

Curriculum Vita Richard Weber

Department of Industrial Engineering
Universidad de Chile (www.dii.uchile.cl)
<http://richardweber.wixsite.com/home>

Date of Birth: November 16, 1960
Citizenship: German

Place of birth: Germany

I. Education

1986: Diploma in Mathematics, RWTH Aachen University, Aachen, Germany
1988: M.Sc. Operations Research, RWTH Aachen University, Aachen, Germany
1992: PhD Operations Research, RWTH Aachen University, Aachen, Germany

II. Academic appointments

08/2014 – present	Director Graduate School, Faculty of Physical Sciences and Mathematics, Universidad de Chile
02-05/2013:	Visiting Professor KU Leuven, Belgium (invited by Prof. Dr. Jan Vanthienen).
05/2005:	Visiting Professor University of Alberta, Edmonton, Canada (invited by Prof. Dr. Witold Pedrycz)
09-12/2003:	Visiting Professor Research Center for Collaborative Research, The University of Tokyo, Japan (invited by Prof. Dr. Hiroshi Yasuda)
1999 - present:	Professor; Universidad de Chile, Department of Industrial Engineering.
1993 – 1998:	Adjunct Professor; RWTH Aachen University, Aachen, Germany
1993 – 1998:	Consultant at MIT GmbH, Aachen, Germany
04 – 07/1992:	Visiting Researcher Department of Industrial Engineering Osaka Prefecture University, Osaka, Japan (invited by Prof. Dr. Hideo Tanaka)

07/1992: Visiting Researcher LIFE Institute - Laboratory for International Fuzzy Engineering Research, Yokohama, Japan

III. Principal Research Interests:

Data Science, Business Analytics, Machine Learning

IV. Awards

2004-2006: Researcher of the program “*Ciencia de Frontera*” (“Frontier Science”) of the Chilean Science Academy

1992: Borchers Plakette Award. The Borchers Plakette Award is named after an earlier Rector of RWTH Aachen University - Prof. Wilhelm Borchers. Created in 1909, it is awarded for outstanding doctoral degree theses.

V. Professional Activities

2017 - present: Board member of the Project “*Una Nueva Ingeniería para el año 2030*” (A New Engineering for the year 2030), Facultad de Ciencias Físicas y Matemáticas, Universidad de Chile.

2016: External evaluator of candidates for the position “Data and Process Science” at KU Leuven in Belgium.

2015: Member of the Expert Panel for the Competition “Gobernarte 2015: Premio ‘Eduardo Campos’”, area Big Data; see: <https://www.nexso.org/en-us/c/Gobernarte2015>
Evaluation of projects for innovation in public management for cities and municipalities.

2015: Committee Member for the Accreditation of the Study Programs in Industrial Engineering and Economics of the Paraguayan-German University of Applied Sciences, Asunción Paraguay; ZEvA (Zentrale Evaluations- und Akkreditierungsagentur Hannover, Germany)

2014: Evaluator for the Fund for Scientific and Technological Research (Foncyt, Argentine); PICT-2014

- 2012 - 2016: Member of the Committee of the area “Engineering Sciences and Geosciences” of the National Accreditation Committee (CNA).
- 2012 - present: Evaluator for the “Research Fund - Flanders (FWO)” which is Belgium’s National Science Foundation.
- 2012: Evaluator for the National Agency for Evaluation and Prospective (*Agencia Nacional de Evaluación y Prospectiva (ANEP)*) of the Spanish Ministry of Economy and Competitiveness.

VI. Research Projects

- 2018 – 2022: “Dynamic clustering using Evolving Features” (Fondecyt project 1181036); Principal Investigator; Total project amount: USD125,000 approx.
- 2017 – 2019: “Digital Crime Observatory in Chile: An intelligent support system for the Chilean car insurance industry, regarding cars and accessories” (Fondef Project ID16I10222); Principal Investigator; Total project amount: USD230,000 approx.
- 2014 – 2016: “Feature selection in dynamic clustering with applications to crime and business analytics” (Fondecyt project 1140831); Principal Investigator; Total project amount: USD120,000 approx.
- 2013 - 2016: “PRASEDEC: Practice-driven Advance of Studies and Exchange between the University of Duisburg-Essen and the University of Chile”; Cooperation project with University of Duisburg-Essen, Germany; Co-Investigator
- 2013 – 2014: “Dynamic clustering, from an academic approach to a real business solution: theory and application”; Explorative Scientific Co-operation Programme between KU Leuven, Belgium and Universidad de Chile; Principal Investigator
- 2012 – 2013: “Development of rule-based classification models using profit maximization”; Explorative Scientific Co-operation Programme between KU Leuven, Belgium and Universidad de Chile; Principal Investigator
- 2011 – 2012: “Profit driven metrics for a holistic approach to evaluating Data Mining Models”; Explorative Scientific Co-operation

	Programme between KU Leuven, Belgium and Universidad de Chile; Principal Investigator
2010-2013:	“Quantitative Methods in Security” (Anillo project ACT087); Co-Investigator; Total project amount: USD230,000 approx.
2009 - 2019:	“Complex Engineering Systems Institute” (Basal project FB016); Principal co-Investigator; Annual project amount: USD2,500,000 approx.
2007 – 2017:	“Complex Engineering Systems Institute” (Millennium Institute ICM: P-05-750 004-F); Principal co-Investigator
2004 – 2006	“Feature Selection in Dynamic Data Mining” (Fondecyt project 1040926); Principal Investigator; Total project amount: USD84,000 approx.
2005 – 2006	“Predictive Crime Model for the Metropolitan Area of Santiago” (Fondef Project D03I1025); Co-Investigator
2004 – 2005	“Development of Management Technologies to increase the Productivity of Supply Chains in Industries of Massive Consumption: Application to Supermarkets” (Fondef project D03I1057); Co-Investigator
2003 – 2004	“Development of Management Systems to Improve Competitiveness of Chilean Avocado: Application to Post-Harvest Technologies” (Fondef project D02I1015); Co-Investigator
2003 – 2004	Member of the Network of Excellence EUNITE (www.eunite.org) in the Sixth Framework Programme of the European Union
2001 – 2006	“Complex Engineering Systems” (Millennium Nucleus); Associate Investigator
2000 – 2001	“Algorithms for Dynamic Data Mining” (Fondecyt Project 1000865); Principal Investigator
1999 – 2002	“Automatic Identification and Prediction of Traffic States as Basis for Improved Traffic Management”; Cooperative Research between Chile and Germany”; Co-Investigator
1997 – 1998	”Theory and Methodology of Dynamic Fuzzy Data Analysis” (Project funded by the German National Science Foundation:

DFG – Deutsche Forschungsgemeinschaft ZI 104/27-1);
Principal Co-Investigator

- 1997 – 1998 "Use of Fuzzy Control in Traffic Control Facilities" (Project funded by *Bundesanstalt für Straßenwesen* (German Institution for Traffic) FE03.299/1996/IRB); Co-Investigator
- 1996 – 1997 "MEDEA – Quality Control for Household Appliances by On-line Evaluation of Mechanical Defects" (Project funded by the European Commission); Co-Investigator
- 1993 – 1995 "Decision making for requalification of structures" (Project funded by the European Commission as Brite-Euram BE 5935); Co-Investigator.

VII. Industrial Experience

- 2015 - 2016 "Optimal Buying Processes associated with Transaction Costs and User Satisfaction in *Chilecompra*", Chilecompra. Senior consultant.
- 2015 "Towards a Value-based Innovation Culture at *Chilecompra*'s top management" Chilecompra. Project Director.
- 2015 "*Crece Mujer* ('women growing')", BancoEstado, Member of the project's board of directors.
- 2013 "Models for Fraud Detection in Car Insurance", Prose-Chile. Project Director.
- 2012 "Improvement of the Process of Crime Analysis", Policía de Investigaciones de Chile
- 2011 "Statistical Model to Predict Prison Population", Gendarmería de Chile
- 2005 – 2007 "System to Identify Profitable Credits for *Banco del Desarrollo Microempresas*", Banco del Desarrollo Microempresas
- 2005 – 2006 "Improved System to Grant and Administer Credits", INDAP – Instituto de Desarrollo Agropecuario
- 2004 – 2005 "Development of Predictive Models for an Airline", LAN Chile

2003 –2004	“Development of a System to Detect Fraudulent Importations”, SUNAT (Peruvian Tax Department; <i>Superintendencia nacional de Administración Tributaria</i>), Lima, Perú; Contract TC-00-05-00-8-RG CN°0116.
2003-2005	“Development of Mathematical Models to Assign Operators at the Points-of-Sale at Metro S.A.”, Metro S.A.
2002 –2003	“Development of Churn Prediction Models using Advanced Data Analysis Techniques”, Banco de Crédito e Inversiones
2001 –2003	“Prediction of local intensity of events triggered by Rock Instabilities using Data Mining Techniques”, IM2, Codelco
1993 – 1998:	Consultant at the consulting firm MIT GmbH, Aachen, Germany

VIII. Journal Service

2018:	Co-Editor of the Special Issue “Applied Soft Computing for Business Analytics” for the journal “Information Sciences”, Elsevier. To be published in 2019.
2017:	Co-Editor of the Special Issue “Applied Soft Computing for Business Analytics” for the journal “Applied Soft Computing”, Elsevier. Published in 2017.
2016 - present:	Associate Editor for the journal “Applied Soft Computing”, Elsevier.
2015:	Co-Editor of the Special Issue “Data Analysis and Intelligent Optimization with Applications” for the journal “Machine Learning”, Springer-Verlag.
2014:	Co-Editor of the Special Issue “Business Analytics in Finance and Industry” for the journal “Intelligent Data Analysis”, IOS Press.
2013 - present:	Associate Editor for the Chilean journal “ <i>Revista Ingeniería de Sistemas</i> ” Department of Industrial Engineering, FCFM, Universidad de Chile.
2010 - 2016:	Editorial Board member for the journal “Applied Soft Computing”, Elsevier.

- 2012 - present: Editorial Board member for the journal “Intelligent Data Analysis”, IOS Press.
- 2010: Co-Editor of the Special Issue “Business Analytics and Intelligent Optimization” for the journal “Intelligent Data Analysis”, IOS Press.
- 2008: Co-Editor of the Special Issue “Soft Computing for Dynamic Data Mining” for the journal “Applied Soft Computing”, Elsevier.

Reviewer for the following journals:

Artificial Intelligence in Medicine (AIIM), Applied Soft Computing, European Journal of Operational Research, Fuzzy Sets and Systems, IEEE Transactions on Fuzzy Systems, Information Sciences, Intelligent Data Analysis, International Journal of General Systems, International Transactions in Operational Research, Naval Research Logistics Quarterly, OMEGA - The International Journal of Management Science, Soft Computing.

IX. Thesis Supervision

Completed PhD theses:

- 2016 Ramiro Saltos: Soft Clustering in Static and Dynamic Environments.
- 2015 Fredy Troncoso: Identifying Associations and Key Individuals Considering Individual Attributes to Analyze Criminal Gangs as a Social Network
- 2014 Jaime Miranda: Optimization Models for Programming Time Windows and Class Room Assignments at Universities.
- 2012 Cristian Bravo: Methods to Estimate Credit Risk based on Data Mining and Game Theory
- 2011 Sebastian Maldonado: Feature Selection Models for Support Vector Machines

PhD commission member of the following external PhD theses:

- 2018 Álvaro Flores: *Topic to be defined*. Supervisor: Pascal van Hentenryck, Australian National University

- 2018 Pascal Held: “Dynamic Clustering in Social Networks”. Supervisor: Rudolf Kruse, University of Magdeburg, Germany
- 2017 Vanessa Guerrero: “Mathematical Optimization for the Visualization of Complex Datasets”. Supervisor: Emilio Carrizosa, University of Seville, Spain
- 2015 Alex Seret: “Business-Driven Data Mining: New algorithms and Applications”. Supervisor: Bart Baesens, KU Leuven, Belgium
- 2009 Mario Ventresca: “Inducing Symmetry in Computational Intelligence”. Supervisor: Hamid Tizhoosh, University of Waterloo, Canada

35 Completed Master theses

X. Publications

Google scholar:

<https://scholar.google.com/citations?user=WzCAULkAAAAJ&hl=en>

Books

Flores, V., Gomide, F., Janusz, A., Meneses, C., Miao, D., Peters, G., Ślęzak, D., Wang, G., Weber, R., Yao, Y. (Eds.) (2016): Rough Sets. LNCS 9920, Springer, Cham.

Weber, R. (1992): Entwicklung und Anwendung von Verfahren zur automatischen Akquisition unsicheren Wissens. VDI-Verlag, Düsseldorf (PhD thesis in German; 210 pages) (“Development and Application of Methods for Automatic Knowledge Acquisition of Uncertain Knowledge”).

Journal articles

Merigó, J. M., Pedrycz, W., Weber, R., de la Sotta, C. (2018): Fifty Years of Information Sciences: A Bibliometric Overview. Information Sciences 432, 245–268. DOI: <https://doi.org/10.1016/j.ins.2017.11.054>

Saltos, R., Weber, R., Maldonado, S. (2017): Dynamic Rough-Fuzzy Support Vector Clustering. IEEE Transactions on Fuzzy Systems 25 (6), 1508 – 1521. DOI: <http://dx.doi.org/10.1109/TFUZZ.2017.2741442>

- Figuerola, N., L'Huillier, G., Weber, R. (2017): Adversarial Classification Using Signaling Games With An Application to Phishing Detection. *Data Mining and Knowledge Discovery* 31, (1), 92-133
DOI: <http://dx.doi.org/10.1007/s10618-016-0459-9>
- Saltos, R., Weber, R. (2016): A Rough-Fuzzy Approach for Support Vector Clustering. *Information Sciences* 339, 353–368
DOI: <http://dx.doi.org/10.1016/j.ins.2015.12.035>
- Espejo, G., L'Huillier, G., Weber, R. (2016): A Game-Theoretical Approach for Policing Decision Support. *European Journal of Applied Mathematics* 27 (3), 338-356
DOI: <https://doi.org/10.1017/S0956792515000480>
- Maldonado, S., Carrizosa, E., Weber, R. (2015): Kernel Penalized K-means: A feature selection method based on Kernel K-means. *Information Sciences* 322, 150-160
DOI: <http://dx.doi.org/10.1016/j.ins.2015.06.008>
- Maldonado, S., Flores, A., Verbraken, Th., Baesens, B., Weber, R. (2015): Profit-based Feature Selection using Support Vector Machines - General Framework and an Application for Customer Retention. *Applied Soft Computing* 35, 740-748
DOI: <http://doi.org/10.1016/j.asoc.2015.05.058>
- Bravo, C., Thomas, L., Weber, R. (2015): Improving credit scoring by differentiating defaulter behavior. *Journal of the Operational Research Society* 66, 771–781
DOI: <http://doi.org/10.1057/jors.2014.50>
- Maldonado, S., Montoya, R., Weber, R. (2015): Advanced Conjoint Analysis using Feature Selection via Support Vector Machines. *European Journal of Operational Research* 241 (2), 564–574
DOI: <http://doi.org/10.1016/j.ejor.2014.09.051>
- Maldonado, S., Perez, J., Weber, R., Labbé, M. (2014): Feature selection for Support Vector Machines via Mixed Integer Linear Programming. *Information Sciences* 279, 163-175
DOI: <http://doi.org/10.1016/j.ins.2014.03.110>
- Verbraken, T., Bravo, C., Weber, R., Baesens, B. (2014): Development and application of consumer credit scoring models using profit-based classification measures. *European Journal of Operational Research* 238 (2), 505-513
DOI: <http://doi.org/10.1016/j.ins.2014.07.015>

- Maldonado, S., Weber, R., Famili, F. (2014): Feature selection for high-dimensional class-imbalanced data sets using Support Vector Machines. *Information Sciences* 286, 228-246
DOI: <http://doi.org/10.1016/j.ins.2014.07.015>
- Peters, G., Crespo, F., Lingras, P., Weber, R. (2013): Soft clustering - fuzzy and rough approaches and their extensions and derivatives. *International Journal of Approximate Reasoning* 54 (2), 307-322
DOI: <https://doi.org/10.1016/j.ijar.2012.10.003>
- Bravo, C., Maldonado, S., Weber, R. (2013): Granting and managing loans for micro-entrepreneurs: New developments and practical experiences. *European Journal of Operational Research* 227(2), 358-366
DOI: <http://doi.org/10.1016/j.ins.2014.03.110>
- Devia, N., Weber, R. (2013): Generating crime data using agent-based simulation. *Computers Environment and Urban Systems* 42, 26-41
DOI: <http://doi.org/10.1016/j.compenvurbsys.2013.09.001>
- Peters, G., Weber, R., Nowatzke, R. (2012): Dynamic rough clustering and its applications. *Applied Soft Computing* 12 (10), 3193-3207
DOI: <http://doi.org/10.1016/j.asoc.2012.05.015>
- Peters, G., Weber, R. (2012): Dynamic clustering with soft computing. *Wiley Interdisciplinary Reviews-Data Mining and Knowledge Discovery* 2(3), 226-236
DOI: <http://dx.doi.org/10.1002/widm.1050>
- Brown, D. E., Famili, F., Paass, G., Smith-Miles, K., Thomas, L. C., Weber, R., Baeza-Yates, R., Bravo, C., L'Huillier, G., Maldonado, S. (2011): Future trends in business analytics and optimization. *Intelligent Data Analysis* 15 (6), 1001–1017
DOI: <http://dx.doi.org/10.3233/IDA-2011-0506>
- Peters, G., Weber, R. (2011): A class of dynamic rough partitive algorithms. *International Journal of Intelligent Systems*, 26, 540–554
DOI: <http://dx.doi.org/10.1002/int.20483>
- Maldonado, S., Weber, R., Basak, J. (2011): Simultaneous feature selection and classification using kernel-penalized support vector machines. *Information Sciences* 181, 115-128
DOI: <http://dx.doi.org/10.1002/int.20483>
- Bravo, C., L'Huillier, G., Lobato, J. L., Weber, R. (2010): Probability Estimation for Multiclass Problems Combining SVMs and Neural Networks. *Neural Network World* 20, No. 4, 475-489

- Guajardo, J., Weber, R., Miranda, J. (2010): A Model Updating Strategy for Predicting Time Series with Seasonal Patterns. *Applied Soft Computing* 10, 276-283
DOI: <http://dx.doi.org/10.1002/int.20483>
- Maldonado, S., Weber, R. (2009): A Wrapper Method for Feature Selection using Support Vector Machines. *Information Sciences* 179, 2208-2217
DOI: <http://dx.doi.org/10.1002/int.20483>
- Aburto, L., Weber, R. (2007): Improved Supply Chain Management based on Hybrid Demand Forecasts. *Applied Soft Computing* 7, No. 1, 136-144
DOI: <http://doi.org/10.1016/j.asoc.2005.06.001>
- Miranda, J., Montoya, R., Weber, R. (2005): Linear Penalization Support Vector Machines for Feature Selection. *Lecture Notes in Computer Science* 3776, 188-192
DOI: http://doi.org/10.1007/11590316_24
- Crespo, F., Weber, R. (2005): A Methodology for Dynamic Data Mining based on Fuzzy Clustering. *Fuzzy Sets and Systems* 150, No. 2, 267-284
DOI: <https://doi.org/10.1016/j.fss.2004.03.028>
- Velásquez, J. D., Weber, R., Yasuda, H., Aoki, T. (2005): Acquisition and maintenance of knowledge for online navigation suggestions. *IEICE Transactions on Information and Systems*, Vol. E88-D, No. 5, 993-1003
- Araya, S., Silva, M., Weber, R. (2004): A Methodology for Web Usage Mining and its Application to Target Group Identification. *Fuzzy Sets and Systems* 148, No. 1, 139-152
DOI: <https://doi.org/10.1016/j.fss.2004.03.011>
- Velásquez, J. D., Yasuda, H., Aoki, T., Weber, R. (2004): A new similarity measure to understand the visitor behavior in a web site. *IEICE Transactions on Information and Systems*, Vol. E87-D, No. 2, February, 389-396
- Velásquez, J. D., Yasuda, H., Aoki, T., Weber, R., Vera, E. (2003): Using Self Organizing Feature Maps to Acquire Knowledge about Visitor Behavior in a Web Site. *Lecture Notes in Computer Science* 2773, 951 – 958
DOI: http://doi.org/10.1007/978-3-540-45224-9_127
- Angel, A. M., Taladriz, L. A., Weber, R. (2003): Soquimich Uses a System Based on Mixed-Integer Linear Programming and Expert Systems to Improve Customer Service. *Interfaces* 33, No. 4, Jul/Aug 2003, 41-52
- Hofmeister, P., Joentgen, A., Mikenina, L., Weber, R., Zimmermann, H.-J. (2000): Komplexitätsreduktion in der Szenarioanalyse mit Hilfe dynamischer Fuzzy-

Datenanalyse. OR-Spektrum 22, No. 3, 403-420 (in German)
DOI: <http://doi.org/10.1007/PL00013339>

Joentgen, A., Mikenina, L., Weber, R., Zimmermann, H.-J. (1999): Dynamic Fuzzy Data Analysis Based on Similarity Between Functions. Fuzzy Sets and Systems 105, No. 1, 81-90

DOI: [https://doi.org/10.1016/S0165-0114\(98\)00337-6](https://doi.org/10.1016/S0165-0114(98)00337-6)

Joentgen, A., Mikenina, L., Weber, R., Zeugner, A., Zimmermann, H.-J. (1999): Automatic Fault Detection in Gearboxes by Dynamic Fuzzy Data Analysis. Fuzzy Sets and Systems 105, No. 1, 123-132

DOI: [https://doi.org/10.1016/S0165-0114\(98\)00442-4](https://doi.org/10.1016/S0165-0114(98)00442-4)

Meier, W., Weber, R., Zimmermann, H.-J. (1994): Fuzzy Data Analysis - Methods and Industrial Applications. Fuzzy Sets and Systems 61, 19-28

DOI: [https://doi.org/10.1016/0165-0114\(94\)90280-1](https://doi.org/10.1016/0165-0114(94)90280-1)

Lehmann, I., Weber, R., Zimmermann, H.-J. (1992): Fuzzy Set Theory - Die Theorie der unscharfen Mengen. OR-Spektrum 14, 1-9 (in German)

DOI: <http://doi.org/10.1007/BF01783496>

Weber, R., Werners, B., Zimmermann, H.-J. (1990): Planning Models for Research and Development. European Journal of Operational Research 48, 175-188

DOI: [https://doi.org/10.1016/0377-2217\(90\)90372-I](https://doi.org/10.1016/0377-2217(90)90372-I)

Book chapters

Weber, R. (2014): From Operations Research to Dynamic Data Mining and Beyond. In: Luebbecke, M., Weiler, A., Werners, B. (Eds.): Zukunftsperspektiven des Operations Research. Springer Gabler, Wiesbaden, 343-356

Crespo, F., Peters, G., Weber, R. (2012): Rough Clustering Approaches for Dynamic Environments. In: Peters, G., Lingras, P., Slezak, D., Yao, Y. (Eds.): Rough Sets: Selected Methods and Applications in Management and Engineering. Springer-Verlag, London, 39-50

Bravo, C., Weber, R. (2011): Semi-supervised constrained clustering with cluster outlier filtering. LNCS 7042, 347-354

Maldonado, S., Weber, R. (2011): Embedded Feature Selection for Support Vector Machines: State-of-the-Art and Future Challenges. LNCS 7042, 304-311.

Gutierrez, J., Parada, V. and Weber, R. (2010): Chilean Institute of Operations Research. Wiley Encyclopedia of Operations Research and Management Science

DOI: [10.1002/9780470400531.eorms0141](https://doi.org/10.1002/9780470400531.eorms0141)

Bravo, C., Figueroa, N., Weber, R. (2010): Modeling Pricing Strategies Using Game Theory and Support Vector Machines. In: Petra Perner (Ed.):

- Advances in Data Mining. Applications and Theoretical Aspects. LNCS 6171, Springer-Verlag, Berlin Heidelberg, 323-337
- Weber, R. (2009): Dynamic Data Mining. Encyclopedia of Data Warehousing and Mining, 2nd Edition, Ed.: John Wang, IGI Global, Hershey, 722-728
- Peters, G., Weber, R. (2008): A Dynamic Approach to Rough Clustering. In: Chien-Chung Chan, Jerzy W. Grzymala-Busse, Wojciech Ziarko (Eds.): Rough Sets and Current Trends in Computing. LNCS 5306, Springer-Verlag, Berlin Heidelberg, 379-388
- Peters, G., Lampart, M., Weber, R. (2008): Evolutionary Rough k-Medoid Clustering. In: J.F. Peters and A. Skowron (Eds.): Transactions on Rough Sets VIII, LNCS 5084, Springer-Verlag, Berlin Heidelberg, 289–306
- Peters, G., Tagg, R., Weber, R. (2008): An Application of Rough Set Concepts to Workflow Management. In: G. Wang et al. (Eds.): Rough Sets and Knowledge Technology, LNCS 5009, Springer-Verlag, Berlin Heidelberg, 715-722
- Guajardo, J., Weber, R. (2008): Dynamic Data Mining for Improved Forecasting in Logistics and Supply Chain Management. In: Haasis, H.-D., Kreowski, H.-J., Scholz-Reiter, B. (Eds.). Dynamics in Logistics, Proceedings of the First International Conference LDIC 2007, Springer 2008, 55-61
- Aburto, L., Weber, R. (2007): A Sequential Hybrid Forecasting System for Demand Prediction. In: Petra Perner (Ed.): Machine Learning and Data Mining in Pattern Recognition. LNAI 4571, Springer Verlag, Berlin, Heidelberg, 518-532
- Weber, R. (2007): Fuzzy Clustering in Dynamic Data Mining - Techniques and Applications. In: J. Valente de Oliveira and W. Pedrycz (Eds): Advances in Fuzzy Clustering and Its Applications. John Wiley and Sons, 315-332
- Crone, S. F., Guajardo, J., Weber, R. (2006): A study on the ability of Support Vector Regression and Neural Networks to Forecast Basic Time Series Patterns. In: IFIP International Federation for Information Processing, Vol. 217, Artificial Intelligence in Theory and Practice, ed. M. Bramer (Boston: Springer), 149-158
- Aburto, L., Weber, R. (2003): Demand Forecast in a Supermarket using a Hybrid Intelligent System. In: A. Abraham, M. Köppen, K. Franke (eds.): Design and Application of Hybrid Intelligent Systems. IOS Press, Amsterdam, Berlin, 1076-1083
- Schwartz, D., Smith, K.A., Churilov, L., Dally, M., Weber, R. (2003): Improving Risk Grouping Rules for Prostate Cancer Patients Using Self-Organising Maps. In: A. Abraham, M. Köppen, K. Franke (eds.): Design and Application of Hybrid Intelligent Systems. IOS Press, Amsterdam, Berlin, 126-135
- Aburto, L., Silva, M., Weber, R., (2003): Appendix A: Tools. In: Berthold, M., Hand, D. (eds.): Intelligent Data Analysis. Springer, Sec. ed., Berlin, Heidelberg 445-464
- Maturana, C., Weber, R. (2002): Feature Extraction by Distance Neural Network in Classification Tasks. In: A. Abraham, J. Ruiz-del-Solar, M. Köppen (eds.): Soft Computing Systems - Design, Management and Applications. IOS Press, Amsterdam, Berlin, 384-393

- Velásquez, J. D., Yasuda, H., Aoki, T., Weber, R. (2002): Voice codification using Self Organizing Map as data mining tool. In: A. Abraham, J. Ruiz-del-Solar, M. Köppen (eds.): *Soft Computing Systems - Design, Management and Applications*. IOS Press, Amsterdam, Berlin, 480-489
- Weber, R. (1999): Applications of Fuzzy Logic for Creditworthiness Evaluation. In: R. R. Ribeiro, H.-J. Zimmermann, R. R. Yager, and J. Kacprzyk (eds.): *Soft Computing in Financial Engineering*, Physica-Verlag, Heidelberg, 388-401
- Strackeljan, J., Weber, R. (1999): Quality Control and Maintenance. In: H.-J. Zimmermann (ed.): *Practical Applications of Fuzzy Technologies*, Vol. 7 of *The Handbooks of Fuzzy Sets Series*, D. Dubois, H. Prade (series editors), Kluwer Academic Publishers, Boston, London, Dordrecht, 161-184
- Werners, B., Weber, R. (1999): Decision and Planning in Research and Development. In: H.-J. Zimmermann (ed.): *Practical Applications of Fuzzy Technologies*, Vol. 7 of *The Handbooks of Fuzzy Sets Series*, D. Dubois, H. Prade (series editors), Kluwer Academic Publishers, Boston, London, Dordrecht, 445-478
- Angstenberger, J., Weber, R., (1999): Appendix A: Tools. In: Berthold, M., Hand, D. (eds.): *Intelligent Data Analysis*. Springer, 371 – 379
- Zimmermann, H.-J., Angstenberger, J., Weber, R. (1999): Intelligent Data Analysis and Fuzzy Control. In: H. B. Verbruggen, H.-J. Zimmermann, and R. Babuska (eds.): *Fuzzy Algorithms for Control*. Kluwer Academic Publishers, Boston, Dordrecht, London, 223-242
- Joentgen, A., Mikenina, L., Weber, R., Zimmermann, H.-J. (1998): Dynamic Data Analysis: Problem Description and Solution Approaches. In: W. Brauer (ed.): *Fuzzy-Neuro Systems '98 – Computational Intelligence*. Infix, Sankt Augustin, 282-289
- Joentgen, A., Mikenina, L., Weber, R., Zimmermann, H.-J. (1998): Dynamic Data Analysis: Similarity Between Trajectories. In: W. Brauer (ed.): *Fuzzy-Neuro Systems '98 – Computational Intelligence*. Infix, Sankt Augustin, 98-105
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