Prof. Dr. Erwin Pesch

Curriculum Vitae

1 Personal Data

Affiliation University of Siegen

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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- Professor of Production Management

10/2001 Department of Economics, University of Bonn

04/1989- Assistant Professor

11/1994 School of Business and Economics, Maastricht University, NL

10/1985- Research Assistant

04/1989 Department of Law and Economics, Technical University Darmstadt

06/1984 Employee Commerzbank AG

08/1985 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- Study of Mathematics and Computer Science

11/1983 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

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 (with D. Kreß) 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, Handelsblatt 2005, 2012, 2014, Wirtschaftswoche 2019, 2020, 2022)
 - 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 4^{th} 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 16^{th} 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 48^{th} 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 since 2008
- O 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
- O Decision Making in Manufacturing and Services since 2006
- Operations Research Letters since 2008
- O Int. Journal of Production Research since 2008
- O Journal of Engineering, Project, and Production Management since 2011
- O Information Systems and e-Business Management since 2011
- Foundations of Computing and Decision Sciences since 2013
- Engineering Management in Production and Services since 2017
- O 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

Advisory Editor of

- OR Spectrum 1992-2006
- O 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 F\u00f6rderung 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)
- O 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)
- O 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) and Distinguished Professor in South Africa
- O 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
- O Production and Operations Management
- Discrete Applied Mathematics
- O Discrete Mathematics
- INFORMS Journal on Computing
- Omega
- Journal of Scheduling
- Mathematical Methods in Operations Research (MMOR)
- OR Spectrum
- Information Systems and Operational Research (INFOR)

- O European Journal of Operational Research
- Discrete Optimization
- Artificial Intelligence
- Annals of Operations Research
- OR Letters
- O Computers & Operations Research
- Information Processing Letters
- Computational Management Science
- Journal of Combinatorial Optimization
- IEEE Transactions on Parallel and Distributed Systems
- Computers and Industrial Engineering
- O Int. J. Production Economics
- Journal of the Operational Research Society (JORS)

- Journal of Business Economics
- Journal of Heuristics
- Naval Research Logistics
- IEEE Transactions on Systems, Man and Cybernetics
- IEEE Transactions on Evolutionary Computation
- O Int. Journal of Production Research
- O Int. J. Flexible Manufacturing Systems
- O Int. Transactions in Operational Research
- Information Science
- O 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
- O J. Industrial and Management Optimization
- IEEE Access

- IEEE Transactions on Intelligent Transportation Systems
- O Lecture Notes in Computer Science
- O Flexible Services and Manufacturing
- O 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
- $\ \, \bigcirc$ 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

- WI2006 Information Systems in Transportation and Traffic Multi-conference Wirtschaftsinformatik (MKWI) in Passau
- 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

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 Pro*blems (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 Int. Conference on the *Practice and Theory of Automated Timetabling (PATAT)*
 - in Montreal 2008, Belfast 2010, York 2014, Udine 2016, Vienna 2018; Leuven 2022
 - 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 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

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 Conference Logistics Analytics

Analytics in Minsk 2018

AllA Int. Conference of Artificial Intelligence and Industrial Applications (AllA) 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, Athenaum 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* (2023), (to appear).

- [25] E. Pesch and W. Poguntke. A characterization of absolute retracts of n-chromatic graphs, *Discrete Mathematics* 57 (1985), 99–104.
- [26] E. Pesch. Minimal extensions of graphs to absolute retracts, *Journal of Graph Theory* 11 (1987), 585–598.
- [27] E. Pesch. Products of absolute retracts, *Discrete Mathematics* 69 (1988), 179–188.
- [28] H.-J. Bandelt and E. Pesch. A Radon theorem for Helly graphs, **Archiv Math.** 52 (1989), 95–98.
- [29] H.-J. Bandelt and E. Pesch. Dismantling absolute retracts of reflexive graphs, *European Journal of Combinatorics* 10 (1989), 211–220.
- [30] H.-J. Bandelt and E. Pesch. Efficient characterizations of n-chromatic absolute retracts, *Journal of Combinatorial Theory*, Ser. B 53 (1991), 5-31.
- [31] 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.
- [32] 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.
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