

Refereed Conference Papers (All):

1. E. Lughofer, R. Pollak, A.C. Zavoianu, P. Meyer-Heye, H. Zörrer, C. Eitzinger, J. Haim, T. Radauer, **Self-Adaptive Time-Series Based Forecast Models for Predicting Quality Criteria in Microfluidics Chip Production**, Proceedings of the [IEEE Cybernetics Conference 2017](#), Exeter, U.K., 2017, to appear.
2. R. Nikzad Langerodi, E. Lughofer, T. Reischer, W. Kantner, M. Pawliczek and M. Brandstetter, **Improved drift handling in melamine resin production by ensemble partial least squares and incremental Page-Hinkley testing**, Proceedings of the [EuroAnalysis 2017 Conference](#), Stockholm, Sweden, to appear.
3. E. Lughofer, M. Pratama and I. Skrjanc, **Incremental Rule Splitting in Generalized Evolving Fuzzy Regression Models**, Proceedings of the [IEEE Conference on Evolving and Adaptive Intelligent Systems 2017](#), Ljubljana, Slovenia, to appear.
4. W. Zellinger, E. Lughofer, S. Saminger-Platz, T. Grubinger and T. Natschläger. **Central Moment Discrepancy (CMD) for Domain-Invariant Representation Learning**. Proceedings of the 5th [International Conference on Learning Representations \(ICLR 2017\)](#), to appear, Toulon, France, 2017.
5. M. Pratama, P.P. Angelov, J. Lu, E. Lughofer, M. Seera and Chee Peng Lim. **A Randomized Neural Network for Data Streams**. Proceedings of the [International Joint Conference on Neural Networks \(IJCNN 2017\)](#), to appear, Anchorage, Alaska, U.S.A.
6. G. Andonovski, E. Lughofer and I. Skrjanc. **A Comparison of RECCO and FCPFC Controller on Nonlinear Chemical Reactor**. The 36th [IASTED International Conference on Modelling, Identification and Control](#), Innsbruck, Austria, 2017, to appear.
7. R. Nikzad-Langerodi, E. Lughofer, T. Zahel, P. Sagmeister, C. Herwig. **A novel framework for automated feed phase identification**. Proceedings of the 4th [European Conference on Process Analytics and Control Technology \(EuroPACT\) 2017](#), Potsdam, to appear.
8. A.C. Zavoianu, G. Bramerdorfer, E. Lughofer and S. Saminger-Platz, **Multi-Objective Topology Optimization of Electrical Machine Designs using Evolutionary Algorithms with Discrete and Real Encodings**, Proceedings of the [EuroCAST Conference 2017](#), Las Palmas de Gran Canaria, Spain, to appear
9. E. Lughofer, G. Kronberger, M. Kommenda, S. Saminger-Platz, A. Promberger, F. Nickel, S. Winkler and M. Affenzeller. **Robust Fuzzy Modeling and Symbolic Regression for Establishing Accurate and Interpretable Prediction Models in Supervising Tribological Systems**, Proceedings of the 8th International [Conference on Fuzzy Computation Theory and Applications \(FCTA\) 2016](#), pp. 51--63, 2016.
10. E. Weigl, A. Walch, U. Neissl, P. Meyer-Heye, W. Heidl, C. Eitzinger, T. Radauer and E. Lughofer. **MapView: Graphical Data Representation for Active Learning**, Proceedings of the [iKnow Conference 2016](#), Graz, Austria, 2016.
11. E. Lughofer, R. Richter, U. Neissl, W. Heidl, C. Eitzinger and T. Radauer, **Advanced Linguistic Explanations of Classifier Decisions for Users' Annotation Support**, Proceedings of the [IEEE Intelligent Systems Conference 2016](#), Sofia, Bulgaria, 2016, pp. 421—432
12. F. Serdio and E. Lughofer, **A Fault Detection and Isolation Framework for Repeatable and Comparable Experimentation**, Proceedings of the PHM Conference/Society, Bilbao, on-line

and in press, 2016

13. M. Pratama, E. Lughofer, M.J. Err, W. Rahayu and T. Dillon, **Evolving Type-2 Recurrent Fuzzy Neural Network**, Proceedings of the IJCNN 2016 conference (under the scope of the [WCCI 2016 conference](#)), Vancouver, Canada, 2016, to appear
14. C. Cernuda, E. Lughofer, T. Reischer, W. Kantner, M. Pawliczek and M. Brandstetter, **On-line Outlier/Redundancy Filtering and Semisupervised Incremental Calibration Modeling in Melamine Resin Production using FT-NIR Spectra**, Proceedings of the CAC Conference 2016, Barcelona
15. E. Lughofer, E. Weigl, W. Heidl, C. Eitzinger and T. Radauer, **Drift Detection in Data Stream Classification without Fully Labelled Instances**, Proceedings of the [Evolving and Adaptive Intelligent Systems Conference \(EAIS\) 2015](#), Douai, France, pp. 1-8, 2015
16. J. Liu, E. Lughofer, X. Zeng and L. Wang, **Affective Property Computation of Visual Texture**, Proceedings of the [10th International Conference on Intelligent Systems and Knowledge Engineering \(ISKE'15\)](#), pp. 52-57, Taiwan, November 2015
17. A.-C. Zavoianu, E. Lughofer, G. Bramerdorfer, W. Amrhein and S. Saminger-Platz, **A Surrogate-Based Strategy for Multi-Objective Tolerance Analysis in Electrical Machine Design**, Proceedings of the [17th International Symposium on Symbolic and Numeric Algorithms for Scientific Computing \(SYNASC\) 2015](#), Timisoara, 2015
18. C. Cernuda, E. Lughofer, T. Reischer, W. Kantner, M. Pawliczek and M. Brandstetter, **Dynamically Slided Chemometric Models for Robust On-line Prediction of Cloud Point in Melamine Resin Production**, Proceedings of the [Conferentia Chemometrica](#), Budapest, September 2015
19. C. Cernuda, E. Lughofer, H. Klein, C. Forster, M. Pawliczek and M. Brandstetter, **Quantification of quality parameters in unfermented beer using a flexible support vector regression variation**, Proceedings of the [SSC14 conference](#), 2015
20. E. Lughofer, **Efficient Sample Selection in Data Stream Regression using Evolving Generalized Fuzzy Models**, Proceedings of the [International FUZZ-IEEE Conference 2015](#), Istanbul, pp. 1-8, 2015
21. E. Lughofer, E. Weigl, W. Heidl, C. Eitzinger and T. Radauer, **Fast and Economic Integration of New Classes On the Fly in Evolving Fuzzy Classifiers using Class Decomposition**, Proceedings of the [International FUZZ-IEEE Conference 2015](#), Istanbul, pp. 1-8, 2015
22. G. Bramerdorfer, A.-C. Zavoianu, S. Silber, E. Lughofer, W. Amrhein, **Speed Improvements for the Optimization of Electrical Machines - a Survey**, Proceedings of the [2015 IEEE International Conference on Electric Machines Drives Conference \(IEMDC\)](#), Coeur d'Alene, Idaho, USA, 2015
23. E. Lughofer, E. Weigl, W. Heidl and T. Radauer, **Dynamic Inclusion of New Event Types in Visual Inspection using Evolving Classifiers**, Proceedings of the [International Conference on Machine Learning and Applications \(ICMLA 2014\)](#), pp. 487-494, Detroit, U.S.A., 2014
24. F. Serdio, C. Zavoianu, E. Lughofer, K. Pichler, T. Buchegger and H. Efendic, **Hybrid Genetic-Fuzzy Systems for Improved Performance in Residual-Based Fault Detection**, Proceedings of the 2014 Sixth [World Congress on Nature and Biologically Inspired Computing \(NaBIC\)](#), pp. 91-96, Porto, Portugal, 2014

25. F. Serdio, E. Lughofer, K. Pichler, T. Buchegger, M. Pichler and H. Efendic, **Reducing False Positives for Residual-Based On-line Fault Detection by Means of Adaptive Filters**, Proceedings of the [IEEE SMC 2014 Conference](#), San Diego, pp. 2803-2808, 2014
26. K. Pichler, M. Pichler, E. Lughofer, E.P. Klement, M.Huschenbett, T. Buchegger, **On the robustness of fault detection in reciprocating compressor valves**, Proceedings of the [IEEE SMC 2014 Conference](#), San Diego, pp. 2733-2738, 2014
27. F. Serdio, E. Lughofer, K. Pichler, T. Buchegger, M. Pichler and H. Efendic. **Gradient-based Fuzzy Fault Isolation in Residual-based Fault Detection Systems**. Proceedings of the [WCCI 2014 Conference](#), Beijing, China, pp. 1428-1435, 2014
28. M. Pratama, S.G. Anavatti, M.J. Er and E. Lughofer. **A Novel Meta-Cognitive-based Scaffolding Classifier to Sequential Non-stationary Classification Problems**. Proceedings of the [WCCI 2014 Conference](#), Beijing, China, pp. 369-376, 2014
29. C. Cernuda, E. Lughofer, P. Hintenaus, W. Märzinger and J. Kasberger. **Genetic Hybridization (Hybridgen): A Cooperative Coevolution Algorithm for Variable Selection**. Proceedings of the [CAC 2014 conference](#), Richmond, Virginia, 2014.
30. M. Pratama, S.G. Anavatti and E. Lughofer. **An Incremental Classifier from Data Streams**. in: A. Likas, K. Blekas, and D. Kalles (Eds.): SETN 2014, LNCS 8445, pp. 15--28, Springer International Publishing Switzerland, 2014.
31. C. Cernuda, E. Lughofer, P. Hintenaus, W. Märzinger, T. Reischer and J. Kasberger, **Fuzzy Finite State Machine for Multivariate Calibration. Application to Near-Infrared Spectroscopy**, Proceedings of the [EuroPACT conference](#), Barcelona, Spain, 2014.
32. E. Lughofer, C. Cernuda and M. Pratama, **Generalized Flexible Fuzzy Inference Systems from Data Streams**, Proceedings of the [International Conference on Machine Learning and Applications \(ICMLA 2013\)](#), pp 1-7, 2013
33. A.-C. Zavoianu, E. Lughofer, G. Bramerdorfer, W. Amrhein, and E.P. Klement, **Effective Ensemble-based Method for Creating On-the-Fly Surrogate Fitness Functions for Multi-Objective Evolutionary Algorithms**, Proceedings of the 5th [International Symposium on Symbolic and Numeric Algorithms for Scientific Computing](#) (SYNASC) 2013, pp. 235-242, Timisoara, Romania, 2013
34. A.-C. Zavoianu, E. Lughofer, W. Amrhein and E.P. Klement, **Efficient Multi-Objective Optimization using 2-Population Cooperative Coevolution**, Proceedings of the [EUROCAST 2013 Conference](#), LNCS vol. 8111, pp. 251-258, Las Palmas de Gran Canaria, Spain, 2013
35. C. Cernuda, E. Lughofer, G. Mayr, T. Röder, P. Hintenaus, W. Märzinger and J. Kasberger, **Decremental Active Learning for Optimized Self-Adaptive Calibration in Viscose Production**, Proceedings of the [SSC 2013 Conference](#), Stockholm, 2013
36. F. Serdio, E. Lughofer, K. Pichler, T. Buchegger, M. Pichler and H. Efendic, **Multivariate Fault Detection in the Residual Space using VARMA and Orthogonal Transformations**, [PHM 2013 Conference](#), pp. 548-555, New Orleans, 2013
37. C. Cernuda, E. Lughofer, P. Hintenaus, W. Märzinger, T. Reischer, M. Pawliczek, J. Kasberger, **Ensembled Self-Adaptive Fuzzy Calibration Models for On-line Cloud Point Prediction**, Proceedings of the [EUSFLAT 2013 conference](#), pp. 17-24, Milano, Italy, 2013

38. F. Serdio, E. Lughofer, K. Pichler, T. Buchegger and H. Efendic, **Data-Driven Residual-Based Fault Detection for Condition Monitoring in Rolling Mills**, Proceedings of the [IFAC Conference on Manufacturing Modeling, Management and Control \(MIM\) 2013](#), St. Petersburg, 2013, pp. 1546-1551. **(awarded as best paper)**
39. K. Pichler, E. Lughofer, M. Pichler, T. Buchegger, E.P. Klement, M. Huschenbett, **Detecting broken Reciprocating Compressor Valves in the pV-diagram**, Proceedings of the 2013 IEEE/ASME International Conference on Advanced Intelligent Mechatronics, 2013
40. M. Pratama, S. Anavatti and E. Lughofer, **Evolving Fuzzy Rule-Based Classifier Based on GENEFIS**, Proceedings of the [FUZZ-IEEE 2013 Conference](#), Hyderabad, India, 2013, pp.1-8
41. C. Zavoianu, E. Lughofer, W. Koppelstaetter, G. Weidenholzer, W. Amrhein, E.P. Klement, **On the Performance of Master-Slave Parallelization Methods for Multi-Objective Evolutionary Algorithms**, [Proceedings of the ICAISC 2013 conference](#), Zakopane, Poland, pp. 122-134
42. A. Shaker and E. Lughofer, **Resolving Global and Local Drifts in Data Stream Regression using Evolving Rule-Based Models**, 2013 IEEE Conference on Evolving and Adaptive Intelligent Systems (EAIS) ([under the scope of IEEE SSCI 2013 Conference](#)), Singapore, pp. 9-16, 2013
43. M. Pratama, S. Anavatti, M. Garret and E. Lughofer, **Online Identification of Complex Multi-Input-Multi-Output System Based on Generic Evolving Neuro-Fuzzy Inference System**, Proceedings of the IEEE EAIS 2013 workshop (SSCI 2013 conference), pp. 106-113, Singapore, 2013
44. E. Lughofer, **eVQ-AM: An Extended Dynamic Version of Evolving Vector Quantization**, Proceedings of the 2013 IEEE Conference on Evolving and Adaptive Intelligent Systems (EAIS), pp. 40-47, Singapore, 2013
45. C. Zavoianu, G. Bramerdorfer, E. Lughofer, W. Amrhein and E.P. Klement, **A Hybrid Soft Computing Approach for Optimizing Design Parameters of Electrical Drives**, in: Soft Computing Models in Industrial and Environmental Applications (Proceedings of the SOCO 2012 Conference), LNAI vol. 181, pp. 347-358, Springer, Berlin Heidelberg, 2012
46. G. Mayr, L. Suppan, F. Zeppetzauer, C. Cernuda, E. Lughofer, H. Trinker, P. Hintenaus, W. Märzinger and T. Roder. **Scope and limitations of spectroscopic methods for on- and in-line analysis at the viscose production**. Proceedings of the 245th ACS National Meeting}, New Orleans, U.S.A., 2013.
47. C. Cernuda, E. Lughofer, W. Märzinger and W. Summerer. **Hybrid evolutionary particle swarm optimization and ant colony optimization for variable selection. Application to near infrared spectroscopy**. Proceedings of the 3rd World Conference on Information Technology 2012, AWERProcedia Information Technology & Computer Science, Vol. 4, pp. 6--13, Barcelona, Spain, 2012.
48. E. Lughofer, **Navigating Interpretability Issues in Evolving Fuzzy Systems**, Proceedings of the Sixth International Conference on Scalable Uncertainty Management 2012, LNAI, vol. 7520, Springer, Marburg, Germany, 2012, pp. 141-153
49. K. Pichler, E. Lughofer, T. Buchegger, E.P. Klement, M. Huschenbett. **A Visual Method to Detect Broken Reciprocating Compressor Valves Under Varying Load Conditions**. Proceedings of the 13th Mechatronics Forum International Conference, 2012.
50. K. Pichler, E. Lughofer, T. Buchegger, E.P. Klement, M. Huschenbett. **Detecting Cracks in Reciprocating Compressor Valves using Pattern Recognition in Frequency Space**. Proceedings of the ASME 2012 Conference on Smart Materials, Adaptive Structures and Intelligent Systems, SMASIS2012, Stone Mountain, Georgia, USA, 2012, pp. 749--756.

51. C. Cernuda, E. Lughofer, W. Märzinger, W. Summerer. **Waveband Selection in NIR Spectra using Enhanced Genetic Operators**. Proceedings of the CAC 2012 conference, Budapest, 2012, pp. 37.
52. C. Cernuda, E. Lughofer, L. Suppan, T. Röder, R. Schmuck, P. Hintenaus, W. Märzinger, J. Kasberger. **Dynamic Quantification of Process Parameters in Viscose Production with Evolving Fuzzy Systems**. Proceedings of the IPMU 2012, Advances on Computational Intelligence, CCIS, vol. 297, Springer, pp. 1-10, 2012.
53. E. Lughofer, **On-line active learning based on enhanced reliability concepts**, Proceedings of the IEEE Conference on Evolving and Adaptive Intelligent Systems (EAIS) 2012, pp. 1-6, IEEE, Madrid, Spain, 2012
54. E. Lughofer, **Dynamic Evolving Cluster Models Using On-line Split-and-Merge Operations**, Proc. of the 10th International Conference in Machine Learning and Applications (ICMLA) 2011, pp. 20-26, Honolulu, Hawaii, 2011
55. M. Nasiri, E. Hüllermeier, R. Senge and E. Lughofer, **Comparing Methods for Knowledge-Driven and Data-Driven Fuzzy Modeling: A Case Study in Textile Industry**, Proceedings of the IFSA World Congress 2011, Surabaya and Bali Island, Indonesia, 2011
56. B. Trawinski, K. Trawinski, E. Lughofer and T. Lasota, **Investigation of Evolving Fuzzy Systems Methods FLEXFIS and eTS on Predicting Residential Prices**, Proceedings of the 9th International Workshop on Fuzzy Logic and Applications (WILF) 2011, pp. 123-130, Trani, Italy, 2011
57. E. Lughofer, B. Trawinski, K. Trawinski and T. Lasota, **On-line Valuation of Residential Premises with Evolving Fuzzy Models**, Proceedings of the Hybrid Artificial Intelligent Systems (HAIS) Conference 2011, pp. 107-115, Wroclaw, Poland, 2011
58. E. Lughofer and E. Hüllermeier, **On-line Redundancy Elimination in Evolving Fuzzy Regression Models using a Fuzzy Inclusion Measure**, Proceedings of the EUSFLAT 2011 Conference, pp. 380-387, Aix-Les-Bains, France, 2011
59. E. Lughofer, **All-Pairs Evolving Fuzzy Classifiers for On-line Multi-Class Classification Problems**, Proceedings of the EUSFLAT 2011 Conference, pp. 372--379, Aix-Les-Bains, France, 2011
60. W. Heidl, S. Thumfart, E. Lughofer, C. Eitzinger and E.P. Klement, **Decision Tree-based Analysis Suggests Structural Gender Differences in Visual Inspection**, Proceedings of AIA2011, IASTED International Conference on Artificial Intelligence and Applications, pp. 142-149, Innsbruck, Austria, 2011
61. E. Lughofer, **On Dynamic Selection of the Most Informative Samples in Classification Problems**, Proc. of the 9th International Conference in Machine Learning and Applications (ICMLA) 2010, pp. 573-579, Washington D.C., 2010
62. W. Heidl, S. Thumfart, E. Lughofer, C. Eitzinger, E.P. Klement. **Classifier-Based Analysis of Visual Inspection: Gender Differences in Decision-Making**, Proceedings of IEEE Conference on Systems, Man and Cybernetics, SMC 2010}, pp. 113--120, Istanbul, 2010.
63. E. Lughofer, V. Macian, C. Guardiola and E.P. Klement, **Data-Driven Design of Takagi-Sugeno Fuzzy Systems for Predicting NOx Emissions**, E. Hüllermeier and R. Kruse and F. Hoffmann, Proc. of the 13th International Conference on Information Processing and Management of Uncertainty, IPMU 2010, Part II (Applications), CCIS, vol. 81, Springer, 1-10, Dortmund, Germany, 2010

64. E. Lughofer, **On Dynamic Soft Dimension Reduction in Evolving Fuzzy Classifiers**, E. Hüllermeier and R. Kruse and F. Hoffmann, Proc. of the 13th International Conference on Information Processing and Management of Uncertainty (IPMU) 2010, LNAI, vol. 6178, Springer, pp. 79-88, Dortmund, Germany, 2010
65. D. Sannen, E. Lughofer and H. Van Brussel, **Increasing On-line Classification Performance Using Incremental Classifier Fusion**, pp. 101—107, Proc. of International Conference on Adaptive and Intelligent Systems (ICAIS'09), Klagenfurt, Austria, 2009
66. E. Lughofer and P. Angelov, **Detecting and Reacting on Drifts and Shifts in On-Line Data Streams with Evolving Fuzzy Systems**, Proceedings of the IFSA/EUSFLAT 2009 conference, Lisbon, Portugal, pp. 931--937, 2009
67. E. Lughofer and S. Kindermann, **Rule Weight Optimization and Feature Selection in Fuzzy Systems with Sparsity Constraints**, Proceedings of the IFSA/EUSFLAT 2009 conference, Lisbon, Portugal, pp. 950--956, 2009
68. H. Schoener, B. Moser and E. Lughofer, **On Preprocessing Multi-Channel Data for Online Process Monitoring**, Proc. of the Conference on Computational Intelligence for Modelling, Control and Automation (CIMCA 2008), Vienna, Austria, pp. 414--420, 2008
69. E. Lughofer, J. E. Smith, M. A. Tahir, P. Caleb-Solly, C. Eitzinger, D. Sannen and H. van Brussel, **On Human-Machine Interaction During On-Line Image Classifier Training**, Proc. of the Conference on Computational Intelligence for Modelling, Control and Automation (CIMCA 2008), Vienna, Austria, 2008, pp. 995—1001
70. E. Lughofer, **Evolving Vector Quantization for Classification of On-Line Data Streams**, Proc. of the Conference on Computational Intelligence for Modelling, Control and Automation (CIMCA 2008), Vienna, Austria, pp. 780--786, 2008
71. E. Lughofer and S. Kindermann, **Improving the Robustness of Data-Driven Fuzzy Systems with Regularization**, Proc. of the IEEE World Congress on Computational Intelligence (WCCI) 2008, Hongkong, pp. 703--709, 2008
72. C. Eitzinger, M. Gmainer, W. Heidl and E. Lughofer, **Increasing Classification Performance with Adaptive Features**, A. Gasteratos and M. Vincze and J.K. Tsotsos, Proceedings of ICVS 2008, LNCS, vol. 5008, Springer, pp. 445--453, Santorini Island, Greece, 2008
73. D. Sannen, M. Nuttin, J.E. Smith, M.A. Tahir, E. Lughofer and C. Eitzinger, **An Interactive Self-Adaptive On-Line Image Classification Framework**, A. Gasteratos and M. Vincze and J.K. Tsotsos, Proceedings of ICVS 2008, LNCS, vol. 5008, Springer, pp. 173--180, Santorini Island, Greece, 2008
74. E. Lughofer and C. Guardiola, **Applying Evolving Fuzzy Models with Adaptive Local Error Bars to On-Line Fault Detection**, Proceedings of Genetic and Evolving Fuzzy Systems 2008, Witten-Bommerholz, Germany, pp. 35--40, 2008
75. E. Lughofer, P. Angelov and X. Zhou, **Evolving Single- and Multi-Model Fuzzy Classifiers with FLEXFIS-Class**, Proceedings of FUZZ-IEEE 2007, London, UK, pp. 363--368, 2007
76. P. Angelov, X. Zhou, D. Filev and E. Lughofer, **Architectures for Evolving Fuzzy Rule-based Classifiers**, Proceedings of SMC 2007, Montreal, Canada, pp. 2050--2055, 2007

77. J. Botzheim, E. Lughofer, E.P. Klement, L. K{oczy and T.D. Gedeon, **Separated Antecedent and Consequent Learning for Takagi-Sugeno Fuzzy Systems**, Proceedings of FUZZ-IEEE 2006, Vancouver, Canada, pp. 2263--2269, 2006
78. E. Lughofer, **Process Safety Enhancements for Data-Driven Evolving Fuzzy Models**, Proceedings of 2nd Symposium on Evolving Fuzzy Systems (EFS '06), Lake District, UK, pp. 42--48, 2006 (awarded as best paper)
79. E. Lughofer and U. Bodenhofer, **Incremental Learning of Fuzzy Basis Function Networks with a Modified Version of Vector Quantization**, Proceedings of IPMU 2006, volume 1, Paris, France, pp. 56--63, 2006
80. E. Lughofer and E.P. Klement, **FLEXFIS: A Variant for Incremental Learning of Takagi-Sugeno Fuzzy Systems**, Proceedings of FUZZ-IEEE 2005, Reno, Nevada, U.S.A., 915--920, 2005
81. E. Lughofer, E. Hüllermeier and E.P. Klement, **Improving the Interpretability of Data-Driven Evolving Fuzzy Systems**, Proceedings of EUSFLAT 2005, Barcelona, Spain, pp. 28--33, 2005
82. P. Angelov and E. Lughofer and E.P. Klement, **Two Approaches to Data-Driven Design of Evolving Fuzzy Systems: eTS and FLEXFIS**, Proceedings of NAFIPS 2005, Ann Arbor, Michigan, U.S.A., 2005, pp. 31--35
83. E. Lughofer and E.P. Klement, **Premise Parameter Estimation and Adaptation in Fuzzy Systems with Open-Loop Clustering Methods**, Proceedings of FUZZ-IEEE 2004, Budapest, Hungary, 2004
84. W. Groissböck, E. Lughofer, and E.P. Klement. **A comparison of variable selection methods with the main focus on orthogonalization**. In M. Lopez-Diaz, M.A. Gil, P. Grzegorzewski, O. Hryniewicz, J. Lawry (Eds.), *Soft Methodology and Random Information Systems, Advances in Soft Computing*, Springer, Berlin, Heidelberg, New York, pp. 479--486, 2004.
85. J. Galindo, C. Guardiola, J.M. Lujan, E. Lughofer and E.P. Klement, **Fault Detection in Engine Measurement Systems by a Model-Based Approach**, Proceedings SAE 2004, 2004
86. E. Lughofer, E.P. Klement, J.M. Lujan and C. Guardiola, **Model-Based Fault Detection in Multi-Sensor Measurement Systems**, Proceedings of IEEE IS 2004, pp. 184--189, Varna, Bulgaria, 2004
87. E. Lughofer and E.P. Klement, **Online adaptation of Takagi-Sugeno fuzzy inference systems**, Proceedings of CESA---IMACS Multiconference, Lille, France, 2003
88. E. Lughofer and H. Efendic and L. Del Re and E.P. Klement, **Filtering of Dynamic Measurements in Intelligent Sensors for Fault Detection based on Data-Driven Models**, Proceedings of the IEEE CDC Conference, pp. 463--468, Maui, Hawaii, 2003
89. A. Schrempf, L. Del Re, W. Groissböck, E. Lughofer, E.P. Klement, and G. Frizberg. **Automatic engine modelling for failure detection**. In: Proc. 2001 ASME International Mechanical Engineering Congress and Exposition, 2001