

## Talks

1. "Healthcare Logistics", CTMI Conference on Transfer between Mathematics & Industry, Santiago de Compostela, Spain, invited talk 2019
2. "Digitale Rettungskette", Jahrestreffen des Deutschen Reanimationsregisters" Düsseldorf, 2019
3. "Healthcare Logistics", 12th Edition PhD Summer Academy in Logistics and Supply Chain Management, Zaragoza, Spain, 2019
4. "Healthcare Logistics", University of Auckland, New Zealand, invited talk 2018
5. "Time Traps in Supply Chains: Is Optimal Still Good Enough?", International Symposium on Locational Decisions (ISOLDE), Toronto, Canada, 2017
6. "Predictive models and information system", Third International Conference on Health Care Systems Engineering, Florence, Italy, invited talk, 2017
7. "Smarte Lösungen für Gesundheit Wohl und Pflege", Eröffnung Mittelstandskompetenzzentrum, Stuttgart, invited talk, 2017
8. "Risk aware supply chain planning: is optimal still good enough?", International Center for Mathematical Science, Edinburgh, invited talk, 2017
9. "Supply Chain Design with Risk Consideration: CPLP-Risk", Tagung der European Working Group on Locational Analysis (EWGLA), 2016
10. "Neue Optimierungsansätze im Kontext von Industrie 4.0", PTV Frankfurt, invited talk, 2016
11. "The Risk-Aware Multi-Period Capacitated Plant Location Problem", ILS Conference 2016, Bordeaux, France, invited talk, 2016
12. "Operations Research in Health Care", University of Exeter, United Kingdom, invited talk, 2016
13. "Operations Research for Modern Logistics", University of Edinburgh, Scotland, invited talk, 2016
14. "Energie-effiziente Produktionsentscheidungen durch Operations Research Methoden", Zentralverband Elektrotechnik und Elektronikindustrie e. V., Frankfurt, invited talk, 2016
15. "Is Optimal Still Good Enough? – Modern Supply Chain Planning", 27<sup>th</sup> European Conference on Operations Research, Glasgow, United Kingdom, invited talk, 2015
16. "Online optimization with lookahead and the relation to new IT techniques in logistics" Université de Lorraine, Metz, France, invited talk, 2015
17. "Healthcare Logistics", Forte die Bard, Italy, invited talk, 2014
18. "Logistikoptimierung in der Klinik", eHealth-Forum Freiburg, 2014
19. "How to Publish in COR – Ask the Editor", Zinal, Switzerland, invited talk, 2012
20. "Operations Research in Health Care Logistics", Istanbul, Turkey, invited talk, 2012

21. "A Multi-stage Stochastic Supply Network Design Problem with Financial Decisions and Risk Management", Combinatorial Optimization, Routing and Location Meeting (Coral) 2012, Benicàssim, Castelló, Spain, invited talk, 2012
22. "Hub and Spoke Network Design with Single-assignment Capacity Decisions and Balancing Requirements", Charlotte, USA, invited talk, 2011
23. "Standortplanung für agile Logistiknetzwerke – Modelle und Algorithmen", Nürnberg, invited talk, 2011
24. "Mathematical Models for Territory Design and Extensions", Kuwait, invited talk, 2011
25. "Location Problems in Supply Chain Management", Istanbul, Turkey, invited talk, 2011
26. "A Multi-stage Stochastic Supply Chain Network Design Problem with Financial Decisions and Risk", Conference of the Institute for Operations Research and the Management Sciences (INFORMS) 2010, Austin, USA, 2010
27. "Location Problems in Supply Chain Management", Spring School HEC Montreal, Montreal, Canada, invited talk, 2010
28. "Multiperiod Location Problems for Supply Network Planning", Dagstuhl Seminar Grand Challenges for Discrete Event Logistics Systems, Wadern, invited talk, 2010
29. "Home Health Care – Models and Algorithms", Conference of the Institute for Operations Research and the Management Sciences (INFORMS) 2009, San Diego, USA, 2009
30. "Location Problems in Agricultural Supply Chains", EURO Summer Institute Lleida, Lleida, Spain, invited talk, 2009
31. "Mathematical Methods in Supply Chain Management", Universidad de Sevilla, Sevilla, Spain, invited talk, 2009
32. "Krankenhauslogistik – Die andere Gesundheitsreform", Ruhr-Universität Bochum, Bochum, invited talk, 2009
33. "Supply Chain Management and Territory Design", Universidad Rey Juan Carlos, Madrid, Spain, invited talk, 2009
34. "WEEE and Max Dispersion Territory Design Problems", Conference of the Institute for Operations Research and the Management Sciences (INFORMS) 2008, Washington DC, USA, 2008
35. "Location Planning using Geographic and Demographic Data", OR2008, Augsburg, 2008
36. "Discrete Ordered Median Problems: Models, Solution Techniques and Extensions", Saint-Maxime La Baume, France, invited talk, 2008
37. "Location Planning using Geographic and Demographic Data", International Symposium on Locational Decision (ISOLDE) XI, Santa Barbara, USA, 2008
38. "The Maximal Dispersion Territory Design Problem", International Workshop on Operations Research (IWOR), Madrid, Spain, 2008

39. "Location Problems in Supply Chain Management", 13° Congresso da APDIO, Universidade de Trás-os-Montes e Alto Douro, Vila Real, Portugal, invited plenary, 2008
40. "Hospital Logistics", Ecole des Mines, Nantes, France, invited talk, 2008
41. "Territory Design Problems", Universitat de València, Spain, invited talk, 2007
42. "Location Problems in Supply Chain Management", Universitat Politècnica de Catalunya, Barcelona, Spain, invited talk, 2007
43. "Planning Patient Transports in Hospitals: Theory and Practice", OR in Health Care Conference, University of Twente, Netherlands, invited plenary, 2007
44. "Location Problems in Supply Chain Management", Symposium „Optimierung logistischer Systeme – Verfahren und Erfahrungen“, Dortmund, invited plenary, 2007
45. "Process Improvements in Hospitals – Clinical Pathways and Appointment Planning", Conference of the Institute for Operations Research and the Management Sciences (INFORMS) 2007, Seattle, USA, 2007
46. "Patient Transports in Hospitals", 33<sup>rd</sup> International Conference on Operational Research Applied to Health Services (ORAHS), St. Etienne, France, 2007
47. "Clinical Pathways and Appointment Planning", 22<sup>nd</sup> European Conference on Operational Research (EURO), Prag, Czech Republic, 2007
48. "Ordered Median Problems", III European-Latin-American Workshop on Engineering Systems (SELASI), Curicó, Chile, Eröffnungsvortrag, 2007
49. "The Ordered Median Location Problem: A Unified Tool for Location Analysis", III European-Latin-American Workshop on Engineering Systems (SELASI), Curicó, Chile, 2007
50. "Real World Location Problems", Universidad de Chile, Santiago de Chile, Chile, invited talk, 2007
51. "Krankenhauslogistik – Klinische Pfade und Terminplanung", ifab-Workshop "Erfolgsfaktor Arbeitszeit im Krankenhaus", Karlsruhe, invited talk, 2007
52. „Location Problems in Supply Chain Management“, EURO Winter Institute on Location and Logistics, Estoril, Portugal, invited talk, 2007
53. "A Tabu Search Based Heuristic for Dynamic Dial-a-ride Problems Arising in In-house Hospital Transportation", Conference of the Association of European Operational Research (EURO) XXI, Reykjavík, Iceland, 2006
54. "MCDM Location Problems", II European-Latin-American Workshop on Engineering Systems (SELASI), 2006, Porto, Portugal, 2006
55. "Territory Design Problems", Combinatorial Optimization, Routing and Location Meeting (Coral) 2006, Tenerife, Spain, 2006
56. "Process Improvements in Hospital", OR2006, Karlsruhe, 2006
57. "Planning Patient Transports in Hospitals", Universidad de Murcia, Spain, invited talk, 2006

58. "Patient Transportation in Hospitals", Spring School on Vehicle Routing, Montreal, Canada, 2006
59. „A New Geometric Approach to Territory Design Problems“, Annual Meeting of the Canadian Operational Research Society (CORS) 2006, Montreal, Canada, 2006
60. „Planning Patient Transports in Hospitals“, Universitat Politècnica de Catalunya, Barcelona, Spain, invited talk, 2005
61. „Planning Patient Transports in Hospitals: Theory and Practice“, I European-Latin-American Workshop on Engineering Systems (SELASI), Trujillo, Peru, 2005
62. „The Ordered Median Problem – A Unified Approach to Location Theory“, International Symposium on Locational Decision (ISOLDE) X, Sevilla, Spain, 2005
63. „Logistikmanagement: Effizienzsteigerung durch moderne Planungsverfahren“, 3. Unternehmertag an der Universität des Saarlandes, Saarbrücken, 2005
64. „New Solution Strategies for Flexible Discrete Location Models“, OR2005, Bremen, 2005
65. „Territory Design: Algorithms and GIS-Integration“, Treffen der Sociedad de Estadística e Investigación Operativa (SEIO) 2004, Cádiz, Spain, invited plenary, 2004
66. „Planning Patient Transports in Hospitals: Theory and Practice“, OR2004, Tilburg, Netherlands, 2004
67. „Dynamic Multi-commodity Capacitated Facility Location“, Mathematics of the Supply Chain, Oberwolfach, invited talk, 2004
68. „Planning Patient Transports in Hospitals: Insights and a Project Report“, OR2003, Heidelberg, 2003
69. „Real World Location Problems“, Operation Research Peripatetic Postgraduate Programme (ORP3), invited talk, Lambrecht, 2003
70. „Territory Planning in Geo-Marketing“, Joint Conference of the Institute for Operations Research and the Management Sciences (INFORMS) and the Association of European Operational Research (EURO), Istanbul, Turkey, 2003
71. „Dynamic Multi-Commodity Capacitated Location: A Mathematical Modeling Framework for Strategic Supply Chain Planning“, Joint Conference of the Institute for Operations Research and the Management Sciences (INFORMS) and the Association of European Operational Research (EURO), Istanbul, Turkey, 2003
72. „Simulation und Optimierung zur Planung und Steuerung von Kommissioniersystemen“, VDI-Seminar über Optimierte Kommissioniersysteme, Karlsruhe, invited talk, 2003
73. „Presentation of the ITWM“, McGill University, Montreal, Canada, invited talk, 2003
74. „Real World Location Problems“, University of Florida, Gainesville, USA, invited talk, 2003
75. „New Results for Discrete Ordered Median Problems“, International Symposium on Locational Decision (ISOLDE) IX, Fredericton, Canada, 2002

76. „Solution Techniques for Discrete Ordered Median Problems“, Meeting of the European Chapter on Combinatorial Optimization (ECCO) 2002, Lugano, Italy, 2002
77. „Simulation und Optimierung zur Planung und Steuerung von Kommissioniersystemen“, VDI-Seminar über Optimierte Kommissioniersysteme, Stuttgart, invited talk, 2002
78. „Recent Developments on Ordered Median Problems“, Mathematical Methods in Logistics, Oberwolfach, 2001
79. „Locational Decisions in Supply Chain Management“, Conference of the Institute for Operations Research and the Management Sciences (INFORMS) 2001, Miami, USA, 2001
80. „Strategic Decisions in Supply Chain Management“, OR2001, Duisburg, 2001
81. „A Dynamic Two-Echelon Capacitated Location Problem with Inventory“, Meeting of the European Chapter on Combinatorial Optimization (ECCO) 2001, Bonn, 2001
82. „Reformulations for Discrete Ordered Weber Problems“, 12<sup>th</sup> Meeting of the European Working Group on Locational Analysis, Barcelona, Spain, 2000
83. „Mathematical Methods of Logistics“, Universidad Nacional de Trujillo, Peru, invited talk, 2000
84. „A Unified Approach to Location Problems“, Deutsche Mathematiker-Vereinigung (DMV) 2000, Dresden, 2000
85. „Discrete Ordered Weber Problems“, OR2000, Dresden, 2000
86. „Discrete and Network Ordered Weber Problems“, 17<sup>th</sup> International Symposium on Mathematical Programming, Atlanta, USA, 2000
87. „Strategic Network Design“, SAP-Workshop im Rahmen des Supply Chain Institute, Walldorf, invited talk, 2000
88. „Simulation und Online-Optimierung von komplexen Kommissioniersystemen“, VDI-Seminar über Optimierte Kommissioniersysteme, Stuttgart, invited talk, 2000
89. „Finite Dominating Sets for Generalized Network Location Problems“, Symposium on Operations Research (SOR 99), Magdeburg, 1999
90. „New Results on Ordered Weber Problems“, Université Louvain-la-Neuve, Belgium, invited talk, 1999
91. „Approximative Solutions of Location Problems“, International Symposium on Locational Decision (ISOLDE) VIII, Coimbra/Estoril, Portugal, 1999
92. „Ordered Weber Problems“, International Conference on Optimization (SIGOPT) 99, Trier, 1999
93. „Flexible Objective Functions for Location Problems“, Université Libre de Bruxelles, Brüssel, Belgium, invited talk, 1998
94. „Locating a Robust Facility“, International Conference on Operations Research (OR'98), Zürich, Switzerland, 1998

95. „Ordered Weber Problems – A Flexible Approach to Model Location Problems“, 4<sup>th</sup> International Symposium on Quantitative Methods (SQM-4), Chios, Griechenland, invited talk, 1998
96. „Sandwich Approximation for Location Problems“, 10<sup>th</sup> Meeting of the European Working Group on Locational Analysis, Murcia, Spain, 1998
97. „LOLA – A Toolkit for Solving Location Problems“, Universidad de Sevilla, Spain, invited talk, 1997
98. „Pareto Locations on Networks“, Symposium on Operations Research (SOR 97), Jena, 1997
99. „Sandwich Approximation for Restricted Location Problems“, 16<sup>th</sup> International Symposium on Mathematical Programming, Lausanne, Switzerland, 1997
100. „Locational Planning and Computational Geometry“, DFG-Kolloquium, 1997
101. „Multi-Kriterielle Standortplanung auf Netzwerken“, DFG-Kolloquium, Bonn, 1997
102. „Ordered Weber Problems“, Workshop über Standortplanung: Fachbereich Mathematik, Universität Kaiserslautern, 1997
103. „The Software Package LoLA and its Adaption to Application-oriented Location Problems“, DFG-Kolloquium, Schloss Dagstuhl, Wadern, 1996
104. „Weber's Problem with Attraction and Repulsion under Polyhedral Gauges“, International Symposium on Locational Decision (ISOLDE) VII, Edmonton and Jasper, Alberta, Canada, 1996
105. „Über die Anzahl von Kriterien die nötig sind, um über Pareto-Optimalität zu entscheiden“, Fachbereich Mathematik, Universität Dortmund, invited talk, 1996
106. „Overcoming problems of convex analysis by means of computational geometry“, Symposium on Computational Geometry and Location Theory, Universidad de Sevilla, Spain, 1996
107. „On the Number of Criteria Needed to Decide Pareto Optimality with an Application to Location Theory“, Universidad de Sevilla, Spain, invited talk, 1996
108. „Discretization of Location Problems“, Universidad Cádiz, Spain, invited talk, 1996
109. „Introduction to Location Problems“, Faculty of Economics, Universidad de Sevilla, Spain, invited talk, 1996
110. „A Reduction Result for Convex Vector Optimization Problems and its application to Location Problems“, Université Libre de Bruxelles, Brüssel, Belgium, invited talk, 1995
111. „Location Problems with Multiple Criteria Under Polyhedral Gauges“, 8<sup>th</sup> Meeting of the EURO Working Group on Locational Analysis, Lambrecht, 1995
112. „A Reduction Result for Convex Vector Optimization Problems“, Symposium on Operations Research, Passau, 1995

113. „Restricted Center Problems under Polyhedral Gauges“, 12<sup>th</sup> EURO Summer Institute on Locational Analysis, Puerto de La Cruz, Tenerife, Spain, 1995
114. „Restricted Weber Problems under Polyhedral Gauges“, Optimization Days 1995, Montreal, Canada, invited talk, 1995
115. „Multicriterial and Restricted Location Problems with Polyhedral Gauges“, International Conference on Operations Research OR'94, Berlin, 1994
116. „Bicriteria and Restricted Planar 2-Median Problems“, 7<sup>th</sup> Meeting of the EURO Working Group on Locational Analysis, Brüssel, Belgium, 1994
117. „Restricted and Bicriteria 2-Facility Location Problems“, 18<sup>th</sup> Symposium on Operations Research, Universität zu Köln, 1993
118. „Efficient Algorithms for Bicriterial (restricted) Planar Median Location Problems“, International Symposium on Locational Decision (ISOLDE) VI, University of the Aegean, Lesvos and Chios, Griechenland, 1993
119. „Restriktive Standortprobleme“, Studentenkonferenz Mathematik '92, Berlin, invited talk, 1992