

LIST OF PUBLICATIONS

1985 – 2010

Janos Gertler

Legend

- B Book
- J Journal article
- C Book chapter
- P Plenary conference paper
- Blank Conference paper, research report

83. Gertler, J.: Fault Detection and Isolation in Complex Technical Systems – A New Model Error Approach. Conf. on Information Sciences and Systems, Johns Hopkins University, Baltimore, MD, 1985.
84. Gertler, J. and Singer, D.: Augmented Models for Statistical Fault Isolation in Complex Dynamic Systems. American Control Conference, Boston, MA, 1985. Proceedings, Vol. 1, pp. 317-322.
85. Gertler, J., Singer, D. and Sundar, A.: A Robustified Linear Fault Isolation Technique for Complex Dynamic Systems. IFAC/IFIP Conference on Digital Computer Applications to Process Control, Vienna, Austria, 1985. Preprints pp. 493-498.
86. Liu, K. and Gertler, J.: Investigations into the Robustness of Self-Tuning Controllers. 23rd Allerton Conference, Monticello, IL, 1985.
- 87-J. Gertler, J. and Chang, H. S.: An Instability Indicator for Expert Control. *IEEE Control Systems Magazine*, Vol. 6, pp. 14-17 (1986).
- 88-P. Gertler, J.: Failure Detection in Complex Systems. Plenary survey paper. IFAC Symposium on Microprocessor Applications in Process Control, Istanbul, Turkey, 1986. Proceedings pp. 13-23 (1988).
89. Gertler, J.: A Numerical-Structural Approach to Failure Detection and Isolation in Complex Plants. IEEE Conference on Decision and Control, Athens, Greece, 1986. Proceedings pp. 1576-1580.
90. Liu, K. and Gertler, J.: An Intelligent Adaptive Scheme for Biomedical Control. IEEE Symposium on Intelligent Control Systems, Philadelphia, PA, 1987. Proceedings pp. 377-382.
91. Liu, K. and Gertler, J.: A Supervisory (Expert) Adaptive Control Scheme. IFAC World Congress, Munich, Germany, 1987. Proceedings Vol. 6, pp. 381-386 (1988).
92. Katona, P.; Chizeck, H. and Gertler, J.: Automated Control of Drug Infusion. IFAC World Congress, Munich, Germany, 1987. Proceedings Vol.5, pp. 57-60 (1988).
93. Liu, K. and Gertler, J.: Stabilization of Adaptive Control by Detuning in a Supervisory Framework. American Control Conference, Minneapolis, MI, 1987. Proceedings pp. 184-200.
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- 95-J. Gertler, J.: A Survey of Model Based Failure Detection and Isolation in Complex Plants. *IEEE Control Systems Magazine*, Vol. 8, No.6, pp. 3-11 (1988).
- 96-C. Gertler, J.: Intelligent Supervisory Control. Chapter in the *Artificial Intelligence Handbook* (Editors E. Nisenfeld and J. Davis), Vol. 2, pp. 333-365. Instrument Society of America, 1989.
97. Gertler, J. and Luo, G.: Robust Isolable Models for Fault Diagnosis. Invited paper, AIChE Spring National Meeting, Houston, TX, 1989.
98. Gertler, J., Bennani, A. and Phillips, T.: A Parallel Implementation of Model Based On-Line Failure Detection and Isolation. Invited paper, American Control Conference, Pittsburgh, PA, 1989. Proceedings Vol. 3, pp. 2727-2731.
99. Gertler, J. and Anderson, K.: An Evidential Reasoning Extension to Model-Based Failure Detection and Diagnosis. IEEE Symposium on Intelligent Control Systems, Albany, NY, 1989. Proc. pp. 520-525.
- 100-J. Gertler, J. and Luo, Q.: Robust Isolable Models for Failure Diagnosis. *AIChE Journal*, Vol. 35, pp. 1856-1868 (1989).
- 101-J. Gertler, J. and Singer, D.: A New Structural Framework for Parity Equation Based Failure Detection and Isolation. *Automatica*, Vol. 26, pp. 381-388 (1990).
- 102-C. Gertler, J. with Fang, X-W. and Luo, Q.: Detection and Diagnosis of Plant Failures - The Orthogonal Parity Equation Approach. In *Advances in Control and Dynamic Systems*, (Ed. C.T. Leondes), Vol. 37, pp. 159-216, Academic Press, 1990.
103. Gertler, J., Luo, Q., Anderson, K. C. and Fang, X-W.: Diagnosis of Plant Failures Using Orthogonal Parity Equations. IFAC 11 th World Congress (Tallinn, Estonia, USSR, 1990), Vol. 4, pp. 361-366.
- 104-P. Gertler, J.: A Survey of Analytical Redundancy Methods in Failure Detection and Isolation. Invited plenary paper, Preprints of IFAC Conference on Fault Detection, Supervision and Safety (Baden-Baden, Germany, 1991), pp. 9-22.
105. Gertler, J., Costin, M., Luo, Q., Fang, X. W., Hira, R. and Kowalczyk, Z. : On-Board Fault Detection and Isolation for Automotive Engines Using Orthogonal Parity Equations. Invited paper. Preprints of IFAC Conference on Fault Detection, Supervision and Safety (Baden-Baden, Germany, 1991), pp. Vol. 2, pp. 241-246.
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- 108-J. Gertler, J. and Anderson, K. C.: An Evidential Reasoning Extension to Quantitative Model-Based Failure Diagnosis. *IEEE Transactions on Systems, Man and Cybernetics*, Vol. 22, pp. 275-289 (March 1992).
- 109-P. Gertler, J.: Structured Residuals for Fault Isolation, Disturbance Decoupling and Modeling Error Robustness. "Lead paper". Preprints of IFAC Symposium on On-Line Fault Detection and Supervision (Newark, DE, April 1992), pp. 111-119.

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- 113-J. Gertler, J.: Residual Generation in Model Based Fault Diagnosis. *Control- Theory and Advanced Technology*, Vol. 9, pp. 259-285 (March 1993).
- 114-P. Gertler, J. and Kunwer, M.: Optimal Residual Decoupling for Structured Diagnosis and Disturbance Insensitivity. Plenary Paper, *Proc. TOOLDIAG Symp.* (Toulouse, France, April 1993), pp. 436-452.
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- 117-P. Gertler, J. and Costin, M.: Model-Based Diagnosis of Automotive Engines – Case Study on a Physical Vehicle. Proc. IFAC SAFEPROCESS Symp. (Helsinki, Finland, June 1994), pp. 393-402.
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- 126-P. Gertler, J.: Towards a Theory of Dynamic Consistency Relations. Plenary paper. Preprints of IFAC Workshop on On-Line Fault Detection and Supervision in the Chemical Process Industries (Newcastle, UK, June 1995), pp. 143-156.
127. Yin, K. and Gertler, J.: Fault Detection and Isolation in the Directional Residual Approach. Preprints of IFAC Workshop on On-Line Fault Detection and Supervision in the Chemical Process Industries (Newcastle, England, June 1995), pp. 194-199.
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137. Gertler, J.: A Cautious Look at Robustness in Residual Generation. Invited paper. Preprints of IFAC SAFE PROCESS Symposium (Hull, UK, August 1997), Vol. 1, pp. 133-139.
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