

Hangos Katalin

Publikációs lista

(2009)

Könyvek

1. Hangos, K.M., Bokor, J., Szederkényi, G.: *Analysis and Control of Nonlinear Process Systems*. Ed.: Springer-Verlag, London, 308p ISBN 1-85233-600-5 (2004)
2. Hangos, K.M., Lakner, R., Gerzson, M.: *Intelligent Control Systems: An Introduction with Examples*. Ed: Kluwer Academic Publisher, pp. 1-301 ISBN 1-4020-0134-7 (2001)
3. Hangos, K.M., Cameron, I.T.: *Process modelling and model analysis*. Ed: Academic Press, London, UK., pp. 1-543 ISBN 0-12-156931-4 (2001)

Referált nemzetközi folyóiratokban megjelent közlemények

1. Németh E, Bartha T, Fazekas Cs, Hangos K M: Verification of a primary-to-secondary leaking safety procedure in a nuclear power plant using coloured Petri nets. *Reliability Engineering and System Safety*, **94**:(5) 942-953 (2009)
2. Hangos K M, Tuza Zs, Yeo A: Some complexity problems on single input double output controllers *Discrete Applied Mathematics*, **157**: 1146-1158 (2009)
3. Fazekas, C.; Szederkényi, G. Hangos, K.M.: Parameter estimation of a simple primary circuit model of a VVER plant, *IEEE Transactions on Nuclear Science* **55**(5), 2643-2653 (2008)
4. Pongrácz, B.; Ailer, P.; Hangos, K.M. Szederkényi, G: Nonlinear reference tracking control of a gas turbine with load torque estimation, *International Journal of Adaptive Control and Signal Processing* **22**, 757-773 (2008)
5. Magyar, A.; Szederkényi, G., Hangos, K.M.: Globally stabilizing feedback control of process systems in generalized Lotka-Volterra form, *Journal of Process Control* **18**, 80-91 (2008)
6. Csercsik, D.; Hangos, K.M., Nagy, G.: A simple reaction kinetic model of rapid (G protein dependent) and slow (b-Arrestin dependent) transmission, *Journal of Theoretical Biology* **255**, 119-128 (2008)
7. Otero-Muras, I.; Szederkényi, G.; Hangos, K.M., Alonso, A. A.: Dynamic analysis and control of biochemical reaction networks, *Mathematics and Computers in Simulation* **79**(4), 999-1009 (2008)
8. Otero-Muras, I.; Szederkényi, G.; Alonso, A.A., Hangos, K.M. : Local dissipative Hamiltonian description of reversible reaction networks', *Systems and Control Letters* **57**, 554-560 (2008)
9. Fazekas, Cs. Szederkényi, G., Hangos, K.M.: A simple dynamic model of the primary circuit in VVER plants for controller design purposes. *Nuclear Engineering and Design*, **237**: pp. 1071-1087 (2007)
10. Németh, E., Lakner, R., Hangos, K.M., Cameron, I.T.: Prediction-based diagnosis and loss prevention using qualitative multi-scale models. *Information Sciences*, **177**: pp. 1916-1930 (2007)
11. Petz, D., Hangos, K.M., Magyar, A.: Point estimation of states of finite quantum systems. *Journal of Physics A: Mathematical and Theoretical*, **40**: pp. 7955-7969 (2007)
12. Fazekas, Cs., Kozmann, Gy., Hangos K.M.: Multi-scale Modeling and Time-Scale Analysis of a Human Limb. *SIAM Journal, Multiscale Modeling and Simulation*, **6**: pp. 761-791 (2007)
13. Petz, D., Hangos, K.M., Szántó, A., Szöllösi, F.: State tomography for two qubits using reduced densities. *Journal of Physics A: Mathematical and General*, **39**: pp. 10901-10907 (2006)
14. Pongrácz, B., Szederkényi, G., Hangos, K.M.: An algorithm for determining a class of invariants in quasi-polynomial systems. *Computer Physics Communications*, **175**: pp. 204-211 (2006)
15. Leitold, A., Hangos, K.M.: Numerical Method-Independent Structural Solvability Analysis of Dae Models. *Hungarian Journal of Industrial Chemistry Veszprém*, **33** (1-2): pp. 11-21 (2005)

16. Németh, E., Cameron, I.T., Hangos, K.M.: Diagnostic goal driven modelling and simulation of multiscale process systems. *Computers and Chemical Engineering*, **29**: pp. 783-796 (2005)
17. Németh, H., Palkovics, L., Hangos, K.M.: Unified model simplification procedure applied to a single protection valve. *Control Engineering Practice*, **13** (3): pp. 315-326 (2005)
18. Lakner, R., Hangos, K.M., Cameron, I.T.: On minimal models of process systems. *Chemical Engineering Science*, **60** (4): pp. 1127-1142 (2005)
19. Szederkényi, G., Hangos, K.M., Magyar, A.: On the time-reparametrization of quasi-polynomial systems. *Physics Letters A*, **334** (4): pp. 288-294 (2005)
20. Ingram, G.D., Cameron, I.T., Hangos, K.M.: Classification and analysis of integrating frameworks in multiscale modelling. *Chemical Engineering Science*, **59** (11): pp. 2171-2187 (2004)
21. Hangos, K.M., Szederkényi, G.: Process systems: theory and applications from different aspects. *ERCIM News*, January, **56**: pp. 35-36 (2004)
22. Szederkényi, G., Hangos, K.M.: Global stability and quadratic Hamiltonian structure in Lotka-Volterra and quasi-polynomial systems. *Physics Letters A*, **324**: pp. 437-445 (2004)
23. Hangos, K.M., Szederkényi, G., Tuza, Zs.: The effect of model simplification assumptions on the differential index of lumped process models. *Computers and Chemical Engineering*, **28**: pp. 129-137 (2004)
24. Szederkényi, G., Kristensen, N.R., Hangos, K.M., Jørgensen, S.B.: Nonlinear analysis and control of a continuous fermentation process. *Computers and Chemical Engineering*, **26** (4-5): pp. 659-670 (2002)
25. Szederkényi, G., Kovács, M., Hangos, K.M.: Reachability of nonlinear fed-batch fermentation processes. *International Journal of Robust and Nonlinear Control*, **12**: pp. 1109-1124 (DOI: 10.1002/rnc.686) (2002)
26. Leitold, A., Hangos, K.M., Tuza, Zs.: Structure simplification of dynamic process models. *Journal of Process Control*, **12**: pp. 69-83 (2002)
27. Leitold, A., Hangos, K.M.: Structural Solvability Analysis of Dynamic Process Models. *Computers and Chemical Engineering*, **25**: pp. 1633-1646 (2001)
28. Hangos, K.M., Tuza, Zs.: Optimal control structure selection for process systems. *Computers and Chemical Engineering*, **25**: pp. 1521-1536 (2001)
29. Hangos, K.M., Cameron, I.T.: A formal representation of assumptions in process modelling. *Computers and Chemical Engineering*, **25**: pp. 237-255 (2001)
30. Hangos, K.M., Bokor, J., Szederkényi, G.: Hamiltonian view of process systems. *AIChE Journal*, **47** (8): pp. 1819-1831 (2001)
31. Weyer, E., Szederkényi, G., Hangos, K.M.: Grey box fault detection of heat exchangers. *Control Engineering Practice*, **8**: pp. 121-131 (2000)
32. Lakner, R., Cameron, I.T., Hangos, K.M.: An assumption – driven case- specific model editor. *Computers and Chemical Engineering*, **23** (Suppl): pp. S695-S698 (1999)
33. Hangos, K.M., Tuza, Zs.: Process model structure simplification. *Computers and Chemical Engineering*, **23** (Suppl): pp. S343-S346 (1999)
34. Hangos, K.M., Alonso, A.A., Perkins, J.D., Ydstie, B.E.: Thermodynamic approach to the structural stability of process plants. *AIChE Journal*, **45** (4): pp. 802-816 (1999)
35. Szücs, A., Gerzson, M., Hangos, K.M.: An intelligent diagnostic system based on Petri nets. *Computers and Chemical Engineering*, **22** (9): pp. 1335-1344 (1998)
36. Kránicz, B., Gerzson, M., Hangos, K.M.: Invariant inheritance in structured operating procedures described by Petri nets. *Computers and Chemical Engineering*, **22** (Suppl): S969-S972 (1998)
37. Kovács, G., Hangos, K.M.: Notes on μ and l_1 robustness tests. *Kibernetika*, **34** (5): pp. 565-578 (1998)

38. Gál, I.P., Varga, J., Hangos, K.M.: Integrated structure design of a process and its control system. *Journal of Process Control*, **8** (4): 251-263 (1998)
39. Hangos, K.M., Perkins, J.D.: On structural stability of chemical process plants. *AIChE Journal*, **43**: pp. 1511-1518 (1997)
40. Szücs, A., Gerzson, M., Hangos, K.M.: An intelligent diagnostic system based on Petri nets. *Computers and Chemical Engineering*, **20** (Suppl): pp. S635-S640 (1996)
41. Varga, E.I, Hangos, K.M., Szigeti, F.: Controllability and observability of heat exchanger networks in the time-varying parameter case. *Control Engineering Practice*, **3** (10): pp. 1409-1419 (1995)
42. Jørgensen, S.B., Hangos, K.M.: Grey-box modeling for control: Qualitative models as unifying framework. *Journal of Adaptive Control and Signal Processing*, **9**: pp. 547-562 (1995)
43. Hangos, K.M., Varga, E.I.: Note on the effect of recycle on the dynamics of chemical process plants. *Computers and Chemical Engineering*, **19**: pp. 607-610 (1995)
44. Gerzson, M., Hangos, K.M.: Analysis of controlled technological systems using high level Petri nets. In: *Proceedings of the ESCAPE'95 Conference*, Bled, Slovenia, *Computers and Chemical Engineering*, **19** (Suppl): pp. S531-S536 (1995)
45. Varga, E.I., Hangos, K.M.: The effect of the heat exchanger network topology on the network control properties. *Control Engineering Practice*, **1** (2): pp. 375-380 (1993)
46. Gerzson, M., Csáki, Zs., Hangos, K.M.: Qualitative model based verification of operating procedures by high level Petri nets. In: *ESCAPE-3. European symposium on computer aided process engineering-3*. Graz, (Eds. F. Moser, H. Schnitzer, H. J. Bart.) *Computers and Chemical Engineering*, **18** (Suppl.): pp. S565-S569 (1993)
47. Németh, T., Varga, E.I., Hangos, K.M., Jørgensen, S.B.: A tool for development of qualitative and approximate quantitative process models. *Computers and Chemical Engineering*, **16** (Suppl): pp. S491-S498 (1992)
48. Hangos, K.M., Csáki, Zs., Jørgensen, S.B.: Qualitative model-based intelligent control of a distillation column. *Engineering Applications of Artificial Intelligence*, **5** (5): pp. 431-440 (1992)
49. Hangos, K.M., Csáki, Zs.: Qualitative simulation in the limit. *Artificial Intelligence in Engineering*, **7** (2): pp. 105-109 (1992)
50. Hangos, K.M., Leisztner, L., Kárny, M.: Calibration and measurement control based on Bayes statistics. *Journal of Automatic Chemistry*, **11**: pp. 149-155 (1989)
51. Hangos, K.M., Leisztner, L.: Towards properly controlled analytical measurement methods. *Journal of Automatic Chemistry*, **11** (2): pp. 76-79 (1989)
52. Kárny, M., Hangos, K.M.: Decision-theoretical formulation of the calibration problem. *Journal of Automatic Chemistry*, **11** (2): pp. 70-75 (1989)
53. Kárny, M., Hangos, K.M.: One-sided approximation of Bayes rule and its application to regression model with Cauchy noise. *Kybernetika*, **24**: pp. 321-339 (1988)
54. Hangos, K.M., Tóth, J.: Maximum likelihood estimation of reaction-rate constants. *Computers and Chemical Engineering*, **12** (2/3): pp. 135-139 (1988)
55. Halász, G., Tóth, J., Hangos, K.M.: Energy-optimal operation conditions of a tunnel kiln. *Computers and Chemical Engineering*, **12** (2/3): pp. 183-187 (1988)
56. Nagy, J.L., Leisztner, L., Hangos, K.M.: Investigation of the steady state measurement process. *Journal of Automatic Chemistry*, **10** (2): pp. 101-105 (1988)
57. Hangos, K.M., Leisztner, L.: The systematic error caused by random errors through data reduction. *Journal of Automatic Chemistry*, **9** (1): pp. 25-29 (1987)
58. Hangos, K.M., Nagy, J.L., Leisztner, L.: Automatic detection of the autocorrelation-type measurement error component. *Journal of Automatic Chemistry*, **8**: pp. 23-27 (1986)

59. Hangos, K.M.: Chemical noise and measurement error processes. Continuous and discrete time models. *Chemical Engineering Science*, **39**: pp. 1225-1231 (1984)
60. Hangos, K.M.: Sensitivity of discrete linear stochastic systems with respect to parameter variations of their discrete linear regulators. *Problems of Control and Inf. Theory*, **11**: pp. 167-177 (1982)
61. Hangos, K.M.: On the ARMAX-type system properties affecting the quality of control by discrete time-invariant minimum variance regulators. *Problems of Control and Inf. Theory*, **11**: pp. 67-76 (1982)

Magyarországon kiadott folyóiratokban megjelent közlemények

1. Németh, H., Palkovics, L., Hangos, K.M.: Feedforward bang-bang control design for electro-pneumatic protection valves. *Periodica Polytechnica, Series of Transportation Engineering*, **32**: pp. 1-18 (2004)
2. Németh, H., Ailer, P., Hangos, K.M.: Nonlinear modelling and model verification of a single protection valve. *Periodica Polytechnica, Series of Transportation Engineering*, **30** (1-2): pp. 69-92 (2002)
3. Leitold, A., Hangos, K.M.: Effect of steady state assumption on the structural solvability of dynamic process models. *Hungarian Journal of Industrial Chemistry*, **30**: pp. 61-71 (2002)
4. Ailer, P., Sánta, I., Szederkényi, G., Hangos, K.M.: Nonlinear model-building of a low-power gas turbine. *Periodica Polytechnica, Series of Transportation Engineering*, **29** (1-2): pp. 117-135 (2001)
5. Hangos, K.M.: Application of different regulators for stirred tank reactor control (simulation study). *Hungarian Journal of Industrial Chemistry*, **9**: pp. 397-406 (1981)
6. Hangos, K.M.: Linear models of continuously stirred tank reactors. *Hungarian Journal of Industrial Chemistry*, **8**: pp. 25-34 (1980)
7. Szabó, K., Mika, J., Hangos, K.M.: Effect of anions on temperature-dependence of hydrogen overvoltage on gallium electrode. *Magyar Kémiai Folyóirat*, **81** (1): pp. 21-25 (1975)
8. Szabó, K., Mika, J., Hangos, K.M.: Investigation of hydrogen overvoltage on gallium electrode in system aqueous perchloric-acid acid hydrochloric acid. *Magyar Kémiai Folyóirat*, **80** (12): pp. 569-574 (1974)

Könyvfejezetek

1. Petz, D.; Hangos, K.M., Ruppert, L.: Quantum state tomography with finite sample size. **In:** *Quantum Bio-Informatics*, pp. 247-257, World Scientific, (2008)
2. Hangos, K.M., Szederkényi, G.: Process Control Based on Physically Inherent Passivity. **In:** J. Bao, P.L. Lee: *Process Control: The Passive Systems Approach*. pp. 193-224, Springer-Verlag, London, **ISBN 978-1-84628-892-0** (2007)
3. Baier, Th., Petz, D., Hangos, K.M., Magyar, A.: Comparison of some methods of quantum state estimation. *Proceedings of the 26th Quantum Probability and Infinite Dimensional Analysis Conference*, Levico, Italy (Eds.: L. Accardi, W. Freudenberg and M. Schürmann) **ISBN-13 978-981-270-851-9, ISBN-10 981-270-851-0**, pp. 64-78 (2007)
4. Cameron, I.T., Ingram, G.D., Hangos, K.M.: Multiscale Process Modeling. **In:** *Computer Aided Process and Product Engineering*. Wiley-VCH (Eds.: L. Puigjaner, G. Heyen) **ISBN 3-527-30804-0**, pp. 198-221 (2006)
5. Hangos, K.M., Lakner, R.: Model Tuning, Discrimination, and Verification. **In:** *Computer Aided Process and Product Engineering*. Wiley-VCH (Eds.: L. Puigjaner, G. Heyen) **ISBN 3-527-30804-0**, pp. 171-187 (2006)
6. Lakner, R., Németh, E., Hangos, K.M., Cameron, I.T.: Agent-based diagnosis for granulation processes. *16th European Symposium on Computer Aided Process Engineering and 9th International Symposium on Process Systems Engineering*, Elsevier (Eds.: W. Marquardt, C. Pantelides) pp. 1443-1448 (*ESCAPE-16*), Garmisch-Partenkirchen, Germany (2006)

7. Németh, E., Lakner, R., Hangos, K.M.: Diagnostic goal-driven reduction of multiscale process models. **In:** *Model Reduction and Coarse-Graining Approaches for Multiscale Phenomena* (Eds.: A.N. Gorban, N. Kazantzis, I.G. Kevrekidis, H.C. Öttinger, C. Theodoropoulos) Springer, Berlin-Heidelberg-New York, ISBN 3-540-35885-4, pp. 465-487 (2006)
8. Németh, E., Lakner, R., Hangos, K.M., Cameron, I.T.: Prediction-based diagnosis and loss prevention using qualitative multi-scale models. *European Symposium on Computer Aided Process Engineering – 15*, Elsevier (Eds.: L. Puigjaner and A. Espuña) pp. 535-540 (2005)
9. Németh, E., Lakner, R., Hangos, K.M., Cameron, I.T.: Prediction-based diagnosis and loss prevention using model-based reasoning. *IEA/AIE 2005, Lecture Notes in Artificial Intelligence*, Springer-Verlag, (Eds.: M. Ali and F. Esposito) **3533**: pp. 367-369 (2005)
10. Pongrácz, B., Szederkényi, G., Hangos, K.M.: The effect of algebraic equations on the stability of process systems modelled by differential algebraic equations. **In:** *European Symposium on Computer Aided Process Engineering-13 (ESCAPE-13)*, Lappeenranta, Finland; Elsevier Science, (Eds.: A. Kraslawski and I. Turunen) pp. 857-862 (2003)
11. Lakner, R., Hangos, K.M., Cameron, I.T.: Construction of minimal models for control purposes. **In:** *European Symposium on Computer Aided Process Engineering-13 (ESCAPE-13)*, Lappeenranta, Finland; Elsevier Science, (Eds.: A. Kraslawski and I. Turunen) pp. 755-760 (2003)
12. Tuza, Zs., Szederkényi, G., Hangos, K.M.: The effect of modelling assumptions on the differential index of lumped process models. **In:** *European Symposium on Computer Aided Process Engineering-12 (ESCAPE-12)*, Elsevier Science, (Eds.: J. Grievink and J. van Schijndel) pp. 979-984 (2002)
13. Lakner, R., Hangos, K.M., Cameron, I.T.: Assumption retrieval from process models. **In:** *R. Gani and S.B. Jorgensen (Eds): European Symposium on Computer-Aided Process Engineering – 11*, Elsevier Science B.V., pp. 195-200 (2001)
14. Szederkényi, G., Kristensen, N.R., Hangos, K.M., Jørgensen, S.B.: Nonlinear analysis and control of a continuous fermentation process. **In:** *R. Gani and S.B. Jorgensen (Eds): European Symposium on Computer-Aided Process Engineering – 11*, Elsevier Science B.V., pp. 787-792 (2001)
15. Lakner, R., Hangos, K.M.: Intelligent assumption retrieval from process models by model-based reasoning. **In:** *L. Monostori, J. Váncza and M. Ali (Eds) IEA/AIE 2001, LNAI 2070*, Springer-Verlag, Berlin Heidelberg, pp. 145-154 (2001)
16. Hangos, K.M.: Qualitative Process Modelling. *Chemical Process Control, CPCIV* (Eds: Y. Arkun, W. H. Ray), CACHE, Austin; AIChE, New York, 209-236. (1991)

Könyvfejezetek Magyarországon megjelent kiadványokban

1. Hangos, K.M., Szederkényi, G., Otero-Muras, I.: Process control based on physical insight: passivity and Hamiltonian system models. *Proceedings of the Workshop on System Identification and Control Systems*, Budapest, Hungary (Eds.: J. Bokor and K.M. Hangos, Published by the Advanced Vehicles and Vehicle Control Knowledge Center of BME, Budapest) ISBN 963-421-586-6, pp.129-146 (2006)
2. Palkovics, L., Németh, H., Hangos, K.M.: Nonlinear control design for a mechatronic protection valve. *Proceedings of the Workshop on System Identification and Control Systems*, Budapest, Hungary (Eds.: J. Bokor and K.M. Hangos, Published by the Advanced Vehicles and Vehicle Control Knowledge Center of BME, Budapest) ISBN 963-421-586-6, pp. 63-80 (2006)
3. Szederkényi, G., Magyar, A., Hangos, K.M.: Quasi-polynomial and Lotka-Volterra representation in nonlinear systems and control theory. *Proceedings of the Workshop on System Identification and Control Systems*, Budapest, Hungary (Eds.: J. Bokor and K.M. Hangos, Published by the Advanced Vehicles and Vehicle Control Knowledge Center of BME, Budapest) ISBN 963-421-586-6, pp. 147-163 (2006)

Magyar nyelvű folyóiratcikkek

1. Németh, E., Lakner, R., Hangos, K. M.: Diagnosztikai feladatok megvalósítása ágens-alapú technikával. *Acta Agraria Kaposváriensis*, **10**: pp. 211-222, ISSN 1418-1789, (2007)
2. Fazekas, Cs., Kozmann, Gy., Hangos, K.M.: Biomechanikai rendszerek többlétű modellezése. IME (Informatika és Menedzsment az Egészségügyben) V. évf. 3. sz. 2006. április (2006)
3. Németh, H., Hangos, K.M.: Elektro-pneumatikus védőszelep rendszer identifikációja. *GÉP*, LIV (3-4): pp. 33-42 (2003)
4. Gerzson, M., Leitold, A., Hangos, K.M.: Analysis of controlled process systems by high level Petri nets. II. Analysis. (In Hungarian: Irányított technológiai rendszerek vizsgálata magas szintű Petri-hálóak segítségével. II. Analízis), *Magyar Kémiai Folyóirat*, **103**: pp. 209-223 (1997)
5. Gerzson, M., Leitold, A., Hangos, K.M.: Analysis of controlled process systems by high level Petri nets. I. Modelling. (In Hungarian: Irányított technológiai rendszerek vizsgálata magas szintű Petri-hálóak segítségével. I. Modellezés). *Magyar Kémiai Folyóirat*, **103**: pp. 197-208 (1997)
6. Gerzson, M., Hangos, K.M.: Operátori eljárásokkal irányított rendszerek leírása a rendszer kvalitatív modellje alapján magas szintű Petri hálóak segítségével. *Magyar Kémiai Folyóirat*, **101**: pp. 97-114 (1995)
7. Hangos, K.M.: Present state and possible development trends of research in the fields of chemometrics in Hungary. (In Hungarian: A magyar kemometriai kutatások helyzete és fejlődésének lehetséges irányai.) *Magyar Kémiai Folyóirat*, **100**: pp. 251-256 (1994)
8. Hangos, K.M.: Experiment design for model structure determination of qualitative models (in Hungarian). *Magyar Kémiai Folyóirat*, **96**: pp. 251-257 (1990)
9. Hangos, K.M., Leisztner, L. Kárny, M.: Calibration and Measurement Control Based on Bayes Statistics. (In Hungarian: Bayes-beclsésen alapuló kalibráció és mérésellenőrzés.) *Magyar Kémiai Folyóirat*, **95**: pp. 315-322 (1989)
10. Hangos, K.M., Leisztner, L.: Control of Analytical Measurement Methods Using Signal-to-Noise Ratio. (In Hungarian: Az analitikai kémiai módszerek ellenőrzése a jel-zaj viszony segítségével.) *Magyar Kémiai Folyóirat*, **95**: pp. 110-114 (1989)
11. Hangos, K.M., Almásy, G.: On jump-like state changes of chemical operation units (in Hungarian). *Magyar Kémikusok Lapja*, XLIII (3-4): pp. 140-143 (1988)
12. Hangos, K.M., Leisztner, L.: Transformation of Random Error into Systematic One by Data Reduction Transformation. (In Hungarian: A véletlen hiba átalakulása módszeres hibává az adatredukció során.) *Magyar Kémiai Folyóirat*, **92**: pp. 282-286 (1986)
13. Holderith, J., Hangos, K.M.: Több fázisú reaktorok modellezése II. A hierarchiaszintek közötti információ átvitel lehetséges eszközei: a sajátmértékek. *Magyar Kémiai Folyóirat*, **85**: pp. 35-38 (1979)
14. Hangos, K.M., Holderith, J.: Hierarchical modelling of gas-liquid reactors. Elementary formation submodels (in Hungarian). *Magyar Kémikusok Lapja*, **32**: pp. 598-600 (1977)

Referált nemzetközi konferenciák kiadványaiban megjelent közlemények

1. Cameron, I.; Seligmann, B.; Hangos, K.M.; Németh, E., Lakner, R.: A functional systems approach to the development of improved hazard identification for advanced diagnostic systems', in B. Braunschweig and X. Joulia, ed., '18th European Symposium on Computer Aided Process Engineering, ESCAPE 18', FP-00463 (2008)
2. Csercsik, D.; Hangos, K.M, Nagy, G. (2008) Reaction kinetic models of rapid (g-protein dependent) and slow (beta-arrestin dependent) transmission. Proc. *IBRO International Workshop on Complex Neural Networks "From synaptic transmission to seeing the brain in action"*, Debrecen, Hungary (2008)

3. Csercsik, D.; Szederkényi, G., Hangos, K.M.: Determining flat outputs of MIMO nonlinear systems using directed graphs"8th Portuguese Conference on Automatic Control - *CONTROLO'2008*", 450-455 (2008)
4. Csercsik, D.; Szederkényi, G.; Hangos, K.M., Farkas, I. (2008), 'Parameter Estimation of Hodgkin-Huxley model of GnRH neurons"9th International PhD Workshop on Systems and Control', Izola, Slovenia (2008)
5. Fazekas, C.; Szederkényi, G., Hangos, K.M.: Identification of the Primary Circuit Dynamics in a Pressurized Water Nuclear Power Plant/7th IFAC World Congress, Seoul, Korea, ISBN: 978-1-1234-7890-2, 10640-10645 (2008)
6. Hangos, K.M.; Németh, E., Lakner, R.: A procedure ontology for advanced diagnosis of process systems, in I. Lovrek; R.J. Howlett and L.C. Jain, ed.,12th International Conference on Knowledge-Based and Intelligent Information and Engineering Systems (*KES 2008*), Springer-Verlag Berlin Heidelberg, , pp. 501-508 (2008)
7. Cameron, I.T., Seligmann, B., Hangos, K.M., Lakner, R., Németh, E.: The P3 Formalism: A basics for improved diagnosis in complex systems. *Proceedings of the Chemeca Conference*, Melbourne, Australia, (on CD) (2007)
8. Rozgonyi, Sz., Hangos, K.M.: Estimating The Region of Stability for a Hybrid Model. *Proceedings of the 16th International Conference on Process Control*, Strbske Pleso, Slovakia, (on CD) (2007)
9. Magyar, A., Szederkényi, G., Hangos, K.M.: Control of Mass Action Law Based Reaction Networks. *Proceedings of the 16th International Conference on Process Control*, Strbske Pleso, Slovakia, (on CD) (2007)
10. Németh, E., Fazekas, Cs., Szederkényi, G., Hangos, K.M.: Modeling and simulation of the primary circuit of the Paks nuclear power plant for control and diagnosis. *Proc. EUROSIM 2007* (B. Zupanic, R. Karba, S. Blazic) ISBN: 978-3-901608-32-2, Ljubljana, Slovenia, (on CD) (2007)
11. Fazekas, Cs., Csercsik, D., Szederkényi, G., Hangos, K.M.: Simulator for multi-scale musculoskeletal models with reflex circuits. *Proc. EUROSIM 2007* (B. Zupanic, R. Karba, S. Blazic) no. TH-1-P4-5, ISBN: 978-3-901608-32-2 Ljubljana, Slovenia, (on CD) (2007)
12. Csercsik, D., Szederkényi, G., Hangos, K.M.: Cascade stabilization and reference tracking of a simple nonlinear limb model. *Proceedings of the 26th IASTED International Conference on Modelling, Identification and Control* ISBN Hardcopy: 978-0-88896-633-1 / CD: 978-0-88986-635-5, Innsbruck, Austria, pp. 369-374 (2007)
13. Fazekas, Cs., Szederkényi, G., Hangos, K.M.: Model identification of the primary circuit at the Paks nuclear power plant. *Proceedings of the 26th IASTED International Conference on Modeling, Identification and Control*. ISBN Hardcopy: 978-0-88896-633-1 / CD: 978-0-88986-635-5, Innsbruck, Austria (2007)
14. Fazekas, Cs., Kozmann, Gy., Magos, T., Hangos, K.M.: A Non-Invasive Parameter Estimation Method Based on a Planar Multi-Scale Arm Model. *Proceedings of the 8th International PhD Workshop on Systems and Control*, Balatonfüred, Hungary (on CD) (2007)
15. Magyar, A., Hangos, K.M.: Dynamic of quantum mechanical systems under weak measurements. *Proceedings of the 8th International PhD Workshop on Systems and Control*, Balatonfüred, Hungary (on CD) (2007)
16. Fazekas, Cs., Szederkényi, G., Hangos, K.M.: A simple dynamic model of the primary circuit in VVER plants for controller design purposes and its parameter estimation. *Proceedings of the 8th International PhD Workshop on Systems and Control*, Balatonfüred, Hungary (on CD) (2007)
17. Otero-Muras, I., Szederkényi, G., Hangos, K.M., Alonso, A.A.: Dynamic analysis and control of biochemical reaction networks. 5th Vienna Symposium on Mathematical Modelling (*MATHMOD 2006*), Vienna, Austria, ISBN 3-901608-30-3, Vol. 2, pp. 4-1 to 4-10 (on CD) (2006)

18. Otero-Muras, I., Szederkényi, G., Alonso, A.A., Hangos, K.M.: Dynamic analysis and control of chemical and biochemical reaction networks. *International Symposium on Advanced Control of Chemical Processes (ADCHEM 2006)*, Gramado, Brasil, Preprints Vol. 1, pp. 165-170 (on CD) (2006)
19. Magyar, A., Petz, D., Hangos, K.M.: Bayesian qubit state estimation. *14th IFAC Symposium on System Identification (SYSID-2006)*, Newcastle, Australia, ThB6.2, pp. 949-954 (on CD) (2006)
20. Varga, I., Szederkényi, G., Hangos, K.M., Bokor, J.: Modeling and model identification of a pressurizer at the Paks Nuclear Power Plant. *14th IFAC Symposium on System Identification (SYSID-2006)*, Newcastle, Australia, ThA4.4, pp. 678-683 (on CD) (2006)
21. Fazekas, Cs., Szederkényi, G., Hangos, K.M.: Linear and nonlinear control of musculoskeletal systems. *25th IASTED International Conference on Modelling, Identification and Control (MIC 2006)*, Lanzarote, Spain, ISBN 088986-551-5, No. 500-096, pp. 219-224 (on CD) (2006)
22. Lakner, R., Németh, E., Hangos, K.M., Cameron, I.T.: Multiagent realization of prediction-based diagnosis and loss prevention. *19th International Conference on Industrial, Engineering & Other Applications of Applied Intelligent Systems (IEA/AIE'06)*, Annecy, France, LNAI **4031**, pp. 70-80 (2006)
23. Fazekas, Cs., Hangos, K.M.: Parameter Estimation of a Multi-Scale Arm Model. *6th International PhD Workshop on Systems and Control*, Izola, Slovenia, ISBN 961-6303-74-0 (on CD) (2005)
24. Németh, E., Lakner, R., Hangos, K.M.: A multi-agent prediction-based diagnosis system. *6th International PhD Workshop on Systems and Control*, Izola, Slovenia, ISBN 961-6303-74-0 (on CD) (2005)
25. Magyar, A., Hangos, K.M.: Bayesian qubit tomography. *6th International PhD Workshop on Systems and Control*, Izola, Slovenia, ISBN 961-6303-74-0 (on CD) (2005)
26. Otero-Muras, I., Szederkényi, G., Hangos, K.M., Alonso, A.A.: Stabilization of chemical and biochemical networks. *6th International PhD Workshop on Systems and Control*, Izola, Slovenia, ISBN 961-6303-74-0 (on CD) (2005)
27. Pongrácz, B., Szederkényi, G., Hangos, K.M.: An algorithm to find first integrals in quasi-polynomial ODEs. *6th International PhD Workshop on Systems and Control*, Izola, Slovenia, ISBN 961-6303-74-0 (on CD) (2005)
28. Csercsik, D., Fazekas, Cs., Hangos, K.M.: Dynamic analysis and control of a simple nonlinear limb model. *European Medical and Biological Engineering Conference (EMBEC'05)*, Prague, Czech Republic (on CD) (2005)
29. Schné, T., Hangos, K.M.: A graph theoretical method in controller structure selection for quasi-polynomial systems. *15th International Conference on Process Control '05*, Strbské Pleso, High Tatras, Slovakia (on CD) (2005)
30. Kovács, Á., Németh, E., Hangos, K.M.: Modeling and optimization of runway traffic flow using coloured Petri nets. *International Conference on Control and Automation – ICCA05*, Budapest, Hungary, pp. 881-886 (on CD) (2005)
31. Rozgonyi, Sz., Hangos, K.M.: Hybrid modelling and control of an industrial vaporizer. *15th International Conference on Process Control '05*, Strbské Pleso, High Tatras, Slovakia (on CD) (2005)
32. Fazekas, Cs., Kozmann, Gy., Hangos, K.M.: Hierarchical modelling in biology: systematic building of limb models. *16th IFAC World Congress*, Prague, Czech Republic, Th-M19-TO/3 (on CD) (2005)
33. Magyar, A., Szederkényi, G., Hangos, K.M.: Quasi-polynomial system representation for the analysis and control of nonlinear systems. *16th IFAC World Congress*, Prague, Czech Republic, Tu-A22-TO/5 (on CD) (2005)
34. Németh, H., Palkovics, L., Hangos, K.M.: Feedforward pressure limiter control for mechatronic air management systems. *7th International Symposium on Advanced Vehicle Control'04*, Arnheim, The Netherlands, pp. 677-691 (2004)

35. Magyar, A., Szederkényi, G., Hangos, K.M.: Quadratic stability of process systems in generalized Lotka-Volterra form. *6th IFAC Symposium on Nonlinear Control Systems – NOLCOS 2004*, Stuttgart, Germany, (on CD) (2004)
36. Péni, T., Szederkényi, G., Bokor, J., Hangos, K.M.: Dynamic inversion based velocity tracking control of road vehicles. *6th IFAC Symposium on Nonlinear Control Systems – NOLCOS 2004*, Stuttgart, Germany, (on CD) (2004)
37. Ingram, G.D., Leitold, A., Hangos, K.M.: Structural analysis of the computational properties of QP-DAE systems. *ESCAPE-14 Conference*, Lisbon, Portugal (2004)
38. Pongrácz, B., Ailer, P., Szederkényi, G., Hangos, K.M.: Stability of zero dynamics of a low power gas turbine. *12th Mediterranean Conference on Control and Automation (MED'04)*, Kusadasi, Turkey, (on CD) (2004)
39. Fazekas, Cs., Hangos, K.M.: Model Building, Verification and Sensitivity Analysis of a Multi-Scale Limb Model. *5th International PhD Workshop on Systems and Control – “a Young Generation Viewpoint”*, Balatonfüred, Hungary, ISBN 963-311-359-8 (on CD) (2004)
40. Magyar, A., Hangos, K.M.: Stability Analysis and Feedback Design for QP Systems. *5th International PhD Workshop on Systems and Control – “a Young Generation Viewpoint”*, Balatonfüred, Hungary, ISBN 963-311-359-8 (on CD) (2004)
41. Pongrácz, B., Ailer, P., Szederkényi, G., Hangos, K.M.: Nonlinear Zero Dynamics Analysis and Control of a Low Power Gas Turbine. *5th International PhD Workshop on Systems and Control – “a Young Generation Viewpoint”*, Balatonfüred, Hungary, ISBN 963-311-359-8 (on CD) (2004)
42. Schné, T., Hangos, K.M.: Zero dynamics of SISO quasi-polynomial systems. *5th International PhD Workshop on Systems and Control – “a Young Generation Viewpoint”*, Balatonfüred, Hungary, ISBN 963-311-359-8 (on CD) (2004)
43. Szederkényi, G., Schné, T., Hangos, K.M.: Zero dynamics of continuous and fed-batch bioreactors. **In:** *European Control Conference (ECC-2003)* (on CD) (2003)
44. Péni, T., Szederkényi, G., Hangos, K.M.: Nonlinear dynamic output feedback control of fermentation processes. **In:** *14th International Conference on Process Control (PROCESS-03)*, Strbské Pleso, High Tatras, Slovakia (2003)
45. Magyar, A.J., Hangos, K.M.: Lotka-Volterra representation of process systems for stability analysis. **In:** *14th International Conference on Process Control (PROCESS-03)*, Strbské Pleso, High Tatras, Slovakia (2003)
46. Ingram, G.D., Hangos, K.M., Cameron, I.T.: Representation and analysis of nonlinear process models with quasipolynomial graphs. **In:** *31st Australasian Chemical Engineering Conference (CHEMECA'2003)*, Adelaide, Australia (on CD) (2003)
47. Németh, E., Hangos, K.M.: Prediction-Based Diagnosis Using Coloured Petri Nets. *4th International PhD Workshop: Information Technologies & Control – “Young Generation Viewpoint”*, Spa Libverda, Czech Republic, ISBN 80-239-1806-0 (on CD) (2003)
48. Magyar, A., Hangos, K.M.: Lotka-Volterra Representation of Process Systems for Stability Analysis. *4th International PhD Workshop: Information Technologies & Control – “Young Generation Viewpoint”*, Spa Libverda, Czech Republic, ISBN 80-239-1806-0 (on CD) (2003)
49. Pongrácz, B., Szederkényi, G., Hangos, K.M.: Stability Analysis Techniques for Process Models in DAE Form – the Effect of Algebraic Equations. *4th International PhD Workshop: Information Technologies & Control – “Young Generation Viewpoint”*, Spa Libverda, Czech Republic, ISBN 80-239-1806-0 (on CD) (2003)
50. Ailer, P., Szederkényi, G., Hangos, K.M.: LPV-Analysis and Control Design of a Low-Power Gas Turbine. *4th International PhD Workshop: Information Technologies & Control – “Young Generation Viewpoint”*, Spa Libverda, Czech Republic, ISBN 80-239-1806-0 (on CD) (2003)

51. Williams, R.P.B., Keays, R., McGahey, S., Cameron, I.T., Hangos, K.M.: SCHEMA: Describing models using a modelling object language. In: *30th Australasian Chemical Engineering Conference (CHEMECA'2002)*, Christchurch, New Zealand, paper # 922 (2002)
52. Szederkényi, G., Hangos, K.M., Bokor, J., Vámos, T.: Linear output selection for feedback linearization. *15th Triennial World Congress of the International Federation of Automatic Control*, Barcelona, Spain (on CD) (2002)
53. Lakner, R., Hangos, K.M.: Computer-aided incremental model building. *Proceedings of the IASTED International Conference; Modelling, Identification and Control*, Innsbruck, Austria, pp. 426-431 (2002)
54. Ailer, P., Szederkényi, G., Hangos, K.M.: Parameter-estimation and model validation of a low-power gas turbine. *Proceedings of the IASTED International Conference; Modelling, Identification and Control*, Innsbruck, Austria, pp. 604-609 (2002)
55. Ailer, P., Szederkényi, G., Hangos, K.M.: Model-based nonlinear control of a low-power gas turbine. *15th Triennial World Congress of the International Federation of Automatic Control*, Barcelona, Spain (on CD) (2002)
56. Pongrácz, B., Szederkényi, G., Hangos, K.M.: The effect of algebraic equations on the stability of process systems. *3rd International PhD Workshop: Advances in Supervision and Control Systems – Young Generation Viewpoint*, Strunjan, Slovenia (on CD) (2002)
57. Szederkényi, G., Kovács, M., Hangos, K.M.: Reachability of nonlinear fed-batch fermentation processes. In: *The 2nd International PhD Student Workshop on Systems and Control – “Young Generation’s Viewpoint”*, Balatonfüred (Hungary), ISBN 963 311 354 7, MTA SZTAKI, pp. 41-54 (2001)
58. Ailer, P., Szederkényi, G., Hangos, K.M.: Nonlinear control design of a low-power gas turbine. In: *The 2nd International PhD Student Workshop on Systems and Control – “Young Generation’s Viewpoint”*, Balatonfüred (Hungary), ISBN 963 311 354 7, MTA SZTAKI, pp. 1-10 (2001)
59. Tesar, L., Berec, L., Rakar, A., Szederkényi, G., Kadlec, J., Juricic, D., Hangos, K.M., Kárny, M., Kinnaert, M.: A toolbox for model-based fault detection and isolation. *ECC'99. European Control Conference* (on CD) (1999)
60. Vámos, T., Bokor, J., Hangos, K.M., Bars, R.: Systems-governing principles and multimedia. *IFAC World Congress*. Beijing, China (on CD) (1999)
61. Kárny, M., Hangos, K.M.: On probabilistic modelling in fault detection. *ECC'99. European Control Conference* (on CD) (1999)
62. Hangos, K.M., Szederkényi, G.: Grey box process modelling for fault detection and isolation. *ECC'99. European Control Conference* (on CD) (1999)
63. Vámos, T., Bokor, J., Hangos, K.M.: The ubiquity of system science philosophy and teaching. In: *8th IFAC Symposium on large scale systems: theory and applications*. Preprints. University of Patras Rio Patras, Greece (Eds.: N.T. Koussoulas and P. Groumpos.) Vol. 1, Patras, Greece, pp. 10-15 (1998)
64. Szederkényi, G., Weyer, E., Hangos, K.M.: Simultaneous fault detection of heat exchangers. In: *IFAC Workshop on on-line-fault detection and supervision in the chemical process industries*. Preprints. Lyon, France, (Eds.: P.S. Dhurjati, S. Cauvin.) Vol. 1: p. 6 (1998)
65. Leitold, A., Hangos, K.M.: On algebraic model transformations. In: *CPM'98. 3rd IEEE European workshop on computer-intensive methods in control and data processing*. Prague, Czech Republic, pp. 133-138 (1998)
66. Kolics, B., Hangos, K.M.: A CPN model of an internet object cache. In: *Workshop and tutorial on practical use of coloured Petri nets and design/CPN*. Aarhus, Denmark, pp. 1-16 (1998)
67. Gál, I.P., Hangos, K.M.: SDG Model-based structures for fault detection. In: *IFAC Workshop on on-line-fault detection and supervision in the chemical process industries*. Preprints. Lyon, France (Eds.: P.S. Dhurjati, S. Cauvin.) Vol. 1. Lyon, France, 6 p. (1998)

68. Weyer, E., Hangos, K.M.: Grey box fault detection in heat exchanger networks, *Prep. IFAC Symposium SAFEPROCESS '97*, Kingston Upon Hull, UK., pp. 187-192 (1997)
69. Hangos, K.M., Cameron, I.T.: The formal representation of process system modelling assumptions and their implications. (*Proc. Joint 5th International Symposium on Process systems Engineering (PSE'97) and 3th European Symposium on Computer Aided Process Engineering (ESCAPE-7)*), *Comput. chem. Engng.*, **21** (Suppl): pp. S823-S828 (1997)
70. Hangos, K.M., Juricic, D., Gál, I.: The structure and consistency of the model-base for qualitative model-based diagnosis. *2nd IMACS Symposium on Mathematical Modelling (MATHMOD)*, Vienna, Austria, pp. 45-50 (1997)
71. Hangos, K.M., Tuza, Zs.: Computational Aspects of Graph Theoretic Method in Control. *IEEE Workshop on Computer-Intensive Methods in Control and Signal Processing '96*, Prague, Czech Republic, pp. 25-36 (1996)
72. Hangos, K.M., Tuza, Zs.: Process structure driven control structure selection. *Prep. 13th IFAC World Congress*, San Francisco, USA, Vol. **M**: pp. 187-192 (1996)
73. Gál, I.P., Hangos, K.M., Juricic, D., Znidarsic, A., Csáki, Zs.: Knowledge acquisition in a qualitative diagnostic toolbox. *Proc. IEEE-SMC CESA'96 IMACS Multiconference Computational Engineering in System Applications*, Lille, France, pp. 105-109 (1996)
74. Gál, I.P., Hangos, K.M.: Graph-theoretic method for integrated process, control and diagnostic system synthesis. *SCS 2nd International Conference on Qualitative Information, Fuzzy Techniques, and Neural Networks in Simulation a part of SCS European Simulation Multiconference*, Budapest, Hungary, pp. 719-723 (1996)
75. Varga, E.I., Kovács, G.Z., Jørgensen, S.B., Hangos, K.M.: Robust analysis of distillation column dynamics. In: *Proceedings of the DYCORD'95 Conference*, pp. 333-338 (1995)
76. Varga, E.I., Bokor, J., Hangos, K.M.: The effect of design parameters on robust performance. In: *Proceedings of the 5th IFAC Symp. on Adaptive Control and Signal Processing, ACASP'95*, Budapest, Hungary, pp. 353-358 (1995)
77. Kovács, G.Z, Varga, E.I., Hangos, K.M.: The relation between μ and l_1 robust analysis results. In: *Proceedings of AUTOMATIZÁLÁS'95 Conference*, Budapest, Hungary, **1**, pp. 241-250 (1995)
78. Hangos, K.M., Varga, J.B., Fiedler, F., Fan, L.T.: Integrated synthesis of a process and its fault-tolerant control system. In: *Proceedings of the ESCAPE'95 Conference*, Bled, Slovenia. *Computers and Chemical Engineering*, **19** (Suppl): pp. S465-S470 (1995)
79. Csáki, Zs., Hangos, K.M.: Fuzzy learning for qualitative prediction. In: *Proceedings of the CIRP Workshop*, Budapest, Hungary, pp. 609-627 (1995)
80. Hangos, K.M., Rónyai, L.: The effect of model formulation on the complexity of control problems. *Prep. IEEE Workshop CMP'94*, Prague, Czech Republic, pp. 215-228 (1994)
81. Varga, E.I, Bokor, J., Hangos, K.M.: Robust analysis of potential large overshoots in heat exchanger networks. *Proc. of the ACC'94 Conference*, Baltimore, Maryland, USA, pp. 1422-1426 (1994)
82. Jørgensen, S.B., Hangos, K.M.: Grey-box modeling for identification and control: an emerging discipline or an established technology? *SYSID'94 Conf.*, Copenhagen, Denmark, 3 p. 231-236 (1994)
83. Hangos, K.M., Csáki, Zs., Varga, E.I.: Use of qualitative models for the choice of design parameters of MBPC. *Proc. of the CIM/CIDIC Conference on Advances in Model Based Predictive Control*, pp. 344-357 (1994)
84. Hangos, K.M., Friedler, F., Varga, J., Fan, L.T.: Graph-theoretic approach to integrated process and control system synthesis. *Prep. IFAC Workshop, on Integrated Design of Process and Control*, Baltimore, USA, pp. 58-63 (1994)
85. Gianone, L., Bokor, J., Hangos, K.M.: Grey box identification of vehicle dynamics. *SYSID-94 Conference*, Copenhagen, Denmark, pp. 225-230 (1994)

86. Hangos, K.M.: Complexity of dynamic models for intelligent control. In: *Proc. IFAC Workshop on Mutual Impact of Computing Power and Control Theory*, Plenum Press, pp. 77-95 (1993)
87. Varga, E.I., Bokor, J., Hangos, K.M.: Grey dynamics of heat exchanger networks. In: *12th IFAC World Congress*. Preprints. Sydney, Australia Vol. 2 pp. 149-154 (1993)
88. Hangos, K.M., Csáki, Zs., Varga, E.I.: Use of qualitative models for the choice of design parameters of MBPC. In: *Advances in model-based predictive control. Conference proceedings*. Oxford University, Oxford, Vol. 1 pp. 53-64 (1993)
89. Varga, E.I., Hangos, K.M.: The effect of the heat exchanger network topology on the network control properties. *2nd IFAC workshop on system structure and control*. Preprints. Prague, Czech Republic (Ed. V. Strejc) pp. 220-223 (1992)
90. Hangos, K.M.: Complexity of dynamic models for intelligent control. *IFAC workshop on mutual impact of computing power and control theory. MICC '92*. Preprints. Prague, Czech Republic (Eds. M. Kárny, K. Warwick.) pp. 45-56, (1992).
91. Hangos, K.M.: Technológiai hálózatok strukturális szabályozástechnikai tulajdonságai. (Structural control properties of technological networks.) *Mérés és Automatika*. **40** (1): pp. 12-15 (1992) *Automation '92. Conference with international participation*. Budapest, 1992. Vol. 2. Budapest, MATE, 1992. pp. 445-454, (1992).
92. Csáki, Zs., Hangos, K.M.: Lessons learned from a prototype operator advisor system for real-time process control. *ECAI '92. 10th European conference on artificial intelligence. Workshop notes W9. Advances in real-time expert systems technologies*. Vienna, 1992 Vienna, ECCAI, pp. 23-31, (1992).
93. Hangos, K.M., Hallager, L., Csáki, Zs., Jørgensen, S.B.: A qualitative model for simulation of the start-up of a distillation column with energy feedback. *Prep. EFChE Conference COPE-91*, Barcelona, Spain (1991)
94. Csáki, Zs., Hangos, K.M., Hallager L., Jørgensen, S.B.: Qualitative simulation for start up a distillation column. *Prep. IFAC Workshop on Computer Software Structures Integrating AI/KBS Systems in Process Control*, Bergen, Norway, pp. 81-87 (1991)
95. Hangos, K.M., Hallager, L.: Model structure determination for a heat pump system. *Prep. 9th IFAC/IFORS Symposium on Identification and System Parameter Estimation* Budapest, Hungary, pp. 1668-1672 (1991)
96. Hangos, K.M., Sztanó, T., Tapolcai, L.: Knowledge representation and knowledge base design for Operator Advisor System. *IAEA Specialists' Meeting on "Artificial Intelligence in Nuclear Power Plants"*. Helsinki, Finland, VTT Symposium Series **109** pp. 71-82 (1989)
97. Hangos, K.M., Nagy, M., Hackel, R.: Event handling in large monitoring systems. *Proc. 16th IFAC/IFIP Workshop on Real-Time Programming*. Berlin, GDR, pp. 76-92 (1989)
98. Csáki, Zs., Hangos, K.M., Varga, L.: Installation of an artificial intelligence language into real-time environment. *Proc. 16th IFAC/IFIP Workshop on Real-Time Programming*. Berlin, GDR, pp. 118-135 (1989)
99. Hangos, K.M., Jørgensen, S. B., Clement, K.H.: Estimation of the reaction rate in a packed-bed reactor. *Prep. IFAC Symposium on Dynamics and Control of Chemical Reactors, Distillation Columns and Batch Processes (DYCORD+'89)*, Maastricht, Netherlands, pp. 101-106 (1989)
100. Kárny, M., Hangos, K.M.: One-sided approximation of Bayes rule: theoretical background. *Prep. 10th IFAC World Congress, Münnich*, Vol. **10**. pp. 312-337 (1987); *Proc. 10th Triennial World Congress (ed.: R. Isermann), IFAC Proceeding Series* Vol. **X**. pp. 311-316, Pergamon Press, Oxford-New York etc. (1988)
101. Tóth, J., Hangos, K.M., Halász, G.: Energy-optimal operation conditions of a tunnel kiln. In: *Proc. of the MATCHEM Conference on Mathematical Methods in Chemical Engineering*, Balatonfüred, Hungary, EFCE Vol. **II/1**, pp. 435-442 (1986)

102. Hangos, K.M., Tóth, J.: Maximum likelihood estimation of reaction rate constants. In: *Proc. of the MATCHEM Conference on Mathematical Methods in Chemical Engineering*, Balatonfüred, Hungary, EFCE Vol. **II/1**. pp. 183-189 (1986)
103. Nagy, J.L., Hangos, K.M., Leisztner, L.: Comparison of steady state detection methods in analytical measurements. In: *Proc. of the MATCHEM Conference on Mathematical Methods in Chemical Engineering*, Balatonfüred, Hungary, EFCE pp. 313-322, (1986)
104. Hangos, K.M., Halász, G.: Method for microprocessor-based control of tunnel kilns. In: *LCA'86 Components Instruments and Techniques for Low Cost Automation and Applications Valencia* (Eds.: P. Albertos, J.A. de la Puente), *Universidad Politecnica de Valencia*, pp. 231-235 (1986); *Proc. LCA'86 Components, Instruments and Techniques for Low Cost Automation and Applications* (Eds.: P. Albertos, J.A. de la Puente), *IFAC Proceeding Series Vol. 2*. pp. 267-270, Pergamon Press, Oxford-New York etc. (1988)
105. Hangos, K.M., Virág, T.: The effect of point-like noise sources on chemical distributed parameter systems. *12th IFIP Conference on System Modelling and Simulation*, Budapest, Hungary (1985); *Lecture Notes in Information Theory*, Vol. **85**. pp. 298-303, Springer Verlag, Berlin-Heidelberg-New York-Tokyo (1986)
106. Czulek, A., Hangos, K.M., Inzelt, P.: Microcomputer control of a printing ink plant. *Proc. 7th IFAC/IFIP/IMACS Conference on Digital Computer Application to Process Control*, Vienna, Austria, (1985); *IFAC Proceeding Series*, Vol. **6**. pp. 131-135, Pergamon Press Press, Oxford-New York, etc. (1986)
107. Kárny, M., Hangos, K.M.: Approximation of the Bayes rule. *Prep. 7th IFAC Symposium on Identification and System Parameter Estimation*, Vol. **1**. pp. 1755-1760 York, U.K. (1985)
108. Almásy, G.A., Hangos, K.M.: On the steady state test of processes. *Proc. Int. AMSE Conference "Modelling and Simulation"*, Athens, Greece, Vol. **1**. pp. 27-36 (1984)
109. Hangos, K.M.: Identification of jump component parameters in discrete stationary noise processes. *IFAC'84 World Congress, Budapest (1984) "A Bridge between Control Science and Technology"*, *9th Triennial World Congress of IFAC (eds: J. Gerler, L. Keviczky)*, *IFAC Proceeding Series*, Vol. **2**. pp. 643-648, Pergamon Press, Oxford-New York etc. (1985)
110. Zöld, F.E., Hangos, K.M., Mátyus, Á., Czulek, A.J.: Software system of batch process control with data base handling. *Int. Symp. Applied Automation*, Nice, France, pp. 505-508 (1984)
111. Hangos, K.M.: Investigation of the Peterka-type selftuning regulator by simulation. *Preprints of the 6th IFAC/IFIP Conference on Digital Computer Applications to Process Control*, Düsseldorf, Pergamon Press pp. 403-409 (1980)
112. Hangos, K.M.: Investigation of stirred tank reactor control. *Prep. CHEMPLANT'80 Symposium*, pp. 1110-1121 (1980)

Magyar konferenciák kiadványaiban megjelent közlemények

1. Kolics, B., Hangos, K.M.: Experimental investigation of hierarchical internet object cache characteristics. *INET'98 Conference (on CD)* (1998)
2. Fazekas, Cs., Kozmann, Gy., Hangos, K.M.: Biomechanikai rendszerek többléptékű modellezése. *Neumann Kollokvium*, Veszprém, Hungary, <http://njszt-ob.irt.vein.hu> (2005)
3. Péni, T., Hangos, K.M., Bokor, J.: Nemlineáris állapotmegfigyelő tervezése fermentációs folyamatokhoz. In: *MICROCAD-2003 Nemzetközi Tudományos Konferencia*, Miskolc, Hungary (2003)

Egyetemi jegyzetek

1. Hangos, K.M., Bokor, J., Szederkényi, G.: *Computer Controlled Systems*. (Ed: Veszprémi Egyetemi Kiadó), ISBN 963 9220 94 9, VE 24/2002. (2002)
2. Hangos, K.M., Szederkényi, G.: *Dinamikus rendszerek paramétereinek becslése*. Ed: Veszprémi Egyetemi Kiadó, pp. 1-99 (1999)
3. Hangos, K.M., Gerzson, M., Lakner, R., Gál, I.: *Intelligens irányító rendszerek*. Ed: University of Veszprém, Lecture Notes: pp. 1-119 (1995)
4. Hangos, K.M., Bokor, J., Gerzson, M.: *Computer controlled systems*. Ed: University of Veszprém, Lecture Notes: pp. 1-83 (1994)

Kutatási jelentések

1. Fazekas, Cs., Kozmann, Gy., Magos, T., Hangos, K.M.: Parameter Estimation of a Simple Hierarchical Arm Model. *Technical report of the Systems and Control Laboratory SCL-002/2007*, Budapest, MTA SZTAKI (2007)
2. Csercsik, D., Hangos, K.M.: Nonlinear lumping of cascade activation reactions. *Research Report of the Systems and Control Laboratory SCL-003/2007*, Budapest, MTA SZTAKI (2007)
3. Rozgonyi, Sz., Hangos, K.M., Szederkényi, G.: Improved estimation method of region of stability for nonlinear autonomous systems. *Technical report of the Systems and Control Laboratory SCL-002/2006*, Budapest, MTA SZTAKI (2006)
4. Pongrácz, B., Ailer, P., Szederkényi, G., Hangos, K.M.: Nonlinear zero dynamics analysis and control of a low power gas turbine. *Technical report of the Systems and Control Laboratory SCL-003/2005*, Budapest, MTA SZTAKI (2005)
5. Pongrácz, B., Szederkényi, G., Hangos, K.M.: An algorithm for determining a class of invariants in quasi-polynomial systems. *Technical report of the Systems and Control Laboratory SCL-002/2005*, Budapest, MTA SZTAKI (2005)
6. Németh, E., Lakner, R., Hangos, K.M.: Diagnostic goal-driven reduction of multiscale process models. *Technical report of the Systems and Control Laboratory SCL-001/2005*, Budapest, MTA SZTAKI (2005)
7. Schné, T., Hangos, K.M.: Zero dynamics of SISO quasi-polynomial systems. *Technical report of the Systems and Control Laboratory SCL-005/2004*, Budapest, MTA SZTAKI (2004)
8. Pongrácz, B., Ingram, G., Hangos, K.M.: The structure and analysis of QP-DAE system models. *Technical report of the Systems and Control Laboratory SCL-004/2004*, Budapest, MTA SZTAKI (2004)
9. Fazekas, Cs., Kozmann, Gy., Hangos, K.M.: Hierarchical modelling in biology: A systematic build-up of a limb model. *Technical report of the Systems and Control Laboratory SCL-003/2004*, Budapest, MTA SZTAKI (2004)
10. Németh, E., Hangos, K.M.: Multi-scale process model description by generalized coloured CPN models. *Technical report of the Systems and Control Laboratory SCL-002/2004*, Budapest, MTA SZTAKI (2004)
11. Kovács, Á., Németh, E., Hangos, K.M.: Coloured Petri net model of a simple runway. *Technical report of the Systems and Control Laboratory SCL-001/2004*, Budapest, MTA SZTAKI (2004)
12. Magyar, A., Ingram, G., Szederkényi, G., Hangos, K.M.: On some properties of quasi-polynomial ordinary differential equations and differential-algebraic equations. *Technical report of the Systems and Control Laboratory SCL-010/2003*, Budapest, MTA SZTAKI (2003)

13. Németh, E., Lakner, R., Hangos, K.M., Cameron, I. T.: Hierarchical CPN model-based diagnosis using HAZOP knowledge. *Technical report of the Systems and Control Laboratory SCL-009/2003*, Budapest, MTA SZTAKI (2003)
14. Németh, H., Hangos, K.M.: Nonlinear control of an electro-pneumatic protection valve for circuit pressure limiting. *Technical report of the Systems and Control Laboratory SCL-005/2003*, Budapest, MTA SZTAKI (2003)
15. Németh, H., Palkovics, L., Hangos, K.M.: System identification of an electro-pneumatic protection valve. *Technical report of the Systems and Control Laboratory SCL-001/2003*, Budapest, MTA SZTAKI (2003)
16. Németh, H., Palkovics, L., Hangos, K.M.: Model simplification of a single protection valve: A systematic approach. *Technical report of the Systems and Control Laboratory SCL-004/2002*, Budapest, MTA SZTAKI (2002)
17. Pongrácz, B., Szederkényi, G., Hangos, K.M.: The effect of algebraic equations on the stability of process systems modelled by differential algebraic equations. *Technical report of the Systems and Control Laboratory SCL-003/2002*, Budapest, MTA SZTAKI (2002)
18. Németh, H., Ailer, P., Hangos, K.M.: Nonlinear hybrid model of a single protection valve for pneumatic brake systems. *Technical report of the Systems and Control Laboratory SCL-002/2002*, Budapest, MTA SZTAKI (2002)
19. Ailer, P., Szederkényi, G., Hangos, K.M.: Modeling and nonlinear analysis of a low-power gas turbine. *Technical report of the Systems and Control Laboratory SCL-001/2001*, Budapest, MTA SZTAKI (2001)