List of publications of Philippe Bogaerts

5.1.2. - Books published or edited in collaboration

2000

1.   Hanus,   R., & **Bogaerts,   P.** (2000). *Introduction à l'Automatique (Vol.2. Systèmes discrets et échantillonnés).* De Boeck.

1996

2.   Hanus,   R., & **Bogaerts,   P.** (1996). *Introduction à l'Automatique (Vol.1. Systèmes continus).*   De Boeck.

5.1.3. - Contributions to collective works

2009

1.   Dewasme,   L.   L., **Bogaerts,   P.**, & Vande Wouwer,   A. (2009). Monitoring of bioprocesses: mechanistic and data-driven approaches. In   *Computational Intelligent Techniques for Bioprocess Modelling, Supervision and Control* (pp. 55-97).   Springer-Verlag.

2000

2.   **Bogaerts,   P.**, & Hanus,   R. (2000). Macroscopic modelling of bioprocesses with a view to engineering applications. In   *Focus on Biotechnology, Vol. 4. Engineering and Manufacturing for Biotechnology* (pp. 77-110). Kluwer Academic Publishers.

5.1.4. and 5.1.5. - Peer-reviewed journal articles

2015

1.   Richelle,   A., & **Bogaerts,   P.** (2015, août). Systematic methodology for bioprocess model identification based on generalized kinetic functions. *Biochemical engineering journal*, *100*, 41-49. doi:10.1016/j.bej.2015.04.003

2.   Richelle,   A., Ben Tahar,   I., Hassouna,   M., & **Bogaerts,   P.** (2015). Macroscopic modelling of bioethanol production from potato peel wastes in batch cultures supplemented with inorganic nitrogen. *Bioprocess and biosystems engineering*, *38*(9), 1819-1833.

3.   Dewasme,   L.   L., Fernandes,   S., Amribt,   Z., Santos,   L.   L., **Bogaerts,   P.**, & Vande Wouwer,   A. (2015). State estimation and predictive control of fed-batch cultures of hybridoma cells. *Journal of process control*., DOI: 10.1016/j.jprocont.2014.12.006.

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4.   Richelle,   A., & **Bogaerts,   P.** (2014, novembre). Off-line optimization of baker's yeast production process. *Chemical engineering science*, *119*, 40-52. doi:10.1016/j.ces.2014.07.059

5.   Richelle, A., Fickers, P., & **Bogaerts, P.** (2014, février). Macroscopic modelling of baker's yeast production in fed-batch cultures and its link with trehalose production. *Computers & chemical engineering*, *61*, 220-233. doi:10.1016/j.compchemeng.2013.11.007

6.   **Bogaerts, P.**, & Coutinho, D. F. (2014, janvier). Robust nonlinear state estimation of bioreactors based on H∞ hybrid observers. *Computers & chemical engineering*, *60*, 315-328. doi:10.1016/j.compchemeng.2013.09.013

7.   Amribt, Z., Dewasme, L. L., Vande Wouwer, A., & **Bogaerts, P.** (2014). Optimization and robustness analysis of hybridoma cell fed-batch cultures using the overflow metabolism model. *Bioprocess and biosystems engineering*, *37*, DOI 10.1007/s00449-014-1136-2, 1637-1652. doi:10.1007/s00449-014-1136-2

2013

8.   Niu, H., Amribt, Z., Fickers, P., Tan, W. W., & **Bogaerts, P.** (2013, octobre). Metabolic pathway analysis and reduction for mammalian cell cultures-Towards macroscopic modeling. *Chemical engineering science*, *102*, 461-473. doi:10.1016/j.ces.2013.07.034

9.   Niu, H., Daukandt, M., Rodriguez, C., Fickers, P., & **Bogaerts, P.** (2013). Dynamic modeling of methylotrophic Pichia pastoris culture with exhaust gas analysis: from cellular metabolism to process simulation. *Chemical engineering science*, *87*, 381-392.

10.   Amribt, Z., Niu, H., & **Bogaerts, P.** (2013). Macroscopic modelling of overflow metabolism and model based optimization of hybridoma cell fed-batch cultures. *Biochemical engineering journal*, *70*, 196-209.

2010

11.   Dewasme, L. L., Richelle, A., Dehottay, P., Georges, P., Remy, M., **Bogaerts, P.**, & Vande Wouwer, A. (2010). Linear robust control of S. cerevisiae fed-batch cultures at different scales. *Biochemical engineering journal*, *53*(1), 26-37. doi:10.1016/j.bej.2009.10.001

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12.   Dehouck, Y., Grosfils, A., Folch, B., Gilis, D., **Bogaerts, P.**, & Rooman, M. (2009, octobre). Fast and accurate predictions of protein stability changes upon mutations using statistical potentials and neural networks: PoPMuSiC-2.0. *Bioinformatics*, *25*(19), 2537-2543. doi:10.1093/bioinformatics/btp445

13.   Vastemans, V., Rooman, M., & **Bogaerts, P.** (2009). A robust method for the joint estimation of yield coefficients and kinetic parameters in bioprocess models. *Biotechnology progress*, *25*(3), 606-618. doi:10.1002/btpr.89

14.   Haye, A., Dehouck, Y., Kwasigroch, J.-M., **Bogaerts, P.**, & Rooman, M. (2009). Modeling the temporal evolution of the Drosophila gene expression from DNA microarray time series. *Physical biology*, *6*(1), 016004. doi:10.1088/1478-3975/6/1/016004

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15.   Preud'homme, X. A., Lanquart, J. P., Krystal, A. D., **Bogaerts, P.**, & Linkowski, P. (2008, décembre). Modeling slow-wave activity dynamics: does an exponentially dampened periodic function really fit a single night of normal human sleep? *Clinical neurophysiology*, *119*(12), 2753-2761. doi:10.1016/j.clinph.2008.09.016

16. Hulhoven, X., Vande Wouwer, A., & **Bogaerts, P.** (2008, octobre). State observer scheme for joint kinetic parameter and state estimation. *Chemical engineering science*, *63*(19), 4810-4819. doi:10.1016/j.ces.2007.11.042

17. Dehon, G., Catoire, L., Duez, P., **Bogaerts, P.**, & Dubois, J. (2008). Validation of an automatic comet assay analysis system integrating the curve fitting of combined comet intensity profiles. *Mutation research. Genetic toxicology and environmental mutagenesis*, *650*(2), 87-95.

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18. Grosfils, A., Vande Wouwer, A., & **Bogaerts, P.** (2007, novembre). Systematic decoupled identification of pseudo-stoichiometry, degradation rates and kinetics. *Computers & chemical engineering*, *31*(11), 1449-1455. doi:10.1016/j.compchemeng.2006.12.007

19. Grosfils, A., Vande Wouwer, A., & **Bogaerts, P.** (2007, juin). On a general model structure for macroscopic biological reaction rates. *Journal of biotechnology*, *130*(3), 253-264. doi:10.1016/j.jbiotec.2007.04.006

20. Lepore, R., Vande Wouwer, A., Remy, M., & **Bogaerts, P.** (2007). Receding-horizon estimation and control of ball mill circuits. *Lecture notes in control and information sciences*, *358*(1), 485-493. doi:10.1007/978-3-540-72699-9_40

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21. Hulhoven, X., Vande Wouwer, A., & **Bogaerts, P.** (2006, novembre). Hybrid extended Luenberger-asymptotic observer for bioprocess state estimation. *Chemical engineering science*, *61*(21), 7151-7160. doi:10.1016/j.ces.2006.06.018

22. Vande Wouwer, A., Renotte, C., & **Bogaerts, P.** (2006, octobre). A short note on SPSA techniques and their use in nonlinear bioprocess identification. *Mathematical and computer modelling of dynamical systems*, *12*(5), 415-422. doi:10.1080/13873950600723327

23. Vande Wouwer, A., Renotte, C., Queinnec, I., & **Bogaerts, P.** (2006, octobre). Transient analysis of a wastewater treatment biofilter - Distributed parameter modelling and state estimation. *Mathematical and computer modelling of dynamical systems*, *12*(5), 423-440. doi:10.1080/13873950600723335

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24. Hulhoven, X., Vande Wouwer, A., & **Bogaerts, P.** (2005, août). On a systematic procedure for the predetermination of macroscopic reaction schemes. *Bioprocess and biosystems engineering*, *27*(5), 283-291. doi:10.1007/s00449-005-0406-4

25. Haag, J. E., Vande Wouwer, A., & **Bogaerts, P.** (2005, janvier). Systematic procedure for the reduction of complex biological reaction pathways and the generation of macroscopic equivalents. *Chemical engineering science*, *60*(2), 459-465. doi:10.1016/j.ces.2004.07.128

26. Haag, J. E., Vande Wouwer, A., & **Bogaerts, P.** (2005, janvier). Dynamic modeling of complex biological systems: A link between metabolic and macroscopic description. *Mathematical biosciences*, *193*(1), 25-49. doi:10.1016/j.mbs.2004.11.007

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27.   Dehon,   G., **Bogaerts,   P.**, Duez,   P., Catoire,   L., & Dubois,   J. (2004, octobre). Curve fitting of combined comet intensity profiles: A new global concept to quantify DNA damage by the comet assay. *Chemometrics and intelligent laboratory systems*, *73*(2), 235-243. doi:10.1016/j.chemolab.2004.03.006

28.   Vande Wouwer,   A., Renotte,   C., & **Bogaerts,   P.** (2004, octobre). Biological reaction modeling using radial basis function networks. *Computers & chemical engineering*, *28*(11), 2157-2164. doi:10.1016/j.compchemeng.2004.03.003

29.   **Bogaerts,   P.**, & Vande Wouwer,   A. (2004, juin). Parameter identification for state estimation - Application to bioprocess software sensors. *Chemical engineering science*, *59*(12), 2465-2476. doi:10.1016/j.ces.2004.01.066

30.   Grosfils,   V., Kinnaert,   M., **Bogaerts,   P.**, & Hanus,   R. (2004). Fouling resistance modelling, identification and monitoring in a thermosiphon reboiler. *Chemical Engineering Science*, *59*, 489-499.

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31.   **Bogaerts,   P.**, & Vande Wouwer,   A. (2003, octobre). Software sensors for bioprocesses. *ISA transactions*, *42*(4), 547-558.

32.   **Bogaerts,   P.**, Delcoux, J.-L., & Hanus,   R. (2003, avril). Maximum likelihood estimation of pseudo-stoichiometry in macroscopic biological reaction schemes. *Chemical engineering science*, *58*(8), 1545-1563. doi:10.1016/S0009-2509(02)00680-2

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33.   Some,   T.   I., **Bogaerts,   P.**, Hanus,   R., Hanocq,   M., & Dubois,   J. (2001). Stability parameter estimation at ambient temperature from studies at elevated temperatures. *Journal of pharmaceutical sciences*, *90*(11), 1759-1766. doi:10.1002/jps.1125

34.   Renotte,   C., Vande Wouwer,   A., **Bogaerts,   P.**, & Remy,   M. (2001). Neural network applications in non-linear modelling of (bio)chemical processes. *Measurement and control*, *34*(7), 197-201.

35.   Hanus,   R., & **Bogaerts,   P.** (2001). "Feedback" and "feedforward" conditioning techniques. *European journal of control*, *6*(5), 421-434.

36.   **Bogaerts,   P.**, & Hanus,   R. (2001). On-line state estimation of bioprocesses with full horizon observers. *Mathematics and computers in simulation*, *56*(4-5), 425-441.

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37.   Some,   T.   I., **Bogaerts,   P.**, Hanus,   R., Hanocq,   M., & Dubois,   J. (2000, mars). Improved kinetic parameter estimation in pH-profile data treatment. *International journal of pharmaceutics*, *198*(1), 39-49. doi:10.1016/S0378-5173(99)00404-4

38.   **Bogaerts,   P.**, Vande Wouwer,   A., & Hanus,   R. (2000). Kinetic modelling and parameter identification for simulation and state estimation of bioprocesses. *Journal A*, *41*(3), 3-11.

39. **Bogaerts, P.**, & Vande Wouwer, A. (2000). Modellidentifikation zur zustandsschätzung - Anwendung auf einen bioprozess. *Automatisierungstechnik*, *48*(5), 240-247.

40. Hanomolo, D., **Bogaerts, P.**, Graefe, J., Cherlet, M., Werenne, J., & Hanus, R. (2000). Maximum likelihood parameter estimation of a hybrid neural-classical structure for the simulation of bioprocesses. *Mathematics and computers in simulation*, *51*, 375-385.

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41. Some, T. I., **Bogaerts, P.**, Hanus, R., Hanocq, M., & Dubois, J. (1999, juillet). Incorporating batch effects in the estimation of drug stability parameters using an Arrhenius model. *International journal of pharmaceutics*, *184*(2), 165-172. doi:10.1016/S0378-5173(99)00017-4

42. Berlaimont, V., **Bogaerts, P.**, Dubois, J., Hanus, R., & Hanocq, M. (1999, mars). Multidrug resistance modifies polyamines uptake in P388 murine lymphoma cells: Experimental and modeling approach. *Biophysical chemistry*, *77*(2-3), 161-171. doi:10.1016/S0301-4622(99)00020-4

43. **Bogaerts, P.** (1999). A hybrid asymptotic-Kalman observer for bioprocesses. *Bioprocess Engineering*, *20*(3), 249-255. doi:10.1007/s004490050587

44. **Bogaerts, P.**, Castillo, J., & Hanus, R. (1999). A general mathematical modelling technique for bioprocesses in engineering applications. *Systems analysis, modelling, simulation*, *35*, 87-113.

45. Graefe, J., **Bogaerts, P.**, Castillo, J., Cherlet, M., Werenne, J., Marenbach, P., & Hanus, R. (1999). A new training method for hybrid models of bioprocesses. *Bioprocess and biosystems engineering*, *21*(5), 423-429.

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46. **Bogaerts, P.**, Cuvelier, A., & Kinnaert, M. (1999). Identification for fault detection in an industrial condenser. *Control Engineering Practice*, *6*, 1249-1256.

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47. **Bogaerts, P.**, Castillo, J., & Hanus, R. (1996). Analytical solution of the non uniform heat exchange in a reactor cooling coil with constant fluid flow. *Mathematics and computers in simulation*, *43*, 101-113.

1994

48. **Bogaerts, P.**, Kinnaert, M., Vanbergen, J. P., & Hanus, R. (1994). Mathematical modelling and control of a chemical batch reactor. *Journal A*, *35*(1), 16-23.

5.1.7. - Papers published in national and international conferences or symposium proceedings

2015

1. Richelle, A., & **Bogaerts, P.** (2015). Macroscopic modelling of intracellular reserve carbohydrates production during baker's yeast cultures. *Proceedings of the 8th Vienna International Conference on Mathematical Modelling (MATHMOD 2015)*.

2. Fernandes, S., Richelle, A., Amribt, Z., Dewasme, L. L., **Bogaerts, P.**, & Vande Wouwer, A. (2015). Extended and unscented Kalman filter design for hybridoma cell fed-batch and perfusion cultures. *Proceedings of the IFAC International Symposium on Advanced Control of Chemical Processes (ADCHEM 2015).*

2014

3. Amribt, Z., Dewasme, L. L., Vande Wouwer, A., & **Bogaerts, P.** (2014). Parameter identification for state estimation: Design of an Extended Kalman Filter for hybridoma cell fed- batch cultures. *Proceedings of the 19th IFAC World congress.*

2013

4. Amribt, Z., Dewasme, L. L., Vande Wouwer, A., & **Bogaerts, P.** (2013). Optimal operation of hybridoma cell fed-batch cultures using the overflow metabolism model: Numerical and analytical approach. *Proceedings of the 12th IFAC International Symposium on Computer Applications in Biotechnology (CAB2013).*

5. Dewasme, L. L., Amribt, Z., Santos,, Hantson,, **Bogaerts, P.**, & Vande Wouwer, A. (2013). Hybridoma cell culture optimization using nonlinear model predictive control. *Proceedings of the 12th IFAC International Symposium on Computer Applications in Biotechnology (CAB2013).*

2012

6. Amribt, Z., Niu, H., & **Bogaerts, P.** (2012). Macroscopic modelling of overflow metabolism in fed-batch cultures of hybridoma cells. *Proceedings of the 7th Vienna International Conference on Mathematical Modelling (MATHMOD 2012).*

2010

7. Friesewinkel, P., Niu, H., Drugmand, J.-C., & **Bogaerts, P.** (2010). Simple metabolic modelling of VERO cell growth on glucose in fixed-bed bioreactors. *Proceedings of the 11th IFAC International Symposium on Computer Applications in Biotechnology (CAB2010).*

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8. **Bogaerts, P.**, Rooman, M., Vastemans, V., & Vande Wouwer, A. (2008). Determination of macroscopic reaction schemes : towards a unifying view. *Proceedings of the 17th IFAC World congress.*

9. Grosfils, A., Dehouck, Y., Gilis, D., Rooman, M., & **Bogaerts, P.** (2008). Neural networks to predict protein stability changes upon mutation. *Proceedings of the 17th IFAC World congress.*

10. Haye, A., Dehouck, Y., Kwasigroch, J.-M., **Bogaerts, P.**, & Rooman, M. (2008). Modeling the temporal evolution of the Drosophila gene expression. *Proceedings of the 17th IFAC World congress.*

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11. Grosfils, A., Vande Wouwer, A., & **Bogaerts, P.** (2007). A general kinetic model structure – Simulation and experimental validation. *Proceedings of the 10th IFAC International Symposium on Computer Applications in Biotechnology (CAB2007).*

12. Goffaux, G., Bodizs, L., Vande Wouwer, A., **Bogaerts, P.**, & Bonvin, D. (2007). Parameter identification to enforce practical observability of nonlinear systems. *Proceedings of the 10th IFAC International Symposium on Computer Applications in Biotechnology (CAB2007).*

13. Dewasme, L. L., Vande Wouwer, A., Dessoy, S., Dehottay, P., Hulhoven, X., & **Bogaerts, P.** (2007). Experimental study of neural network software sensors in yeast and bacteria fed-batch processes. *Proceedings of the 10th IFAC International Symposium on Computer Applications in Biotechnology (CAB2007)*.

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14. Hulhoven, X., Renard, F., Dessoy, S., Dehottay, P., **Bogaerts, P.**, & Vande Wouwer, A. (2006). Monitoring and control of a bioprocess for malaria vaccine production. *Proceedings of the 5th IFAC Symposium on Robust Control Design (ROCOND 2006)*.

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15. Lepore, R., Vande Wouwer, A., Remy, M., & **Bogaerts, P.** (2005). Nonlinear model predictive control of cement grinding circuits. *Proceedings of the International Workshop on Assessment and Future Directions of Nonlinear Model Predictive Control*.

16. Hulhoven, X., & **Bogaerts, P.** (2005). Maximum likelihood adaptive observer for bioprocesses. *Proceedings of the 16th IFAC World congress*.

17. Grosfils, A., Vande Wouwer, A., & **Bogaerts, P.** (2005). Hybrid neural network models of bioprocesses: a comparative study. *Proceedings of the 16th IFAC World congress*.

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19. Lepore, R., Vande Wouwer, A., Remy, M., & **Bogaerts, P.** (2004). State and parameter estimation in cement grinding circuits – Practical aspects. *Proceedings of the 7th International Symposium on Dynamics and Control of Process Systems (DYCOPS 7)*.

20. Hulhoven, X., Hanus, R., & **Bogaerts, P.** (2004). Stochastic hybrid observer for bioprocess state estimation. *Proceedings of the 9th IFAC International Symposium on Computer Applications in Biotechnology (CAB9)*.

21. Hulhoven, X., Hanus, R., & **Bogaerts, P.** (2004). Stochastic full horizon – asymptotic hybrid observer applied to a simulated cell culture. *Proceedings of the 9th IFAC International Symposium on Computer Applications in Biotechnology (CAB9)*.

22. Grosfils, A., Vande Wouwer, A., Gaspar,, Dauvrin,, & **Bogaerts, P.** (2004). Systematic decoupled identification of pseudo-stoichiometry, lysis rate and kinetics for a xylanase production. *Proceedings of the 9th IFAC International Symposium on Computer Applications in Biotechnology (CAB9)*.

23. Haag, J. E., Vande Wouwer, A., Remy, M., & **Bogaerts, P.** (2004). Systematic model identification of complex bioprocesses: application to a CHO-K1 cell culture. *Proceedings of the 9th IFAC International Symposium on Computer Applications in Biotechnology (CAB9)*.

24. Renard, F., Vande Wouwer, A., Hulhoven, X., & **Bogaerts, P.** (2004). Modelling and optimal experiment design for cultures of S. Cerevisae. *Proceedings of the 9th IFAC International Symposium on Computer Applications in Biotechnology (CAB9).*

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25. Hulhoven, X., Vande Wouwer, A., & **Bogaerts, P.** (2003). Hybrid extended Luenberger - asymptotic observer for bioprocesses. *Proceedings of the European Control Conference (ECC 2003).*

26. Haag, J. E., Vande Wouwer, A., & **Bogaerts, P.** (2003). From dynamic metabolic modelling to unstructured model identification of complex biosystems. *Proceedings of the 13th IFAC Symposium on System Identification (SYSID '2003).*

27. Vande Wouwer, A., Renotte, C., & **Bogaerts, P.** (2003). Modeling biological reaction rates using RBF networks. *Proceedings of the 4th IMACS Symposium on Mathematical Modelling (4th Mathmod Vienna).*

28. Vande Wouwer, A., Renotte, C., Deconinck,, & **Bogaerts, P.** (2003). Biomass reconstruction in a wastewater treatment biofilter. *Proceedings of the IFAC International Symposium on Advanced Control of Chemical Processes (ADCHEM 2003).*

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29. Hulhoven, X., & **Bogaerts, P.** (2002). Hybrid full horizon-asymptotic observer for bioprocesses. *Proceedings of the 15th IFAC World Congress.*

30. Vande Wouwer, A., Renotte, C., Queinnec, I., Remy, M., & **Bogaerts, P.** (2002). Distributed parameter modeling of a fixed-bed biofilter with experimental validation. *Proceedings of the 10th Mediterranean Conference on Control and Automation (MED 02).*

31. Vande Wouwer, A., Renotte, C., Remy, M., & **Bogaerts, P.** (2002). Hybrid first-principles - neural network approach to modeling of animal cell cultures. *Proceedings of the 10th Mediterranean Conference on Control and Automation (MED 02).*

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32. Grosfils, V., Kinnaert, M., **Bogaerts, P.**, & Hanus, R. (2001). Fouling monitoring in a thermosiphon reboiler. *ECC 2001: proceedings.*

33. Grosfils, V., Kinnaert, M., **Bogaerts, P.**, & Hanus, R. (2001). Fouling resistance modelling, identification and monitoring in a thermosiphon reboiler. *On-line fault detection and supervision in the chemical process industrie: preprints* (pp. 322-327). Oxford: Pergamon.

34. Vande Wouwer, A., Renotte, C., Remy, M., & **Bogaerts, P.** (2001). Hybrid physical-neural network modeling of animal cell cultures. *Proceedings of the IFAC Conference on New Technologies for Computer Control (NTCC2001).*

35. Hulhoven, X., Vande Wouwer, A., Hanus, R., & **Bogaerts, P.** (2001). Systematic generation of identifiable macroscopic reaction schemes - Application to a perfusion cell culture. *Proceedings of the European Control Conference (ECC 2001).*

36. Lepore, R., Vande Wouwer, A., **Bogaerts, P.**, & Remy, M. (2001). Control-oriented modelling in grinding processes: a new approach. *Proceedings of the European Control Conference (ECC 2001).*

37. Vande Wouwer, A., Renotte, C., **Bogaerts, P.**, & Remy, M. (2001). Application of SPSA techniques in nonlinear system identification. *Proceedings of the European Control Conference (ECC 2001).*

38. Renotte, C., **Bogaerts, P.**, Queinnec, I., Saucez,, & Vande Wouwer, A. (2001). Modeling, parameter identification, state and input reconstruction for a fixed-bed biofilter. *Proceedings of the International Conference on SCientific Computation and Differential Equations (SciCADE'01).*

39. **Bogaerts, P.**, & Vande Wouwer, A. (2001). Systematic generation of identifiable macroscopic reaction schemes. *Proceedings of the 8th IFAC Conference on Computer Applications in Biotechnology (CAB8).*

40. **Bogaerts, P.**, & Vande Wouwer, A. (2001). Parameter identification for state estimation of a fed-batch bioreactor: analysis through model falsification. *Proceedings of the 8th IFAC Conference on Computer Applications in Biotechnology (CAB8).*

41. Delcoux, J.-L., Hanus, R., & **Bogaerts, P.** (2001). Equivalence of reaction schemes in bioprocesses modelling. *Proceedings of the Fourth International Symposium on Mathematical Modelling and Simulation in Agricultural and Bio-Industries (M2SABI'01).*

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43. Youssouf, A. I., **Bogaerts, P.**, & Kinnaert, M. (2000). Fuzzy control for a chemical batch reactor. *Proceedings of the 2000 International Conference on Artificial Intelligence (IC-AI'2000).*

44. Hanomolo, D., **Bogaerts, P.**, & Hanus, R. (2000). Metabolism and cell cycle modelling by means of neural network based structures. *Proceedings of the 12th IFAC Symposium on System Identification (SYSID '2000).*

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46. **Bogaerts, P.**, Vande Wouwer, A., & Hanus, R. (2000). Systematic modelling methodology for simulation and state estimation of bioprocesses. *Proceedings of the 3rd IMACS Symposium on Mathematical Modelling (3rd Mathmod Vienna).*

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47. Hanus, R., & **Bogaerts, P.** (1999). Forward conditioning techniques. *Proceedings of the European Control Conference (ECC 99).*

48. **Bogaerts, P.**, Vande Wouwer, A., Cuvelier, A., & Hanus, R. (1999). Distributed parameter modeling and identification of an industrial condenser. *Proceedings of the European Control Conference (ECC 99).*

49. **Bogaerts, P.**, Castillo, J., & Hanus, R. (1999). Mathematical structure and identification for modeling bioprocess kinetics. *Proceedings of the Ninth European Congress on Biotechnology (ECB9)*.

50. **Bogaerts, P.**, & Hanus, R. (1999). On-line estimation of biomass concentration in CHO animal cell cultures. *Proceedings of the Third International Symposium on Mathematical Modelling and Simulation in Agricultural and Bio-Industries (M2SABI'99)*.

51. Swinnen, T., Castillo, J., & **Bogaerts, P.** (1999). Simulating cell cultures using MATLAB. *Proceedings of the 2nd MATLAB Usersconference*.

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52. Hanomolo, D., **Bogaerts, P.**, Graefe, J., Cherlet, M., Werenne, J., & Hanus, R. (1998). A hybrid neural-classical structure for the modelling of a bioprocess. *Proceedings of the IMACS International Symposium on Soft Computing in Engineering Applications (SOFTCOM '98)*.

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53. Cuvelier, A., **Bogaerts, P.**, & Kinnaert, M. (1997). Identification for fault detection applied to an industrial condenser. In Y. Sawaragi & S. Sagara (Eds.), *System identification (SYSID '97): a proceedings volume*: Vol. *3* (pp. 1167-1172). Oxford: Pergamon.

54. **Bogaerts, P.**, Castillo, J., & Hanus, R. (1997). Comparisons between approximate and analytical solutions of the non uniform heat exchange in a reactor cooling coil with time varying fluid flow. *Proceedings of the 15th IMACS World Congress*.

55. Castillo, J., **Bogaerts, P.**, & Hanus, R. (1997). Analytical solution approaches of non uniform temperature profiles. Application to heat exchanger simulations. *Proceedings of the 2nd IMACS Symposium on Mathematical Modelling (2nd Mathmod Vienna)*.

56. **Bogaerts, P.**, Castillo, J., & Hanus, R. (1997). Analytical solution of the non uniform heat exchange in a reactor cooling coil with constant fluid flow. *Proceedings of the 2nd IMACS Symposium on Mathematical Modelling (2nd Mathmod Vienna)*.

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57. **Bogaerts, P.**, Cuvelier, A., Arte, P., & Hanus, R. (1995). Mathematical modelling of a chemical semi-batch reactor. *Proceedings of the EUROSIM '95 Congress*.

Theses and master's dissertations

1999

1. **Bogaerts, P.** (1999). *Contribution à la modélisation mathématique pour la simulation et l'observation d'états des bioprocédés* (Thèse doctorale non-publiée). Université libre de Bruxelles, Faculté des sciences appliquées – Mathématiques, Bruxelles.

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2. **Bogaerts, P.** (1993). *Modélisation et réglage d'un réacteur chimique à fonctionnement discontinu* (Mémoire non-publié). Bruxelles: Université Libre de Bruxelles.

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3. **Bogaerts, P.** (1992). *Étude d'un supraconducteur de type Bi2Sr2CaCu2Ox et effets du dopage au fer et au zinc* (Mémoire non-publié). Bruxelles: Université Libre de Bruxelles.