Sterna, F. Werner. Complexity of scheduling problems with late work criteria, *Proceedings of the 7th Int. Workshop on Project Management and Scheduling* (2000), 70–72.

Papers in Proc. cont.

[185] U. Dorndorf, E. Pesch, T. Phan Huy. Constraint propagation in open shop scheduling, *Proceedings of the 7th Int. Workshop on Project Management and Scheduling* (2000), 111–113.

[186] U. Dorndorf, E. Pesch, T. Phan Huy. Branch and propagate in open shop scheduling, *Proceedings of the World Multiconference on Systemics, Cybernetics and Informatics* Vol XI (2000), 219–221.

[187] J. Błażewicz, E. Pesch, M. Sterna. Extension of the disjunctive graph model for the job shop scheduling problem, *Operations Research Proceedings 2000*, Springer, Berlin, (2001), 359–365.

[188] J. Błażewicz, E. Pesch, M. Sterna, F. Werner. The weighted flow shop problem with a common due date and late work criterion, *Proceedings of the 8th Int. Workshop on Project Management and Scheduling* (2002), 69–72.

[189] H. Behrendt, E. Pesch, R. Schmiedel. Abschließender Kommentar zu *Bedarfsgerechte Fahrzeugvorhaltung in der Diskussion*, *Notfall & Rettungsmedizin* 5 (2002), 629.

[190] J. Błażewicz, E. Pesch, M. Sterna, F. Werner. Dynamic programming for 2-machine shop problems with weighted late work criterion, *Proceedings of the 6th Workshop on Models and Algorithms for Planning and Scheduling Problems* (2003), 36–37.

[191] J. Błażewicz, E. Pesch, M. Sterna, F. Werner. The binary NP-hardness of the two-machine job shop problem with the weighted late work criterion, *Proceedings of the INOC2003 - Int. Network Optimization Conference* (2003), 101–106.

[192] S. Chubanov, M.Y. Kovalyov, E. Pesch. Complexity and approximability of a single-item economic lot-sizing problem with a non-uniform resource, *Proceedings of the 9th Int. Workshop on Project Management and Scheduling* (2004), 375–379.

[193] J. Błażewicz, E. Pesch, M. Sterna. A branch and bound method for one-shift production optimization in a flexible manufacturing system, *Proceedings of the 9th Int. Workshop on Project Management and Scheduling* (2004), 159–262.

[194] S. Chubanov, M.Y. Kovalyov, E. Pesch. A fully polynomial time approximation scheme for the capacitated economic lot-sizing problem with a monotone cost structure, *Proceedings of the 7th Workshop on Models and Algorithms for Planning and Scheduling Problems* (2005), 80–83.

[195] J. Błażewicz, E. Pesch, M. Sterna, F. Werner. Metaheuristic approaches for the two-machine flow shop with weighted late work criterion, *Proceedings of the 7th Workshop on Models and Algorithms for Planning and Scheduling Problems* (2005), 262–265.

[196] U. Dorndorf, F. Jaehn, E. Pesch. Modeling robust flight gate scheduling as a clique partitioning problem, *Proceedings of the 10th Int. Workshop on Project Management and Scheduling* (2006), 175–179.

Papers in Proc. cont.

[197] U. Dorndorf, E. Pesch. Gate scheduling at airports, *Proceedings of the Int. Symposium on Scheduling 2006* (H. Fujimoto and T. Ibaraki, Eds.) (2006), 1-5.

[198] U. Dorndorf, E. Pesch. Robust flight gate scheduling, *Proceedings of the 7th Metaheuristics Int. Conference (MIC)*, Montreal 2007.

[199] U. Dorndorf, E. Pesch. Efficient aircraft-gate assignments, *Proceedings of the 8th Workshop on Models and Algorithms for Planning and Scheduling Problems*, Istanbul (2007).

[200] E. Pesch. Genetic algorithm for late work minimization in a flow shop system, *Proceedings of the 3rd Multidisciplinary Int. Scheduling Conference: Theory and Applications (MISTA)* (2007), 455–462.

[201] U. Dorndorf, F. Jaehn, E. Pesch. Flight gate allocation: Models, methods and robust solutions, *Proceedings of the 7th Int. Conference on the Practice and Theory of Automated Timetabling (PATAT)*, (2008).

[202] E. Pesch, M. Sterna, J. Juraszek. Revenue maximization on parallel machines, *Operations Research Proceedings 2008*, Springer, Berlin (2009), 153–158.

[203] F. Jaehn, E. Pesch. A new branch and bound algorithm for the clique partitioning problem, *Operations Research Proceedings 2008*, Springer, Berlin (2009), 457–462.

[204] M.Y. Kovalyov, E. Pesch. A generic approach to proving NP-hardness of partition type scheduling and other combinatorial problems, *Proceedings of the 9th Workshop on Models and Algorithms for Planning and Scheduling Problems* (2009).

[205] S. Chubanov, E. Pesch. An approximation scheme for concave network flow problems, *Proceedings of the 9th Workshop on Models and Algorithms for Planning and Scheduling Problems* (2009).

[206] E. Pesch, M. Sterna, J. Juraszek. Simulated Annealing method for maximizing revenue on parallel machines, *Proceedings of the 4th Multidisciplinary Int. Scheduling Conference: Theory and Applications (MISTA)* (2009), 699–702.

[207] J. Nossack, E. Pesch. Benders decomposition for the Full-Truckload Pickup-and-Delivery Vehicle Routing Problem, *Proceedings of the 8th Int. Conference CP-AI-OR'11* (2011), 28–30.

[208] A. Dolgui, S. Kovalev, M.Y. Kovalyov, J. Nossack, E. Pesch. A transfer line design problem with setup times and costs, *Proceedings of the IFAC Int. Conference* 46(9), (2013), 778–783.

[209] J. Nossack, E. Pesch. Planning and scheduling in intermodal transport, *IFAC Proceedings* 46(9), (2013), 27–32.

[210] J. Nossack, E. Pesch. Mathematical formulations for the acyclic partitioning problem, *Operations Research Proceedings 2013*, Springer, Berlin (2014), 333–339.

Papers in Proc. cont.

[211] M. Barketau, E. Pesch, Y.M. Shafransky. About optimization of work of railway terminals, *Tanaev Readings: Proceedings of the Int. Scientific Conference*, UIIP NAS of Belarus (2014), 4–8.

[212] M. Barketau, E. Pesch, Y.M. Shafransky. Several problems arising in the process of container transhipment in the railway yard, *Int.Conference Problems of Forecasting and State Regulation of the Social-Economic Development*, Minsk, Belarus, (2014).

[213] J. Swan, S. Adriaensen, M. Bishr, E.K. Burke, J.A. Clark, J. Durillo, K. Hammond, E. Hart, C.G. Johnson, Z.A. Kocsis, B. Kovitz, K. Krawiec, S. Martin, J.J. Merelo, L.L. Minku, E. Özcan, G.L. Pappa, E. Pesch, P. Garcıa-Sanchez, A. Schaerf, K. Sim, J.E. Smith, T. Stützle, S. Voß, S. Wagner, X. Yao. A research agenda for metaheuristic standardization, *Proceedings of the XI Metaheuristics Int. Conference (MIC)*, Agadir, Morocco, (2015)

[214] T. Bottenberg, D. Kress, S. Meiswinkel, E. Pesch. Workload balancing at intermodal container terminals and sea ports, *Proceedings of the XI Metaheuristics Int. Conference (MIC)*, Agadir; Morocco, (2015).

[215] D. Kress, S. Meiswinkel, E. Pesch. An integrated matching and partitioning problem with applications in intermodal transport, *Proceedings of the IEEE Symposium Series on Computational Intelligence*, Cape Town, (2015), 1758–1765.

[216] A. Otto, X. Li, E. Pesch. Container transshipment at rail yards: A two-way bounded dynamic programming approach, *Proceedings of the 11th Int. Conference on Practice and Theory of Automated Timetabling (PATAT)* (2016), 537–540.

[217] M.Y. Kovalyov, D. Kress, S. Meiswinkel, E. Pesch. Decentralized sequencing of jobs on a single machine, *Proceedings of the IEEE Symposium Series on Computational Intelligence* (2016), DOI: 10.1109/SSCI.2016.7850053.

[218] E. Pesch, J. Nossack, D. Briskorn. Container dispatching and conflict-free yard crane routing in an automated container terminal, *Proceedings of the 13th Workshop on Models and Algorithms for Planning and Scheduling Problems (MAPSP)*, (2017).

[219] D. Kress, E. Pesch, N. Boysen. Models and algorithms for a partition problem arising in warehousing, *Proceedings of the 13th Workshop on Models and Algorithms for Planning and Scheduling Problems (MAPSP)*, (2017).

[220] A. Otto, X. Li, E. Pesch. Scheduling products at paced assembly lines with a multiple-piece flow, *Proceedings of the 12th Int. Conference on Practice and Theory of Automated Timetabling (PATAT)* (2018), 409–412.

[221] M. Barketau, D. Kress, E. Pesch, D. Müller. Complexity and approximation results for setup-minimal batch scheduling with deadlines on a single processor, *Operations Research Proceedings 2018*, Springer, Berlin (2019), 475–480.

Papers in Proc. cont.

[222] K.A. Kuzmicz, E. Pesch. Container depot location problem in the frame of the Polish part of the New Silk Road, *MATEC Web of Conferences* 312, (2020), DOI: 10.1051/matecconf/202031202004.

[223] M.A. Masmoudi, K.A. Kuzmicz, E. Pesch, E. Demir, M. Hosny. Container truck transportation routing as a mixed fleet heterogeneous dial-a-ride problem, *MATEC Web of Conferences* 312, (2020), DOI: 10.1051/matecconf/202031202005.

[224] S. Tekil-Ergün, E. Pesch, K.A. Kuzmicz. Sustainable container distribution by alternatively fueled vehicles under customer and technical constraints, *IFAC PapersOnLine* 55-10, (2022), 836–841.