CURRICULUM VITAE

Paul M.J. Van den Hof

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Born: March 7, 1957 in Maastricht, Netherlands
Family status: Married with Irma Mater (occupation: educational advisor primary education)
                         with two children (Malon and Cas, both born 1988)
Update CV: 27 January 2024

1 Education and Professional Career

- 1982: Master of Science (cum laude), Electrical Engineering, Eindhoven University of Technology, Netherlands (Supervisor Prof.dr.ir. P. Eijkhoff)

- 1983-1986: Research assistant and Ph.D.-student, Dept. Electrical Engineering, Eindhoven Univ. Technology.

- 1986-1991: Assistant professor, Dept. Mechanical Engineering and Marine Techn., Delft Univ. Technology.

- 1989: Doctoral Degree, Eindhoven Univ. Technology. Thesis: *On Residual-Based Parametrization and Identification of Multivariable Systems.* Advisors: Prof.dr.ir. P. Eijkhoff and Prof.ir. O.H. Bosgra.

- 1991-1999: Associate professor, Dept. Mechanical Engineering and Marine Techn., Delft Univ. Technology.

- Sept-Nov 1992: Academic visitor, Dept. Electrical Engineering, University of Newcastle, NSW, Australia.

- 1 June 1999 - 2003: Full professor Model-Based Measurement and Control, Department of Applied Physics, Delft Univ. Technology.

- 2003-2011: Full Professor and founding Director (together with M. Verhaegen) of Delft Center for Systems and Control, Delft University of Technology. The Center is created as the merger of three former systems and control groups of the departments of mechanical engineering, electrical engineering and applied physics. In 2006 the Center comprises 5 full professors, 12 tenured academic staff, 10 Postdocs, 40 PhD students and 12 technical and administrative staff.

- 2004 - 2009: Department Head and Director of the Delft Center for Systems and Control; member of the management team of the Faculty of Mechanical, Maritime and Materials Engineering.

- 2005 - 2014: Scientific Director of the Dutch Institute of Systems and Control (DISC), incorporating the Dutch Graduate School of Systems and Control.
- 2011 - 2014: Part-time (1 day/week) professor Delft Center for Systems and Control, Delft University of Technology.
- 2011 - now: Full professor and chair (2011-2022) Control Systems Group, Department of Electrical Engineering, Eindhoven University of Technology.

2 Awards

- 1983: Control Systems Award, (*Regeltechniekprijs)*, 1983 of the Division for Automatic Control of the Royal Dutch Institute of Engineers (*KIvI*), for the best M.Sc.-thesis within the area of automatic control during 1982 in the Netherlands.
- 2007: IFAC Fellow Award, for "fundamental contributions to system identification and its relation to control design".
- 2008, 2009, 2010, 2011: Teaching Award of the TUD Mechanical Engineering Student Association "Gezelschap Leeghwater" for the best teacher in the 3rd year BSc programme.
- 2008: IEEE Fellow, for "contributions to system identification for control systems".
- 2015 & 2016: Best Teacher Award of the 3rd year BSc programm of the TU/e Department of Electrical Engineering, and nominated on behalf of this department for the Best BSc Teaching Award of TU/e.
- 2016: ERC Advanced Research Grant, EU, for the project "Data-driven Modelling in Dynamic Networks" (2016-2021).
- 2016: Honorary Member of the Hungarian Academy of Sciences.
- 2017: IFAC Distinguished Service Award.
- 2020: IFAC Advisor.
- 2020: IFAC Journal Paper Award for the Best Survey Paper in the Journal of Process Control in the triennium 2016-2019: M.B. Saltik, L. Özkan, J.H.A. Ludlage, S. Weiland and P.M.J. Van den Hof (2018), "An outlook on robust model predictive control algorithms: reflections on performance and computational aspects". Journal of Process Control, Vol. 61, pp. 77-102, January 2018.
- 2023: ERC Proof of Concept Grant, EU, for the project "Dynamic Network Toolbox for Data-driven Model Learning and Diagnostics".
- 2023: IEEE Life Fellow.

3 List of Publications

3.1 Books

B.1. P.M.J. Van den Hof, B. Wahlberg and S. Weiland (Eds.), *System Identification (SYSID 2003)*, Proc. 13th IFAC Symposium on System Identification, Rotterdam, The Netherlands, 27-29 August 2003. 4 volume set, Elsevier, Oxford, UK, ISBN 0-08-043709 5.

B.2. P.S.C. Heuberger, P.M.J. Van den Hof and B. Wahlberg (Eds.), *Modelling and Identification with Rational Orthogonal Basis Functions*, Springer Verlag, 2005, 397pp., ISBN 1-85233-956-X.

B.3. P.M.J. Van den Hof, C.W. Scherer and P.S.C. Heuberger (Eds.), *Model-Based Control: Bridging Rigorous Theory and Advanced Technology*, Springer Verlag, New York, 2009, 256pp., ISBN 978-1-4419-0894-0.

3.2 Journal Papers / Book Chapters

J.1. A.A.H. Damen, P.M.J. Van den Hof and A.K. Hajdasinski (1982). Approximate realization based upon an alternative to the Hankel matrix: the Page matrix. *Systems and Control Letters, 2*, no.4, pp. 202-208.

J.2. P.M.J. Van den Hof (1984). Approximate realization of noisy linear multivariable systems. *Journal A, 25*, no. 1, pp. 21-26.

J.3. A.A.H. Damen, R.P. Guidorzi, A.K. Hajdasinski and P.M.J. Van den Hof (1985). On multivariable partial realization. *Int. J. Control, 41*, no. 3, pp. 589-613.

J.4. F.J.J. Van Bussel, P.M.J. Van den Hof and A.K. Hajdasinski (1985). A cognitive human-operator model; the single input single output (SISO) case. *Int. J. Systems Science, 16*, no. 3, pp. 337-350.

J.5. P.H.M. Janssen and P.M.J. Van den Hof (1985). Some impressions on the 7th IFAC/IFORS Symposium on Identification and System Parameter Estimation, July 3-7, 1985, University of York, United Kingdom. *Journal A, 26*, no. 4, pp. 223-224.

J.6. Y. Tomita, A.A.H. Damen and P.M.J. Van den Hof (1986). Differences between equation error method (EEM) and output error method (OEM) in system identification. (In Japanese). *Trans. of the Japanese Soc. of Instrumentation and Control Engineers, 22*, no. 1, January 1986, pp. 50-55.

J.7. P.M.J. Van den Hof and P.H.M. Janssen (1987). Some asymptotic properties of multivariable models identified by equation error techniques. *IEEE Trans. Automat. Contr., AC-32*, no. 1, pp. 89-92.

J.8. P.M.J. Van den Hof (1989). Criterion based equivalence for equation error models. *IEEE Trans. Automat. Contr., AC-34*, no. 2, pp. 191-193.

J.9. P.M.J. Van den Hof (1992). On system order and structure indices of linear systems in polynomial form. *Int. J. Control, Vol. 55*, no. 6, pp. 1471-1490.

J.10. Y. Tomita, A.A.H. Damen and P.M.J. Van den Hof (1992). Equation error versus output error methods. *Ergonomics, 35*, no. 5/6, pp. 551-564.

J.11. P.M.J. Van den Hof, D.K. de Vries and P. Schoen (1992). Delay structure conditions for identifiability of closed loop systems. *Automatica, 28*, no. 5, pp. 1047-1050.

J.12. P.M.J. Van den Hof and R.J.P. Schrama (1993). An indirect method for transfer function estimation from closed loop data. *Automatica*, Vol. 29, no. 6, pp. 1523-1527.

J.13. P.M.J. Van den Hof (1994). Model sets and parametrizations for identification of multivariable equation error models. *Automatica*, Vol. 30, no. 3, pp. 433-446.

J.14. D.K. de Vries and P.M.J. Van den Hof (1994). Quantification of model uncertainty from data. *Int. J. Robust and Nonlinear Control*, Vol. 4, pp. 301-319.

J.15. R.G. Hakvoort, R.J.P. Schrama and P.M.J. Van den Hof (1994). Approximate identification with closed loop performance criterion and application to LQG feedback design. *Automatica*, Vol.30, no. 4, pp. 679-690.

J.16. R.G. Hakvoort and P.M.J. Van den Hof (1994). Frequency domain curve fitting with maximum amplitude criterion and guaranteed stability. *Int. J. Control*, Vol. 60, no. 5, pp. 809-825.

J.17. P.S.C. Heuberger, O.H. Bosgra and P.M.J. Van den Hof (1995). A generalized orthonormal basis for linear dynamical systems. *IEEE Trans. Autom. Control*, Vol. AC-40, no. 3, pp. 451-465.

J.18. D.K. de Vries and P.M.J. Van den Hof (1995). Quantification of uncertainty in transfer function estimation: a mixed probabilistic – worst-case approach. *Automatica*, Vol. 31, no. 4, pp. 543-557.

J.19. R.G. Hakvoort and P.M.J. Van den Hof (1995). Consistent parameter bounding identification for linearly parametrized model sets. *Automatica*, Vol. 31, no. 7, pp. 957-969.

J.20. P.M.J. Van den Hof, R.J.P. Schrama, R.A. de Callafon and O.H. Bosgra (1995). Identification of normalized coprime plant factors from closed loop experimental data. *Europ. J. Control*, Vol. 1, no. 1, pp. 62-74.

J.21. P.M.J. Van den Hof and R.J.P. Schrama (1995). Identification and control - closed loop issues. *Automatica*, Vol. 31, no. 12, pp. 1751-1770.

J.22. P.M.J. Van den Hof, P.S.C. Heuberger and J. Bokor (1995). System identification with generalized orthonormal basis functions. *Automatica*, Vol. 31, no. 12, pp. 1821-1834.

J.23. R.A. Eek, J.A. Both and P.M.J. Van den Hof (1996). Closed-loop identification of a continuous crystallization process. *AIChE Journal*, Vol. 42, no. 3, pp. 767-776.

J.24. R.A. de Callafon, P.M.J. Van den Hof and P.M.M. Bongers (1996). A unified approach to stability robustness for uncertainty descriptions based on fractional model representations. *IEEE Trans. Automatic Control*, Vol. AC-41, no. 5, pp. 723-727.

J.25. H.G.M. Dötsch and P.M.J. Van den Hof (1996). Test for local structural identifiability of high order non-linear parametrized state space models. *Automatica*, Vol. 32, no. 6, pp. 875-883.

J.26. R.A. de Callafon and P.M.J. Van den Hof (1997). Suboptimal feedback control by a scheme of iterative identification and control design. *Mathematical and Computer Modelling of Dynamical Systems (formerly: Mathem. Modelling of Systems)*, Vol. 3, no 1, pp. 77-101.

J.27. R.G. Hakvoort and P.M.J. Van den Hof (1997). Identification of probabilistic uncertainty regions by explicit evaluation of bias and variance errors. *IEEE Trans. Autom. Control*, Vol. AC-42, no. 11, pp. 1516-1528.

J.28. D.K. de Vries and P.M.J. Van den Hof (1998). Frequency domain identification with generalized orthonormal basis functions. *IEEE Trans. Autom. Control*, Vol. AC-43, no. 5, pp. 656-669.

J.29. J.L. Korving, J.B.M. Wiggers and P.M.J. Van den Hof (1998). De dynamiek van rioolstelsels. H_2O, Vol. 31, no. 13, pp. 16-20. (In Dutch).

J.30. P.M.J. Van den Hof (1998). Closed-loop issues in system identification. *Annual Reviews in Control*, Volume 22, pp. 173-186. Elsevier Science, Oxford, UK.

J.31. T. Zhou, J.G.M. Dötsch and P.M.J. Van den Hof (1998). Model set determination and its application to the control of compact disc players. *Europ. Journal of Control*, Vol. 4, no. 2, pp. 99-115.

J.32. P.M.J. Van den Hof, R.A. de Callafon and E.T. van Donkelaar (1999). CLOSID - A Matlab toolbox for closed-loop system identification. *Journal A*, Vol. 40, no. 3, pp. 19-24.

J.33. E.T. van Donkelaar and P.M.J. Van den Hof (2000). Analysis of closed-loop identification with a tailor-made parametrization. *European Journal of Control*, Vol. 6, no. 1, pp. 54-62.

J.34. Z. Szabo, P.S.C. Heuberger, J. Bokor and P.M.J. Van den Hof (2000). Extended Ho-Kalman algorithm for systems represented in generalized orthonormal bases. *Automatica*, Vol. 36, no. 12, pp. 1809-1818, 2000.

J.35. R.A. de Callafon and P.M.J. Van den Hof (2001). Multivariable feedback relevant system identification of a wafer stepper system. *IEEE Trans. Control Systems Technology*, Vol. 9, no. 2, pp. 381-390, 2001.

J.36. M. Gevers, L. Ljung and P.M.J. Van den Hof (2001). Asymptotic variance expressions for closed-loop identification. *Automatica*, Vol. 37, no. 5, pp. 781-786, 2001.

J.37. P. Albertos and P. Van den Hof (2001). Obituary of Pieter Eykhoff, 1929-2000. *Automatica*, Vol. 37, no. 6, pp. 803-804.

J.38. M. Gilson and P.M.J. Van den Hof (2001). On the relation between a bias-eliminated least-squares (BELS) and an IV estimator in closed-loop identification. *Automatica*, Vol. 37, no. 10, pp. 1593-1600.

J.39. T.J. de Hoog, Z. Szabo, P.S.C. Heuberger, P.M.J. Van den Hof and J. Bokor (2002). Minimal partial realization from generalized orthonormal basis function expansions. *Automatica*, Vol. 38, no. 4, pp. 655-669.

J.40. M. Leskens, L.B.M. van Kessel and P.M.J. Van den Hof. MIMO closed-loop identification of a MSW incinerator (2002). *Control Engineering Practice*, Vol. 10, no. 3, pp. 315-326.

J.41. P.M.J. Van den Hof and R.A. de Callafon (2002). Control-relevant identification and servo design for a compact disc player. In P. Albertos and A. Sala (Eds.), *Iterative Identification and Control*. Springer Verlag, London, UK, ISBN 1-85233-509-2, pp. 225-242.

J.42. R.A. de Callafon and P.M.J. Van den Hof (2002). Control-relevant identification and robust motion control of a wafer stage. In P. Albertos and A. Sala (Eds.), *Iterative Identification and Control*. Springer Verlag, London, UK, ISBN 1-85233-509-2, pp. 243-270.

J.43. S.G. Douma, P.M.J. Van den Hof and O.H. Bosgra (2003). Controller tuning freedom under plant identification uncertainty: double Youla beats gap in robust stability. *Automatica*, Vol. 39 (2003), no. 2, pp. 325-333.

J.44. P.M.J. Van den Hof and R.A. de Callafon (2003). Identification for Control, in *Control Systems, Robotics and Automation*, edited by H. Unbehauen, in *Encyclopedia of Life Support Systems (EOLSS)*, Developed under the auspices of the UNESCO, Eolss Publishers, Oxford, UK, http://www.eolss.net.

J.45. P.S.C. Heuberger, T.J. de Hoog, P.M.J. Van den Hof and B. Wahlberg (2003). Orthonormal basis functions in time and frequency domain: Hambo transform theory. *SIAM Journal on Control and Optimization*, Vol. 42 (2003), no. 4, pp. 1347-1373.

J.46. S.G. Douma and P.M.J. Van den Hof. Relations between uncertainty structures in identification for robust control. *Automatica*, Vol. 44 (2005), no.3, pp. 439-457.

J.47. M. Gilson and P.M.J. Van den Hof (2005). Instrumental variable methods for closed-loop system identification. *Automatica*, Vol. 44 (2005), no. 2, pp. 241-249.

J.48. T. Söderström, P.M.J. Van den Hof, B. Wahlberg and S. Weiland (Eds.) (2005), Data-Based Modelling and System Identification. Automatica Special Issue, Vol. 41, no.3, March 2005.

J.49. X. Bombois, G. Scorletti, M. Gevers, P.M.J. Van den Hof and R. Hildebrand (2006). Least costly identification experiment for control. *Automatica*, Vol. 42 (2006), no. 10, pp. 1651-1662.

J.50. A. Feuer, P.M.J. Van den Hof and P.S.C. Heuberger (2006). A unified transform for LTI systems - presented as a (generalized) frame. *EURASIP Journal on Applied Signal Processing*, Volume 2006, Article ID 91604, Pages 1-9.

J.51. M. Gevers, X. Bombois, G. Scorletti, P. Van den Hof and R. Hildebrand (2006). Experiment design for robust control: why do more work than is needed? In: B.A. Francis, M.C. Smith and J.C. Willems (Eds.), *Control of Uncertain Systems: Modelling, Approximation, and Design: A Workshop on the Occasion of Keith Glovers 60th Birthday*. Lecture Notes in Control and Information Sciences, Springer Verlag, Berlin-Heidelberg, Vol. 329, ISBN 3-540-31754-6, pp. 139-162.

J.52. Z. Szabo, J. Bokor and P.M.J. Van den Hof (2006). Generalized orthonormal basis functions in system identification. In: J. Bokor and K.M. Hangos (Eds.), *Proceedings of the Workshop on System Identification and Control Systems, in honor of Laszlo Keviczky on his 60th birthday*. Budaptest University of Technology and Economics, 2006, pp. 21-38. ISBN 963-421-586-6.

J.53. M. Zandvliet, O.H. Bosgra, J.D. Jansen, P.M.J. Van den Hof and J.F.B.M. Kraaijevanger (2007). Bang-bang control and singular arcs in reservoir flooding. *Journal of Petroleum Science and Engineering*, Vol. 58 (2007)(1-2), pp. 186-200.

J.54. M. Leskens and P.M.J. Van den Hof (2007). Closed-loop identification of multivariable processes with part of the inputs controlled. *Int. J. Control*, Vol. 80 (2007), no. 10, pp. 1552-1561.

J.55. M. Gilson, H. Garnier, P.C. Young and P.M.J. Van den Hof (2008). Instrumental variable methods for closed-loop continuous-time model identification. In: H. Garnier and L. Wang (Eds.), *Identification of Continuous-Time Models from Sampled Data*. Springer Verlag, 2008, ISBN 978-1-84800-160-2, pp. 133-160.

J.56. S. Douma, X. Bombois and P.M.J. Van den Hof (2008). Validity of the standard cross-correlation test for model structure validation. *Automatica*, Vol. 44, no. 5, pp. 1285-1294, 2008.

J.57. J.D. Jansen, O.H. Bosgra and P.M.J. Van den Hof (2008). Model-based control of multiphase flow in subsurface oil reservoirs. *Journal of Process Control*, Vol. 18, pp. 846-855.

J.58. M.J. Zandvliet, J.F.M. Van Doren, O.H. Bosgra, J.D. Jansen and P.M.J. Van den Hof (2008). Controllability, observability and identifiability in single-phase porous media flow. *Computational Geosciences*, Vol. 12, pp. 605-622.

J.59. P.M.J. Van den Hof, R. Tóth and P.S.C. Heuberger (2009). Model structures for identification of linear parameter-varying (LPV) models. In: K.M. Hangos and L. Ndai (Eds.), *Proceedings of the Workshop on Systems & Control Theory in honor of József Bokor on his 60th Birthday*. Budapest University of Technology and Economics, Computer and Automation Research Institute of HAS, Budapest, Hungary, 2009, ISBN 978-963-279-039-8, pp. 15-34.

J.60. R. Bos, X. Bombois and P.M.J. Van den Hof (2009). Accelerating simulations of computationally intensive first principle models using accurate quasi linear parameter varying models. *J. Process Control*, Vol. 19, pp. 1601-1609.

J.61. G.M. van Essen, M.J. Zandvliet, P.M.J. Van den Hof, O.H. Bosgra and J.D. Jansen (2009). Robust waterflooding optimization of multiple geological scenarios. *SPE Journal*, Vol. 14, No. 1, pp. 202-210, March 2009. DOI: 10.2118/102913-PA.

J.62. R. Tóth, P.S.C. Heuberger and P.M.J. Van den Hof (2009). Asymptotically optimal orthonormal basis functions for LPV system identification. *Automatica*, Vol. 45, No. 6, pp. 1359-1370.

J.63. P.M.J. Van den Hof, J.F.M. Van Doren and S.G. Douma (2009). Identification of parameters in large scale physical model structures, for the purpose of model-based operations. In: P.M.J. Van den Hof, C.W. Scherer and P.S.C. Heuberger (Eds.), *Model-Based Control: Bridging Rigorous Theory and Advanced Technology*, Springer-Verlag, New York, USA, ISBN 978-1-4419-0894-0, pp. 125-146.

J.64. A. Mesbah, H.J.M. Kramer, A.E.M. Huesman and P.M.J. Van den Hof (2009). A comparative study on the numerical solution of population balance equation for crystallization processes. *Chemical Engineering Science*, Vol. 64, pp. 4262-4277.

J.65. R. Tóth, P.S.C. Heuberger and P.M.J. Van den Hof (2010). Discretization of linear parameter-varying state-space representations. *IET Control Theory & Applications*, Vol. 4, no. 10, pp. 2082-2096.

J.66. A. Mesbah, J. Landlust, A.E.M. Huesman, H.J.M. Kramer and P.M.J. Van den Hof (2010). A model-based control framework for industrial batch crystallization processes. *Chemical Engineering Research and Design*, Vol. 88, pp. 1223-1233.

J.67. A.E.M. Huesman, P.M.J. Van den Hof and A. Stankiewicz (2010). The essential role of process control in process intensification. *Automazione e Instrumentazione*, March 2010, pp. 82-86.

J.68. R.S. Blom, P. Li, H.H. Langen, A.H. Hoogstrate, J.A.J. Oosterling, P.M.J. Van den Hof, R.H. Munnig Schmidt (2010). Improvement of micro-milling technology towards industrial applications, *Mikroniek*, Vol. 50, no. 1, pp. 6-11, 2010.

J.69. A. Mesbah, A.E.M. Huesman, H.J.M. Kramer and P.M.J. Van den Hof (2011). A comparison of nonlinear observers for output feedback model-based control of seeded batch crystallization processes. *Journal of Process Control*, Vol. 21, pp. 652-666.

J.70. A. Mesbah, A.E.M. Huesman, H.J.M. Kramer, Z. Nagy and P.M.J. Van den Hof (2011). Real-time control of a semi-industrial fed-batch evaporative crystallizer using different direct optimization strategies. *AIChE Journal*, Vol. 57, No. 6, pp. 1557-1569.

J.71. M. Gilson, H. Garnier, P.C. Young and P.M.J. Van den Hof (2011). Optimal instrumental variable method for closed-loop identification. *IET Control Theory & Applications*, Vol. 5, No. 10, pp. 1147-1154.

J.72. G.M. van Essen, P.M.J. Van den Hof and J.D. Jansen (2011). Hierarchical long-term and short-term production optimization. *SPE Journal*, Vol. 16, no. 1, pp. 191-199.

J.73. R. Tóth, J.C. Willems, P.S.C. Heuberger and P.M.J. Van den Hof. The behavioral approach to linear parameter-varying systems. *IEEE Trans. Automatic Control*, Vol. 56, no. 11, pp. 2499-2514.

J.74. J.C. Agüero, G.C. Goodwin and P.M.J. Van den Hof (2011). A virtual closed loop method for closed loop identification. *Automatica*, Vol. 47, no. 8, pp. 1626-1637.

J.75. R. Tóth, P.S.C. Heuberger and P.M.J. Van den Hof (2011). LPV Identification using Series Expansion Models. In: P.L. dos Santos, T-P. Perdicoúlis, C. Novara, J. Ramos and D. Rivera, (Eds.), *Linear Parameter-Varying System Identification - New Developments and Trends*, World Scientific Publishing Co, December 2011. Advanced Series in Electrical and Computer Engineering, Vol. 14, ISBN 978-981-4355-44-5, 404 pp.

J.76. R. Tóth, P.S.C. Heuberger and P.M.J. Van den Hof (2012). Prediction Error Identification of LPV Systems: Present and Beyond. In: J. Mohammadpour and C.W. Scherer (Eds.), *Control of Linear Parameter Varying Systems with Applications*, Springer, Heidelberg, Germany, 2012, pp. 27-58.

J.77. A. Tejada, A.J. den Dekker and P.M.J. Van den Hof (2012). A Matlab-Based Dynamic TEM Simulator. In: R. Doornbos and S. van Loo (Eds.), From Scientific Instrument to Industrial Machine, Springer Briefs in Electrical and Computer Engineering, Springer, 2012, Section 3.3, pp. 38-42. ISBN 978-94-007-4146-1.

J.78. R. Tóth, M. Lovera, P.S.C. Heuberger, M. Corno and P.M.J. Van den Hof (2012). On the discretization of linear fractional representations of LPV Systems. *IEEE Trans. Control Systems Technology*, Vol. 20, No. 6, pp. 1473-1489.

J.79. A. Mesbah, Z.K. Nagy, A.E.M. Huesman, H.J.M. Kramer and P.M.J. Van den Hof (2012). Nonlinear model-based control of a semi-industrial batch crystallizer using a population balance modeling framework. *IEEE Trans. Control Systems Technology*, Vol. 20, no. 5, pp. 1188-1201.

J.80. J.R. van Hulzen, G. Schitter, P.M.J. Van den Hof and J. van Eijk (2012). Dynamics, load balancing and modal control of piezoelectric tube actuators. *Mechatronics*, Vol. 22, No. 3, pp. 282-294.

J.81. N. Nikacevic, A.E.M. Huesman, P.M.J. Van den Hof and A. Stankiewicz (2012). Opportunities and challenges for process control in process intensification. *Chemical Engineering and Processing: Process Intensification*, Vol. 52, pp. 1-15, 2012.

J.82. P.M.J. Van den Hof, A. Dankers, P. Heuberger and X. Bombois (2013). Identification of dynamic models in complex networks with prediction error methods - basic methods for consistent module estimates. *Automatica*, Vol. 49, no. 10, pp. 2994–3006.

J.83. J. Van Doren, P.M.J. Van den Hof, O.H. Bosgra and J.D. Jansen (2013). Controllability and observability in two-phase porous media flow. *Computational Geosciences*, Vol. 17, no. 5, pp. 773-788. DOI: 10.1007/s10596-013-9355-1.

J.84. S. Kuiper, P.M.J. Van den Hof and G. Schitter (2013). Integrated design of the feedback controller and topography estimator for atomic force microscopy. *Control Engineering Practice*, Vol. 21, pp. 1110-1120.

J.85. P.M.J. Van den Hof, M. Steinbuch and C.W. Scherer (2013). Prof.ir. Okko H. Bosgra Obituary. *IEEE Control Systems Magazine*, Vol. 33, no. 5, pp. 88-89.

J.86. G.W. van Essen, P.M.J. Van den Hof and J.D. Jansen (2013). A two-level strategy to realize life-cycle production optimization in an operational setting. *SPE Journal*, Vol. 18, No. 6, pp. 1057-1066. DOI: 10.2118/149736-PA

J.87. R.M. Fonseca, O. Leeuwenburgh, P.M.J. Van den Hof and J.D. Jansen (2014). Ensemble-based hierarchical multi-objective production optimization of smart wells. *Computational Geosciences*, Vol. 18 (3-4), pp. 449-461, 2014. DOI: 10.1007/s10596-013-9399-2.

J.88. N. van de Meugheuvel, A. Pandharipande, D. Caicedo and P.M.J. Van den Hof (2014). Distributed lighting control with daylight and occupancy adaptation. *Energy and Buildings, 75*, pp. 321-329.

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C.224. A.G. Dankers, P.M.J. Van den Hof, D. Materassi and H.H.M. Weerts (2017). Relaxed predictor input selection rules for handling confounding variables in dynamic networks. *IFAC-PapersOnLine, Vol. 50*, no. 1, July 2017, pp. 3983-3988. Proc. 2017 IFAC World Congress, 9-14 July 2017, Toulouse, France. Invited paper.

C.225. H.H.M. Weerts, P.M.J. Van den Hof and A.G. Dankers (2017). Identification of dynamic networks with rank-reduced process noise. *IFAC-PapersOnLine, Vol. 50*, no. 1, July 2017, pp. 10562-10567. Proc. 2017 IFAC World Congress, 9-14 July 2017, Toulouse, France. Invited paper.

C.226. M.M. Siraj, P.M.J. Van den Hof and J.D. Jansen (2017). An adaptive robust optimization scheme for water-flooding optimization in oil reservoirs using residual analysis. *IFAC-PapersOnLine, Vol. 50*, no. 1, July 2017, pp. 11275-11280. Proc. 2017 IFAC World Congress, 9-14 July 2017, Toulouse, France.

C.227. P.M.J. Van den Hof, H.H.M. Weerts and A.G. Dankers (2017). Prediction error identification with rank-reduced output noise. *Proc. 2017 American Control Conference*, 24-26 May 2017, Seattle, WA, USA, pp. 382-387.

C.228. P.M.J. Van den Hof, A.G. Dankers and H.H.M. Weerts (2017). Identification in dynamic networks. *Proc. Foundations of Computer Aided Process Operations / Chemical Process Control (FOCAPO/CPC 2017)*, Tucson, AZ, January 8-12, 2017. Invited keynote paper.

C.229. E. Insuasty, P.M.J. Van den Hof, J.D. Jansen and S. Weiland (2017). Low-dimensional tensor representations for the estimation of petrophysical reservoir parameters. *Proc. SPE Reservoir Simulation Conference*, 20-22 February 2017, Montgomery, TX, USA.

C.230. M.M. Siraj, M.B. Saltik, P.M.J. Van den Hof and S. Grammatico (2018). Scenario-based robust optimization of water flooding in oil reservoirs enjoys probabilistic guarantees. *IFAC PapersOnLine, Vol. 51-8*, pp. 102-108. *Proc. 3rd IFAC Workshop on Automatic Control in Offshore Oil and Gas Production (OOGP 2018)*, May 30 - June 1, 2018, Esbjerg, Denmark.

C.231. T.T. Nguyen, M. Lazar, H. Butler and P.M.J. Van den Hof (2018). An instrumental variable method for closed-loop identification of coreless linear motors. *Proc. 2018 American Control Conference*, 27-29 June 2018, Milwaukee, WI, USA, pp. 5219-5224.

C.232. E.M.M. Kivits and P.M.J. Van den Hof. On representations of linear dynamic networks (2018). *IFAC PapersOnLine, Vol. 51-15*, pp. 838-843. *Proc. 18th IFAC Symposium on System Identification (SYSYD 2018)*, 9-11 July 2018, Stockholm, Sweden. Invited paper.

C.233. H.H.M. Weerts, M. Galrinho, G. Bottegal, H. Hjalmarsson and P.M.J. Van den Hof (2018). A sequential least squares algorithm for ARMAX dynamic network identification. *IFAC PapersOnLine, Vol. 51-15*, pp. 844-849. *Proc. 18th IFAC Symposium on System Identification (SYSYD 2018)*, 9-11 July 2018, Stockholm, Sweden. Invited paper.

C.234. M. Schoukens and P.M.J. Van den Hof. Detecting nonlinear modules in a dynamic network: a step-by-step procedure (2018). *IFAC PapersOnLine, Vol. 51-15*, pp. 593-598. *Proc. 18th IFAC Symposium on System Identification (SYSYD 2018)*, 9-11 July 2018, Stockholm, Sweden.

C.235. G. Bottegal, A. Chuiso and P.M.J. Van den Hof. On dynamic network modeling of stationary multivariate processes (2018). *IFAC PapersOnLine, Vol. 51-15*, pp. 850-861. *Proc. 18th IFAC Symposium on System Identification (SYSYD 2018)*, 9-11 July 2018, Stockholm, Sweden. Invited paper.

C.236. T.R.V. Steentjes, M. Lazar and P.M.J. Van den Hof (2018). A recursive estimation approach to distributed identification of large-scale multi-input single output FIR systems. *IFAC PapersOnLine, Vol. 51-23*, pp. 236-241. *Proc. 7th IFAC Workshop on Distributed Estimation and Control in Networked Systems (NecSys2018)*, 27-28 August 2018, Groningen, The Netherlands.

C.237. M. Schoukens, J.P. Noël and P.M.J. Van den Hof (2018). Combining experiments for linear dynamic network identification in the presence of nonlinearities. *Journal of Physics, Conference Series, vol. 1065*, no. 21, article nr 212026. *Proc. XXII World Congress of the International Measurement Confederation (IMEKO)*, 3-6 September, Belfast, UK, 2018.

C.238. H.H.M. Weerts, P.M.J. Van den Hof and A.G. Dankers (2018). Single module identifiability in linear dynamic networks. *Proc. 57th IEEE Conf. Decision and Control*, 17-19 December 2018, Miami Beach, FL, pp. 4725-4730. Invited paper.

C.239. K.R. Ramaswamy, G. Bottegal and P.M.J. Van den Hof (2018). Local module identification in dynamic networks using regularized kernel-based methods. *Proc. 57th IEEE Conf. Decision and Control*, 17-19 December 2018, Miami Beach, FL, pp. 4713-4718. Invited paper.

C.240. X. Cheng, S. Shi and P.M.J. Van den Hof (2019). Allocation of excitation signals for generic identifiability of dynamic networks. *Proc. 58th IEEE Conf. Decision and Control*, 11-13 December 2019, Nice, France, pp. 5507-5512.

C.241. K.R. Ramaswamy, P.M.J. Van den Hof and A.G. Dankers (2019). Generalized sensing and actuation schemes for local module identification in dynamic networks. *Proc. 58th IEEE Conf. Decision and Control*, 11-13 December 2019, Nice, France, pp. 5519-5524. Invited paper.

C.242. E.M.M. Kivits and P.M.J. Van den Hof (2019). A dynamic network approach to identification of physical systems. *Proc. 58th IEEE Conf. Decision and Control*, 11-13 December 2019, Nice, France, pp. 4533-4538. Invited paper.

C.243. P.M.J. Van den Hof, K.R. Ramaswamy, A.G. Dankers and G. Bottegal (2019). Local module identification in dynamic networks with correlated noise: the full input case. *Proc. 58th IEEE Conf. Decision and Control*, 11-13 December 2019, Nice, France, pp. 5494-5499. Invited paper.

C.244. S. Shi, G. Bottegal and P.M.J. Van den Hof (2019). Bayesian topology identification of linear dynamic networks. *Proc. 2019 European Control Conference*, June 25-28, 2019, Napels, Italy, pp. 2814-2819.

C.245. J.P. Noel, M. Schoukens and P.M.J. Van den Hof (2019). Locating nonlinearity in mechanical systems: a dynmaic network perspective. *36th IMAC, A Conference and Exposition on Structural Dynamics*, Orlando, USA, 12-15 February 2018. Conference Proceedings of the Society for Experimental Mechanics Series, Volume 1, 2019, pp. 363-367.

C.246. C.H.H.M. Custers, I. Proimadis, J.W. Jansen, H. Butler, R. Toth, E.A. Lomonova and P.M.J. Van den Hof (2019). Active compensation of the deformation of a magnetically levitated mover of a planar motor. *Proc. 2019 IEEE International Electric Machines and Drives Conference (IEMDC 2019)*, San Diego, CA, 12-15 May 2019, pp. 854-861.

C.247. V.C. Rajagopal, K.R. Ramaswamy and P.M.J. Van den Hof (2020). A regularized kernel-based method for learning a module in a dynamic network with correlated noise. *Proc. 59th IEEE Conf. Decision and Control*, Jeju Island, Republic of Korea, 15-18 December 2020, pp. 4348-4353.

C.248. P.M.J. Van den Hof and K.R. Ramaswamy (2020). Path-based data-informativity conditions for single module identification in dynamic networks. *Proc. 59th IEEE Conf. Decision and Control*, Jeju Island, Republic of Korea, 15-18 December 2020, pp. 4354-4359.

C.249. T.R.V. Steentjes, M. Lazar and P.M.J. Van den Hof (2020). Data-driven distributed control via virtual reference feedback tuning. *Proc. 59th IEEE Conf. Decision and Control*, Jeju Island, Republic of Korea, 15-18 December 2020, pp. 1804-1809.

C.250. P.M.J. Van den Hof and K.R. Ramaswamy (2020). Single module identification in dynamic networks - the current status. Extended abstract, *Preprints 21st IFAC World Congress*, 12-17 July 2020, Berlin, Germany, pp. 52-55.

C.251. S. Shi, X. Cheng and P.M.J. Van den Hof (2020). Excitation allocation for generic identifiability of a single module in dynamic networks: A graphic approach. *Preprints 21st IFAC World Congress*, 12-17 July 2020, Berlin, Germany, pp. 40-45.

C.252. T.R.V. Steentjes, M. Lazar and P.M.J. Van den Hof (2021). H_∞ performance analysis and distributed controller synthesis for interconnected linear systems from noisy input-state data. Proc. 60th IEEE Conf. Decision and Control, December 13-15, 2021, Austin, TX, USA, pp. 3723-3728.

C.253. V.R. Rajagopal, K.R. Ramaswamy and P.M.J. Van den Hof (2021). Learning local modules in dynamic networks without prior topology information. Proc. 60th IEEE Conf. Decision and Control, December 13-15, 2021, Austin, TX, USA, pp. 840-845.

C.254. T.R.V. Steentjes, M. Lazar and P.M.J. Van den Hof (2021). Scalable distributed H-2 controller synthesis for interconnected linear discrete-time systems. IFAC PapersOnLine, 54-9, pp. 66-71, 2021. Proc. 24th International Symposium on Mathematical Theory of Networks and Systems (MTNS), Cambridge, UK (cancelled).

C.255. T.R.V. Steentjes, P.M.J. Van den Hof and M. Lazar (2021). Handling unmeasured disturbances in data-driven distributed control with virtual reference feedback tuning. IFAC-PapersOnLine, Vol. 54 (7), pp.204-209. Proc. 19th IFAC Symposium on System Identification - Learning Models for Decision and Control, July 14-16, 2021, (Virtual) Padova, Italy, pp. 568-573.

C.256. H.J. Dreef, M.C.F. Donkers and P.M.J. Van den Hof (2021). Identifiability of linear dynamic networks through switching modules. IFAC-PapersOnLine, Vol. 54 (7), pp. 37-42. Proc.19th IFAC Symposium on System Identification - Learning Models for Decision and Control, July 14-16, 2021, (Virtual) Padova, Italy.

C.257. S. Shi, X. Cheng and P.M.J. Van den Hof (2021). Exploiting unmeasured disturbance signals in identifiability of linear dynamic networks with partial measurement and partial excitation. Prepr. 19th IFAC Symposium on System Identification - Learning Models for Decision and Control, July 14-16, 2021, (Virtual) Padova, Italy, pp. 264-267. Extended abstract.

C.258. T.R.V. Steentjes, M. Lazar and P.M.J. Van den Hof (2021). Data-driven distributed controller synthesis in the presence of noise: an optimal controller identification approach. Proc. 2021 European Control Conference, ECC 2021, June 29 - July 2, 2021, Rotterdam, The Netherlands, pp. 2358-2363.

C.259. X. Cheng, S. Shi and P.M.J. Van den Hof (2021). Identifiability in dynamic acyclic networks with partial excitation and measurement. Prepr. 2021 European Control Conference, ECC 2021, June 29 - July 2, 2021, Rotterdam, The Netherlands, pp. 2370-2373. Extended abstract.

C.260. P.M.J. Van den Hof and K.R. Ramaswamy (2021). Learning local modules in dynamic networks. Accepted for presentation at 3rd Annual Learning for Dynamics and Control Conference, June 7-8, 2021, ETH Zurich, Switzerland.

C.261. T.R.V. Steentjes, M. Lazar and P.M.J. Van den Hof (2022). On data-driven control: informativity of noisy input-output data with cross-covariance bounds. Proc. 2022 American Control Conference (ACC 2022), June 8-10, 2022, Atlanta, Georgia, USA, pp. 1426-1431.

C.262. T.R.V. Steentjes, M. Lazar and P.M.J. Van den Hof (2022). Informativity conditions for data-driven control based on input-state data and polyhedral cross-covariance noise bounds. Proc. 25th International Symposium on Mathematical Theory of Networks and Systems (MTNS 2022), 12-16 September 2022, Bayreuth, Germany, pp. 816-821.

C.263. E.M.M. Kivits and P.M.J. Van den Hof (2022). Local identification in diffusively coupled linear networks. Proc. 61st IEEE Conf. Decision and Control, December 6-9, 2022, Cancun, Mexico, pp. 874-879.

C.264. H.J. Dreef, S. Shi, X. Cheng, M.C.F. Donkers and P.M.J. Van den Hof (2022). Excitation allocation for generic identifiability of linear dynamic networks with fixed modules. Paper J.124, published in IEEE Control Systems Letters, presented at the 61st IEEE Conf. Decision and Control, December 6-9, 2022, Cancun, Mexico.

C.265. S.J.M. Fonken, K.R. Ramaswamy and P.M.J. Van den Hof (2023). Local identification in dynamic networks using a multi-step least squares method. Proc. 62nd IEEE Conf. Decision and Control, 13-15 December 2023, Marina Bay Sands, Singapore, pp. 431-436.

C.266. P.M.J. Van den Hof, K.R. Ramaswamy and S.J.M. Fonken (2023). Integrating data-informativity conditions in predictor models for single module identification in dynamic networks. IFAC PapersOnLine, Vol. 56-2 (2023), pp. 2377-2382. Proc. 22nd IFAC World Congress, 9-14 July 2023, Yokohama, Japan.

C.267. E.M.M. Kivits and P.M.J. Van den Hof (2023). Identifiability of diffusively coupled linear networks with partial instrumentation. IFAC PapersOnLine, Vol. 56-2 (2023), pp. 2395-2400. Proc. 22nd IFAC World Congress, 9-14 July 2023, Yokohama, Japan.

C.268. S. Shi, X. Cheng, B. De Schutter and P.M.J. Van den Hof (2023). Signal selection for local module identification in linear dynamic networks: A graphical approach.IFAC PapersOnLine, Vol. 56-2 (2023), pp. 2407-2412. Proc. 22nd IFAC World Congress, 9-14 July 2023, Yokohama, Japan.

4 Supervision of Ph.D.-Theses

T.1. P.S.C. Heuberger, *On Approximate System Identification with System-Based Orthonormal Functions*. Department of Mechanical Engineering and Marine Techn., Delft University of Technology. Co-advisor, January 31, 1991.

T.2. R.J.P Schrama, *Approximate Identifcation and Control Design with Application to a Mechanical System*. Department of Mechanical Engineering and Marine Techn., Delft University of Technology. Co-advisor, May 19, 1992.

T.3. D.K. de Vries, *Identification of Model Uncertainty for Control Design*. Department of Mechanical Engineering and Marine Techn., Delft University of Technology. Co-advisor, September 26, 1994.

T.4. R.G. Hakvoort, *System Identification for Robust Process Control - Nominal Models and Error Bounds*. Dept. Mechanical Engineering and Marine Techn., Delft University of Technology. Co-advisor, November 29, 1994.
Project sponsored by Philips Lighting.

T.5. A.C. van der Klauw, *Closed Loop Identification Issues in the Process Industry*. Dept. Electrical Engineering, Delft University of Technology. Co-advisor, January 9, 1995.
Project sponsored by STW.

T.6. J.G.M. Dötsch, *Identification for Control - with Application to a Compact Disc Mechanism*. Dept. Mechanical Engineering and Marine Techn., Delft University of Technology. Co-advisor, 17 March 1998.
Project sponsored by Philips Research Lab. Eindhoven.

T.7. R.A. de Callafon, *Feedback Oriented Identification for Enhanced and Robust Control. A fractional approach applied to a wafer stage*. Mechanical Engineering Systems and Control Group, Delft University of Technology. Co-advisor, 13 October 1998.
Project sponsored by Dutch Systems and Control Theory Network.

T.8. E.T. van Donkelaar, *Improvement of Efficiency in System Identification and Model Predictive Control of Industrial Processes - A Linear Parametrization Approach*. Delft University of Technology. Advisor, 21 November 2000.
Project sponsored by Dutch Technology Foundation (STW).

T.9. T.J. de Hoog, *Rational Orthonormal Bases and Related Transforms in Linear System Modeling*. Delft University of Technology. Advisor, 10 September 2001.
Project sponsored by Dutch Technology Foundation (STW).

T.10. S. de Waele, *Automatic Inference from Finite Time Observations of Stationary Stochastic Signals*. Delft University of Technology. Advisor, 13 May 2003.
Project sponsored by Dutch Technology Foundation (STW).

T.11. S. Douma, *From Data to Performance - System Identification Uncertainty and Robust Control Design*.
Delft University of Technology. Advisor, 20 June 2006.

T.12. R. Bos, *Monitoring of Industrial Processes using Large Scale First Principle Models*.
Delft University of Technology. Advisor, 21 December 2006.
Project sponsored by TNO-TPD.

T.13. M.J. Zandvliet, *Model-Based Lifecycle Optimization of Well Locations and Production Settings in Petroleum Reservoirs*.
Delft University of Technology. Co-advisor, 17 April 2008.
Project sponsored by Shell International Exploration and Production and Senter-Novem, and performed in cooperation with the Department of Applied Earth Sciences, TUD.

T.14. Roland Tóth, *Modeling and Identification of Linear Parameter-Varying Systems - an orthonormal basis function aproach*.
Delft University of Technology. Advisor, 22 December 2008. Project sponsored by NWO Exact Sciences.

T.15. Jorn F.M. Van Doren, *Model Structure Analysis for Model-Based Operation of Petroleum Reservoirs*.
Delft University of Technology. Advisor, 14 June 2010. Project sponsored by Shell International Exploration and Production, and performed in cooperation with the Department of Applied Earth Sciences, TUD.

T.16. Ali Mesbah, *Optimal Operation of Industrial Batch Crystallizers - A Nonlinear Model-Based Control Approach*.
Delft University of Technology. Advisor, 10 December 2010. Project sponsored by SenterNovem, and performed in cooperation with the Department of Process and Energy, 3mE, TUD.

T.17. Rogier S. Blom, *Model-Based Process Monitoring and Control of Micro-Milling using Active Magnetic Bearings*.
Delft University of Technology. Advisor, 17 May 2011. Project sponsored by MicroNed and the Delft Research Centre on Mechatronics and Microsystems, and performed in cooperation with Dept. Precision and Microsystems Engineering, 3mE, TUD.

T.18. Snezana Djordjevic, *Modeling and Control Perspectives of Two-Phase Fluid Systems with Applications to Bubble Columns*.
Delft University of Technology. Advisor, 27 June 2011. Project sponsored by the Delft Research Centre for Sustainable Industrial Processes.

T.19. Stefan Kuiper, *Mechatronics and Control Solutions for Increasing the Imaging Speed in Atomic Force Microscopy*.
Delft University of Technology. Advisor, in cooperation with dr. Georg Schitter, 8 May 2012.

T.20. Martijn Leskens, *Improved Economic Performance of Municipal Solid Waste Combustion Plants by Model Based Combustion Control*.
Delft University of Technology. Advisor, 18 March 2013. Project sponsored by TNO-MEP.

T.21. Marco Forgione. *Batch-to-Batch Learning for Molde-Based Control of P:rocess Systems with Application to Cooling Crystallization*.
Delft University of Technology. Advisor, 1 July 2014. Project sponsored by DSTI (Dutch Separation Technology Institute).

T.22. Arne Dankers. *System Identification of Dynamic Networks*.
Delft University of Technology. Advisor, 4 September 2014. Project sponsored by the Delft Center for Systems and Control.

T.23. Gijs van Essen. *Model-Based Optimization of Oil Recovery: Robust Operational Strategies.* Delft University of Technology. Advisor, 18 March, 2015. Project sponsored by ISAPP (Shell, TNO, TUD), and performed in cooperation with the Department of Applied Earth Sciences, TUD.

T.24. Skander Taamallah. *Small-Scale Helicopter Autorotation - Modelling, Guidance, and Control*.
Delft University of Technology. Advisor, 18 September 2015. Project sponsored by NLR (Dutch Aerospace Institute).

T.25. Rahul-Mark Fonseca. *A Modified Gradient Formulation for Ensemble Optimization under Geological Uncertainty*. Delft University of Technology. Advisor, 8 December 2015. Project sponsored by ISAPP2 (ENI, TNO, TUD), and supervised by Prof. Jan Dirk Jansen (TUD).

T.26. Max Potters. *Experiment Design for Identification of Structured Linear Systems*. Delft University of Technology. Advisor, 28 June 2016. Project sponsored by EU-FP7 project Autoprofit, and co-supervised by dr. Xavier Bombois.

T.27. Siavash Kahrobaei. *Identification of Flow-Relevant Structural Features in History Matching*. Delft University of Technology. Advisor, 4 July 2016. Project sponsored by Recovery Factory (Shell, TUD), and supervised by Prof. Jan Dirk Jansen.

T.28. Alina Doban. *Stability Domains Computation and Stabilization of Nonlinear Systems: Implications for Biological Systems*. Eindhoven University of Technology, 4 October 2016. Project sponsored by NWO/DISC and supervised by dr. Mircea Lazar.

T.29. Sofie Haesaert. *Data-Driven and Model-Based Methods for Verification and Control of Physical Systems*. 16 February 2017. Project sponsored by NWO/DISC and co-supervised by dr. Alessandro Abate.

T.30. Mohsin Siraj. *Reducing the Effect of Uncertainty in Model-Based Economic Optimization for Oil Recovery*. Eindhoven University of Technology. Advisor, 10 May 2017. Project sponsored by Shell Global Solutions International through the Recovery Factory program, and co-supervised by Prof. Jan Dirk Jansen (TUD).

T.31. Mohamed Darwish. *Bayesian Identification of Linear Dynamic Systems - Synthesisof Kernels in the LTI Case and Beyond*. Eindhoven University of Technology, 10 October 2017. Project funded by the Egyptian Government and supervised by Dr. Roland Tóth.

T.32. Ruxandra Bobiti. *SamplingDriven Stability Domains Computation and Predictive Control of Constrained Nonlinear Systems*. Eindhoven University of Technology, 25 October 2017. Project funded by departmental budget and supervised by Dr. Mircea Lazar.

T.33. Bahadir Saltik. *Risk-aware Model Based Control & Applications on Whey Separation Processes*. Eindhoven University of Technology, 9 January 2018. Project funded by ISPT, Friesland Campina and DSM, and co-supervised by Dr. Leyla Ozkan and Prof. Siep Weiland.

T.34. Eduardo Barros. *Value of Information in Closed-Loop Reservoir Management*. Delft University of Technology, Advisor, 22 January 2018. Project sponsored by ISAPP2 and Petrobras, and supervised by Prof. Jan Dirk Jansen (TUD).

T.35. Pepijn Cox. *Towards Efficient Identification ofLinear Parameter-Varying State-Space Models*. Eindhoven University of Technology, 20 March 2018.Project sponsored by a VENI grant from supervisor dr. Roland Tóth.

T.36. Edwin Insuasty Moreno. *A Spatio-Temporal Approach to Reduced Complexity Modelling for Hydrocarbon Reservoir Optimization*. Eindhoven University of Technology, Advisor, 31 May 2018. Project sponsored by Recovery Factory (Shell, TUD), and co-supervised by Prof. Jan Dirk Jansen (TUD).

T.37. Tuan Trong Nguyen. *Identification and Compensation of Parasitic Effects in Coreless Linear Motors*. Eindhoven University of Technology, 1 October 2018. Project sponsored by TU/e Impulse program, and supervised by Prof. Hans Butler and Dr. Mircea Lazar.

T.38. Harm Weerts. *Identifiability and Identification Methods for Dynamic Networks*. Eindhoven University of Technology, Advisor, 7 November 2018. Project sponsored by CS/EE/TUe and EU-ERC Grant SYSDYNET.

T.39. Henrik Beelen. *Model-based Temperature and State-of-Charge Estimation for Li-Ion Batteries*. Eindhoven University of Technology, Advisor, 11 September 2019. Project 3CCAR, funded by EU H2020, and supervized by prof. Henk Jan Bergveld and dr. Tijs Donkers.

T.40. Shengling Shi. *Topological Aspects of Linear Dynamic Networks: Identifiability and Identification*. Eindhoven University of Technology, Advisor, 1 September 2021. Project funded by EU-ERC Grant SYSDYNET, and co-supervised by dr. Xiaodong Cheng.

T.41. Karthik Ramaswamy. *A Guide to Learning Modules in a Dynamic Network*. Eindhoven University of Technology, Advisor, 3 May 2022. Project funded by EU-ERC Grant SYSDYNET and co-supervised by dr. Giulio Bottegal.

T.42. Tom Steentjes. *Data-driven Methods for Distributed Control of Interconnected Linear Systems*. Eindhoven University of Technology, Advisor, 16 June 2022. Project funded by EU-ERC Grant SYSDYNET and co-supervised by dr. Mircea Lazar.

T.43. Carlos Mendez Blanco. Digital Twin Development for Improved Operation of Batch Process Systems. Advisor, 21 September 2023. Project sponsored by ISPT and supervized by dr. Leyla Ozkan.

T.44. Lizan Kivits. Modelling and Identification of Physical Linear Networks. Advisor, 22 February 2024. Project funded by EU-ERC Grant SYSDYNET and TU/e Department of Electrical Engineering.

Supervision of ongoing PhD projects

- Stefanie Fonken (TU/e). Algorithms for dynamic network identification. Start 11 January 2021. Project sponsored by EU-ERC Grant SYSDYNET.

5 International Scientific Activities

5.1 Editorial Activities

- Associate editor of Automatica, journal of IFAC, the International Federation of Automatic Control, 1 March 1992 - 31 December 1998.

- Automatica Editor for Rapid Publications and member of the Automatica Editorial Board, 1 January 1999 - 1 September 2005.

- Editor of Symposium Proceedings, together with B. Wahlberg and S. Weiland, of 13th IFAC Symposium on System Identification, 27-29 August 2003, Rotterdam, The Netherlands.

- Editor of Automatica Special Issue, T. Söderström, P.M.J. Van den Hof, B. Wahlberg and S. Weiland (Eds.) (2005), *Data-Based Modelling and System Identification*. Automatica Special Issue, Vol. 41, no.3, March 2005.

5.2 Invited plenaries and keynote contributions

- Invited semi-plenary speaker at 10th IFAC Symposium on System Identification, 4-6 July 1994, Copenhagen, Denmark.

- Invited plenary speaker at 11th IFAC Symposium on System Identification, 8-11 July 1997, Kitakyushu, Japan.

- Invited plenary speaker at 1998 Brasilian Control Conference, 14-18 September 1998, Uberlandia, Brasil.

- Invited semi-plenary state-of-the-art lecture, 2001 IEEE Instrumentation and Measurement Technology Conference, IMTC-2001, Budapest, Hungary, 21-23 May, 2001.

- Invited plenary tutorial lecture, IEEE Workshop Advanced Process Control Applications for Industry, Vancouver, Canada, 8-10 May 2006.

- Invited lecture, SPE-ATW Workshop on Closed-loop Reservoir Management, Bruges, Belgium, 26 June 2008.

- Invited semi-plenary lecture, 21st Chinese Control and Decision Conference (2009 CCDC), Guilin, P.R. China, 17-19 June 2009.

- Keynote lecture, IFAC 9th International Symposium on Dynamics and Control of Process Systems, DYCOPS 2010, 5-7 July 2010, Leuven, Belgium. A. Mesbah, A.E.M. Huesman, H.J.M. Kramer and P.M.J. Van den Hof. Nonlinear state estimation for closed-loop control of batch crystallization processes. Keynote lecture held by A. Mesbah.

- Invited keynote lecture, IFAC Workshop on Automatic Control in Offshore Oil and Gas Production, Trondheim, Norway, 30-31 May 2011.

- Invited keynote lecture, 24st Chinese Control and Decision Conference (2012 CCDC), Taiyuan, P.R. China, 23-26 May 2012.

- Invited keynote lecture, *2013 Chinese Control Conference*, Xi'an, P.R. China, 26-28 July 2013.

- Invited lecture, Symposium for the 70th Anniversary of Prof. Laszlo Keviczky, Hungarian Academy of Sciences, Budapest, 3 June 2015.

- Invited keynote lecture, *FOCAPO/ CPC 2017, Foundations of Computer Aided Process Operations / Chemical Process Control*, Loews Ventana Canyon Hotel and Resort, Tucson, Arizona, January 8-12, 2017

- Invited plenary lecture, 18th IFAC Symposium on System Identification, 8-11 July 2018, Stockholm, Sweden.

- Invited plenary lecture, 7th IFAC Workshop on Distributed Estimation and Control in Networked Systems (NecSys18), August 27-28, Groningen, The Netherlands.

- Invited plenary lecture, 6th International Conference on Advances in Control & Optimization of Dynamical Systems (2020 ACODS), 16-19 February 2020, IIT Madras, Chennai, India.

5.3   Program Committees

- IPC member, 10th IFAC Symposium on System Identification, Copenhagen, Denmark, July 1994.

- IPC member, 5th IFAC Symposium on Adaptive Systems in Control and Signal Processing, ACASP'95, Budapest, Hungary, June 14-16, 1995.

- IPC member, 4th European Control Conference (ECC'97), Brussels, Belgium, 1997.

- IPC member, 2nd IFAC Symposium on Robust Control Design (ROCOND'97), Budapest, Hungary, 25-27 June 1997.

- IPC member, 11th IFAC Symposium on System Identification (SYSID'97), Japan, 8-11 July 1997.

- Publications Co-chair, 1999 IEEE International Conference on Control Applications and the IEEE International Symposium on Computer-Aided Control System Design, 22-26 August, 1999, Kohala Coast, Hawaii, USA.

- IPC member, 12th IFAC Symposium on System Identification (SYSID2000), Santa Barbara, CA, 21-23 June 2000.

- IPC member, 3rd IFAC Symposium on Robust Control Design (ROCOND2000), Prague, Czech Republic, 21-23 June 2000.

- IPC member, 2003 IEEE Conference on Control Applications (CCA 2003), Istanbul, Turkey, 23-25 June 2003.

- IPC member, CAO'2003 - 12th IFAC Workshop on Control Applications of Optimisation in Visegrad, Hungary, June 30-July 2, 2003.

- General Chair and IPC co-chair, 13th IFAC Symposium on System Identification, Rotterdam, The Netherlands, 27-29 August 2003.

- IPC member, 2003 European Control Conference, Cambridge, UK, September 1 - 4, 2003.

- IPC member, AMC'04 - Kawasaki, 8th International Workshop on Advanced Motion Control, March 25-27, 2004, Kawasaki, Japan.

- IPC member, 14th IFAC Symposium on System Identification (SYSID 2006), Newcastle, Australia, 29-31 March 2006.

- IPC member, 45th IEEE Conference on Decision and Control, San Diego, CA, 13-15 December 2006.

- IPC member, IEEE International Conference on Mechatronics (ICM 2007), Kumamoto, Japan, 8-10 May 2007.

- IPC member, 16th IEEE Mediterranean Conference on Control and Automation (MED'08), Corsica, France, June 2008.

- Congress Technical Asociate Editor (CTAE), 17th IFAC World Congress, 6-11 July 2008, Seoul, Korea.

- Program Committee member, 47th IEEE Conference on Decision and Control (CDC'08), Cancun, Mexico, 9-11 December 2008.

- IPC member, 15th IFAC Symposium on System Identification (SYSID 2009), Saint-Malo, France, 6-8 July 2009.

- IPC member, European Control Conference 2009, ECC'09, Budapest, Hungary, 23-26 August 2009.

- TPC Member, 22nd Chinese Control and Decision Conference (2010 CCDC), Xuzhou, China, 26-28 May 2010.

- IPC member, UKACC International Conference on Control, Control 2010, Coventry, UK, 7-10 September 2010.

- IPC member, IFAC Workshop on Automatic Control in Offshore Oil and Gas Production, Trondheim, Norway, 30-31 May 2011.

- IPC member, 16th IFAC Symposium on System Identification (SYSID 2012), Brussels, Belgium, July 2012.

- IPC member, 11th IFAC International Workshop on Adaptation and Learning in Control and Signal Processing (ALCOSP), Caen, France, 3-5 July 2013.

- NOC chair, 4th IFAC Nonlinear Model Predictive Control Conference (NMPC '12), 23-27 August 2012, Noordwijkerhout, The Netherlands.

- IPC member, 19th IFAC World Congress, 24-29 August 2014, Cape Town, South Africa.

- IPC member, 17th IFAC Symposium on System Identification (SYSID 2015), 19-21 October 2015, Beijing, P.R. China.

- IPC member, 2nd IFAC Workshop on Automatic Control in Offshore Oil and Gas Production, Florianopolis, Brasil, 2015.

- IPC member, ADCHEM 2015, International Symposium on Advanced Control of Chemical Processes, June 7-10, 2015, Whistler, BA, Canada.

- IPC member, 14th European Control Conference, 15-17 July 2015, Linz, Austria.

- IPC member, 12th IFAC International Workshop on Adaptation and Learning in Control and Signal Processing (IFAC ALCOSP 2016), 29 June - 1 July 2016, Eindhoven, The Netherlands.

- IPC member, 21th IFAC World Congress, Toulouse, France, 2017.

- IPC member, 18th IFAC Symposium on System Identification (SYSID 2018), 9-11 July 2018, Stockholm, Sweden.

- IPC member, 3rd IFAC Workshop on Automatic Control in Offshore Oil & Gas Production (OOGP18), May 30 June 01, 2018, Esbjerg, Denmark.

- IPC member, 7th IFAC Workshop on Distributed Estimation and Control in Networked Systems (NecSys18), August 27-28, 2018, Groningen, The Netherlands.

- Scientific committee member, 29th European Symposium on Computer Aided Process Engineering (ESCAPE-29), Eindhoven, 16-19 June 2019.

- IPC member (Associate Editor at Large), 2021 European Control Conference, 29 June - 2 July 2021, Rotterdam, The Netherlands.

- IPC Co-chair, 19th IFAC Symposium on System Identification, 14-16 July 2021, Padova, Italy.

- IPC member, 3rd IFAC Conference on Modelling, Identification and Control of Nonlinear Systems (MICNON-2021), 25-27 August, 2021, Tokyo, Japan.

- Technical Associate Editor, 22nd IFAC World Congress, 9-14 July 2023, Yokohama, Japan.

- IPC member, 20th IFAC Symposium on System Identification, 2024, Boston, MA, USA.

5.4   Invited Lectures

- Systems and control challenges in model-based reservoir engineering. Invited seminar, University of Melbourne, VC, Australia, 22 November 2007.

- An alternative paradigm for probabilistic model uncertainty bounding in prediction error identification. Seminar given at Centre for Complex Dynamic Systems and Control, University of Newcastle, NSW Australia, 13 November 2007.

- Systems and control challenges in model-based reservoir engineering. Invited seminar, University of Cambridge, UK, 14 March 2008.

- Alternative paradigms for probabilistic model uncertainty bounding in prediction error identification. *Workshop on Uncertain Dynamical Systems 2008*, Awaji, Hyogo, Japan, 2-4 July 2008.

- Asymptotically optimal orthonormal basis functions for LPV systems identification. *Workshop on Systems and Control Theory in honor of József Bokor on his 60th Birthday*, Budapest, Hungary, 9 September 2008.

- Chinese Academy of Sciences, Beijing, China, 19 October 2009.

- Tsinghua University, Beijing, China, 19 October 2009.

- EPFL, Lausanne, Switzerland, 11 March 2010.

- University of Minnesota, Minneaplis, USA, May 2010.

- University of Wisconsin, Madison, USA, May 2010.

- University of California at San Diego, CA, USA, 4 November 2011.

- University of Southern California, CA, USA, 21 November 2011.

- University of Pretoria, South Africa, 20 April 2012.

- *2nd Workshop on Cooperative Estimation and Control over Networks*, Chinese Academy of Sciences, Beijing, China, 24 July 2013.

- University of Oxford, UK, 14 June 2016.

- TU Vienna, Austria, 21 November 2016.

- University of Houston, TX, USA, 13 January 2017.

- Institute for Complex Molecular Systems, Eindhoven University of Technology, Winterschool on Complexity Science, 17 February 2017.

- CARMA Workshop, University of Newcastle, NSW, Australia, 7 December 2017.

- IMT School for Advanced Studies, Lucca, Italy, 21 February 2018.

- National Mathematics Congress, Veldhoven, The Netherlands, 3 April 2018.

- University of Groningen, The Netherlands, 26 April 2018.

- University of California at San Diego, 30 November 2018.

- California Institute of Technology, Los Angeles, 7 December 2018.

- Haus der Ingeniöre, Vienna, 4 April 2019.

- University of Leuven, 5 May 2022.

- Linköping University, Sweden, 2 February 2023.

- University of Stuttgart, Germany, 14 November 2023.

- SZTAKI - Institute for Computer Science and Control, 23 January 2024.

5.5 Memberships and Boards

- Member of the IFAC Council, 1999-2005, 2017-2020.

- Member of the IFAC Technical Committee on Modeling, Identification and Signal Processing (TC-MISP), since December 1994.

- Vice-Chair of IFAC Administrative & Finance Committee (2002-2005).

- Fellow of IEEE (Institute of Electrical and Electronic Engineers), 2008. Member of Control Systems Society, Signal Processing Society and Information Theory Society.

- Member of the Administrative Council of the European Union Control Association (EUCA), 1999 - 2005.

- Elected Member of the Board of Governors of IEEE Control Systems Society, 2003-2005.

- International Member of the Jury T3 (Mechanical, Electrical and Electronic Engineering) of the Flamish Science Foundation FWO, Belgium, 2005-now.

- International Member of the Follow-Up Committee of the Belgian Interuniversitary Attraction Pole (IAP), *Dynamical Systems and Control: Computation, Identification and Modelling*, 2002-2005.

- Chairman of the IFAC Nichols Medal Selection Commmittee (2008-2011).

- IEEE Control Systems Society, Member Fellow Evaluation Committee, 2009.

- IEEE Control Systems Society, Chair Fellow Evaluation Committee, 2011 - 2013.

- Chair, IFAC High Impact Paper Award Committee (2011-2014).

- Vice-Chair IFAC Technical Committee 1.1: Modelling, Identification and Signal Processing, 2011-2017.

- Chair IFAC Strategic Planning Task Force - SWOT Analysis, 2011-2012.

- Chair IFAC Awards Committee, member of IFAC Executive Board, 2014-2017.

- Member IFAC Task Force on Control Research Agenda, 2014-2017.

- IFAC Vice-President, Chair Executive Board, 2017-2020.

- Member of the International Advisory Board of the SZTAKI Institute for Computer Science and Control, Budapest, Hungary. Hungarian Academy of Sciences.

- Chair IFAC Council Taskforce on Sustainability, 2020-2021.

- Elected member of the Board of Governors of IEEE Control Systems Society, 2022-2024.

- Chair of the IFAC Fellow Search Committee, 2023-2026.

5.6   International PhD examination committees

- C.T. Chou, Department of Engineering, University of Cambridge, UK, April 1994. Advisor: J. Maciejowski.

- W.S. Lee, Australian National University, Canberra, Australia, November 1994. Advisor: B.D.O. Anderson.

- A.G. Partanen, Australian National University, Canberra, Australia, June 1995. Advisor: R.B. Bitmead.

- P. Ansay, Université Catholique de Louvain-la-Neuve, Belgium, May/June 1999. Advisor: M. Gevers.

- X. Bombois, "Connecting Prediction Error Identification and Robust Control Analysis: a new Framework",Université Catholique de Louvain-la-Neuve, Belgium, 14 November 2000. Advisor: M. Gevers.

- P. Date, "Identification for Control - Deterministic Algorithms and Error Bounds", Department of Engineering, University of Cambridge, 13 October 2000. Advisor: G. Vinicombe.

- M. Gilson, "Identification des Systèmes en Boucle Fermée. Contributions aux Méthodes de Compensation de Biais et des Sous-Espaces", CRAN- CNRS, Nancy, France, 10 November 2000. Advisors: A. Richard and H. Garnier.

- J. Welsh, University of New South Wales, Newcastle, Australia, August 2004. Advisor: G.C. Goodwin.

- H. Jansson, "Experiment Design with Applications in Identification for Control", School of Electrical Engineering, KTH, Stockholm, Sweden, 3 December 2004, Faculty Opponent. Advisor: H. Hjalmarsson.

- Juan C. Agüero, "System Identification Methodologies Incorporating Constraints", The University of Newcastle, New South Wales, Australia, December 2005. Advisor: G.C. Goodwin.

- J. Gillberg, "Frequency Domain Identification of COntinuous-Time Systems - Reconstruction and Robustness", University of Linköping, Sweden, 15 September 2006, Faculty Opponent. Advisors: L. Ljung and F. Gustafsson.

- K. van Heusden, "Non-Iterative Data-Driven Model Reference Control", EPFL, Lausanne, Switzerland, 11 March 2010, Jury Expert. Advisors: D. Bonvin and A. Karimi.

- J. Lataire, "Frequency Domain Measurement and Identification of Linear, Time-Varying Systems", VUB Brussels, Belgium, 14 January 2011.

- D. Rijlaarsdam, "Frequency domain based performance optimization of systems with static nonlinearities", VUB Brussels and TU Eindhoven, 21-6-2012. Advisors: J. Schoukens and M. Steinbuch.

- P. Hägg, "On structured system identification and nonparametric frequency response estimation", KTH Stockholm, 18-10-2014, Examination Jury Member. Advisor: B. Wahlberg.

- S. Kolumban, "System Identification in Highly Non-Informative Environment", VUB Brussels, 13-01-2016, Examination Jury Member.

- M. (Mariette) Annergren, "Application-oriented input design and optimization methods involving ADMM", KTH Stockholm, 2-9-2016, Examination Jury Member. Advisor: B. Wahlberg.

- K. (Kristian) Hanssen, "Optimal control under uncertainty - Applied to upstream petroleum production", NTNU Trondheim, Norway, 8 February 2017. Opponent. Advisor: B. Foss.

- N. (Niklas) Everitt, "Module identification in dynamic networks: parametric and empirical Bayes methods", KTH Stockholm, Sweden, 1-9-2017. Faculty opponent. Advisor: H. Hjalmarsson.

- J. (Jan) Decuyper, VUB Brussels, Belgium, 24-10-2017 (private). Advisor: J. Schoukens.

- V. (Valentina) Breschi, "Model learning from data: from centralized multi-model regression to distributed cloud-aided single-model estimation", IMT School for Advanced Studies, Lucca, Italy, 21 February 2018. External referee. Advisor: A. Bemporad.

- E. (Eva) Žáčeková, "Identification for model predictive control under closed-loop conditions". Faculty of Electrical Engineering, Czech Technical University in Prague, Czech Republic, 10 May 2019. International opponent. Advisor: M. Sebek.

5.7 International Lecturing

- Invited lectureship in the Belgian Graduate School Systems and Control, course "Identification for Control" (20 hrs), with co-lecturer M. Gevers, November-December 1997.

- Invited lectureship in workshops "Interaction between identification and control design". Laboratoire d'Automatique de Grenoble, Grenoble, France, 1-2 February 1996 and 29 August - 2 September 1998.

- Invited lectureship in CIRA Summer School "Robust Identification and Control", Bertinoro, Italy, 17-22 July 2000.

- Invited lectureship in the Belgian IAP Graduate School Systems and Control, course "System Identification for Control" (21 hrs), with co-lecturer X. Bombois, October-November 2003, May 2011.

- Graduate Course *System identification for Control* (14hrs.), Department of Electrical Engineering, Universidade Federal de Campina Grande, Campina Grande, Brasil, 27 October - 4 November 2004.

- Graduate Course *System Identification* (15 hrs.), with co-lecturer Xavier Bombois, IAP-DYSCO Graduate School, Belgium, May 2011.

- Graduate Course *Dynamic Network Identification*, Lyon, France, April 2021.

Invited seminars have been given in a wide variety of research groups: University of Linköping, Sweden; Royal Institute of Technology, Stockholm, Sweden; University of Cambridge, United Kingdom; University of Dortmund, Germany; Ecole Polytechnique Federale de Lausanne, Switzerland; Hungarian Academy of Sciences, Budapest, Hungary; University of Newcastle, Australia; Australian National University, Canberra, Australia; University of Birmingham, United Kingdom; Catholic University of Leuven, Belgium; University of Bologna, Italy; Uppsala University, Sweden; IIASA, Laxenburg, Austria; University of California at Santa Barbara, USA; IEE, London, United Kingdom; Ruhr-University of Bochum, Germany; University of Groningen, The Netherlands; University of Eindhoven, The Netherlands; CWI, Amsterdam, The Netherlands; Universidade Federal de Campina Grande, Brasil; University of Melbourne, Australia; Chinese Academy of Sciences, Beijing; Tsinghua University, Beijing; University of Minnesota, Minneapolis; University of Wisconsin, Madison; University of Oxford, UK; University of Houston, Texas; University of California at San Diego, California Institute of Technology (CalTech), ETH Zürich.

5.8 Conference Session and Workshop organization

- Organizer (with Ch. Heij), on behalf of the Dutch Systems and Control Theory Network, of the 1992 Summer School on Identification, Zeist, June 1-5, 1992.

- Organizer, on behalf of the Dutch Institute of Systems and Control (DISC), of the 1999 Summer School on Identification for Control, Veldhoven, June 21-24, 1999.

- Organizer of Preconference Tutorial Workshop at 36th IEEE Conference on Decision and Control, San Diego, CA, 9 December 1997, "Modelling and Identification with Orthogonal Basis Functions".

- Co-organizer (together with M. Milanese, Torino, Italy) of Preconference Tutorial Workshop at 1998 American Control Conference, Philadelphia, PA, June 1998. "Identification of uncertainty models for robust control design".

- Organizer of Preconference Tutorial Workshop at 13th IFAC World Congress, Beijing, P.R. China, 4 July 1999, "Modelling and Identification with Orthogonal Basis Functions".

- Organizer of invited sessions:
  - 1992 American Control Conference, June 1992, Chicago, IL. Session organizer together with Dr. R.R. Bitmead (Australian National Univ., Canberra, Australia), of a session entitled, *Interplay Between Identification and Control Design*.
  - 33rd IEEE Conf. Decision and Control, December 1993, Lake Buena Vista, FL. Session organizer, together with Prof. B. Wahlberg (Royal Inst. Technology, Stockholm, Sweden), of a session entitled, *Nonconventional Basis Functions and Wavelets in System Identification*.
  - 13th IFAC World Congress, July 1996, San Francisco, CA, USA. Session organizer, together with Dr. B.M. Ninness (Univ. Newcastle, Australia), of two sessions: *Identification for Control. Part (a): Control-Relevant Criteria in Identification; Part (b): Model Validation and Uncertainty Estimation*.
  - 12th IFAC Symposium on System Identification, 21-23 June 2000, Santa Barbara, CA. Session organizer, together with Prof. B. Wahlberg (KTH Stockholm), of a tutorial session on "Modelling

and Identification with Orthogonal Basis Functions".
- 2014 2014 World Congress, Cape Town, South Africa.
- 55th IEEE Conf. Decision and Control, Las Vegas, 12-14 December 2016.
- 2017 IFAC World Congress, Toulouse, France.
- 18th IFAC Symposium on System Identification, Stockholm, Sweden, July 2018.
- 57th IEEE Conf. Decision and Control, Miami Beach, FL, December 2018.
- 58th IEEE Conf. Decision and Control, Nice, France, December 2019.
- 2020 IFAC World Congress, Berlin, July 2020 (online).
- 19th IFAC Symposium on System Identification, Padova, Italy, July 2021 (online).
- 60th IEEE Conf. Decision and Control, Austin, TX, USA, December 2021 (online).
- 61th IEEE Conf. Decision and Control, Cancun, Mexico, December 2021.
- 2023 IFAC World Congress, Yokohama, Japan, July 2023.
- 62th IEEE Conf. Decision and Control, Singapore, December 2023.

- Organizer of the 2012 and 2019 Workshops of ERNSI, European Research Network on System Identification, 23-26 September 2012 and 22-25 September 2019, Vaeshartelt, Maastricht, The Netherlands.

- Organizer of 2014 DISC Summer School "Data-driven modelling for control", 16-19 June 2014, Zandvoort, The Netherlands.

5.9 International visitors

- Prof. Bo Wahlberg, University of Linköping and Royal Institute of Technology, Stockholm, Sweden, April - June 1991, July 1996; visits sponsored by the Dutch Systems and Control Theory Network.

- Prof. Jozsef Bokor, Hungarian Academy of Sciences, Budapest, April - June 1992, and May 1993; visits sponsored by the Dutch Systems and Control Theory Network.

- Ari G. Partanen, Australian National University, Canberra, Australia, June/July 1994.

- Laszlo Gianone, Hungarian Academy of Sciences, Budapest, November 1994; March-April 1995.

- Prof. Goro Obinata, Akita University, Japan, July - September 1995.

- Dr. Tong Zhou, P.R. China, January - December 1996. Visit sponsored by the Dutch Institute of Systems and Control.

- Dr. Michele Taragna, Polytechnico di Torino, Italy, April - May 1996.

- Dr. Maria Prandini, University of Brescia, Italy, March - July 1998.

- Mrs. Marion Gilson, CRANS, IUT Longwy, France, October - November 1999. Visit sponsored by the European Research Network ERNSI.

- Dr. Husein Akąy, January - February 2000. Visit sponsored by the Dutch Technology Foundation STW.

- Dr. Xavier Bombois, Université Catholique de Louvain-la-Neuve, Belgium, November 2000 - April 2001. Visit sponsored by the European Research Network ERNSI.

- Prof. Arie Feuer, Technion, Israel, February - July 2001. Guest-professorship sponsored by Delft University of Technology.

- Ronan D.F. Rossi, Universidade Federal de Minas Gerais, Brazil. August - December 2005.

- Prof. Raymond A. de Callafon, University of California at San Diego, USA, April-June 2009.

- Dr. Juan Carlos Aguero, University of New South Wales, Newcastle, Australia, May 2009.

- Dr. Maarten Schoukens, VUB, Brussels, spring 2017.

5.10 International Reviews/Audits

- International Auditer service for the University of Sheffield, UK, 2006.

- Member of auditing committee for MSc programs in Informatics, Applied Informatics, Computer Sciences, Flemish Education Council VLIR, 2009.

- Examiner in the jury for the Habilitation à Diriger des Reserches (HdR) of Dr. Marion Gilson, University of Nancy, France, 2 December 2010.

- Examiner in the jury for an academic PhD in the University of Warwick, UK, September 2014.

- Member of the Review Panel of WASP, Wallenberg AI, Autonomous Systems and Software Program (WASP), Sweden, 2021.

- Member of professor appointment committees at Uppsala University and University of Leuven, 2022.

- Expert member of the auditing committee of CTI for accreditation of MSc programs at University of Leuven, 2022.

5.11 European Projects

Participation in European Projects:

- ERNSI - European Research Network on System Identification (1996-now). Team leader of the Dutch team since 2002.

- SIMONET - System Identification and Modelling Network (HCM) (1994-1997).

- INTCOM - Upgrading the Hungarian Higher Education of Intelligent Systems in Control and Measurement (TEMPUS II) (1998-2000).

- AUTOPROFIT - Autonomous economic model-based operation of industrial process systems. KP7-STREP (2010-2013), EU contribution M€1.75, Coordinator.

- SYSDYNET - Data driven modelling of dynamic networks. H2020 ERC Advanced Reseach Grant (2016-2022). EU Contribution M€2.5, PI.

- SYSDYNETTOOL - Dynamic Network Toolbox for Data-Driven Model Learning and Diagnostics. ERC Proof of Concept Grant (2024-2025). EU Contribution K€150, PI.

6 National/local Activities

6.1 Dutch PhD examination committees

- G.G. Brouwn, "Postural Control of the Human Arm", Faculty of Design, Engineering and Production, Delft University of Technology, 17 January 2000. Advisors: H.G. Stassen and F. van der Helm.

- H. Adriaens, "Modeling and Control of a Piezo-Actuated Positioning Mechanism", Delft University of Technology, 27 March 2000. Advisors: G.J. Olsder and F. Tuinstra.

- G.Z. Angelis, "System Analysis, Modelling and Control with Polytopic Linear Models", Eindhoven University of Technology, 6 February 2001. Advisors: J.J. Kok and H. Nijmeijer.

- B.E. Sarroukh, "Signal Processing: Global and Local Analysis", Eindhoven University of Technology, 15 February 2001. Advisors: M.L.J. Hautus and J. Bergmans, A.C. den Brinker.

- B. Haverkamp, "Subspace Method Identification, Theory and Practice", Department of Electrical Engineering, Delft University of Technology, 13 February 2001. Advisors: H. Verbruggen and M. Verhaegen.

- R.G. Klaver, "Novel Interferometer to Measure the Figure of Strongly Aspherical Mirrors", Department of Applied Physics, Delft University of Technology, 6 March 2001. Advisor: J. Braat.

- A. Ypma, "Learning Methods for Machine Vibration Analysis and Health Monitoring", Department of Applied Physics, Delft University of Technology, 12 November 2001. Advisor: L.J. van Vliet and R.P.W. Duin.

- S. Koekebakker, "Model Based Control of a Flight Simulator Motion System", Department of Mechanical Engineering, Delft University of Technology, 10 December 2001. Advisors: O.H. Bosgra and A.J.J. van der Weiden.

- H. Bloemen, "Predictive Control Based on Black-Box State-Space Models", Department of Electrical Engineering, Delft University of Technology, 4 February 2002. Advisors: H.B. Verbruggen and T.J.J. van den Boom.

- V. Verdult, "Nonlinear System Identification - A State-Space Approach", University of Twente, 1 March 2002. Advisor: M.H.G. Verhaegen.

- D.G. Lindeijer, "Controlling Automated Traffic Agents", Delft University of Technology, 4 February 2003. Advisor: G. Lodewijks.

- Y. Fuad, "On Multifrequency Modelling and Control of PWM DC-DC Converters", Delft University of Technology, 13 May 2003. Advisors G.J. Olsder and J.W. van der Woude.

- A. Mierenet, "Nulling Interferometry for Direct Exo-Planet Detection", Delft University of Technology, 20 May 2003. Advisor: J. Braat.

- W.H.J.J. van Staveren, "Analyses of Aircraft Responses to Atmospheric Turbulence", Delft University of Technology, 15 December 2003. Advisor: J.A. Mulder.

- E. de Vlugt, "Identification of Spinal Reflexes", Delft University of Technology, 25 May 2004. Advisor: F.C.T. van der Helm.

- D. van Hessem, "Stochastic Inequality Constrained Closed-Loop Model Predictive Control; with application to chemical process operation", Delft University of Technology, 3 June 2004. Advisor: O.H. Bosgra.

- I. Gavarini, "Initial Stage of Transition and Optimal COntrol of Streaks in Hagen-Poiseuille Flow", Delft University of Technology, 20 September 2004. Advisor: F.T.M. Nieuwstadt.

- M.L. Krieg, "Absolute Heterodyne Interferometer for Strongly Aspherical Mirrors", Delft University of Technology, 30 November 2004. Advisor: J. Braat.

- P. Mohanty, "Operational Modal Analysis in the Presence of Harmonic Excitations", Delft University of Technology, 10 January 2005. Advisor: D.J. Rixen.

- H.T. Grimmelius, "Condition Monitoring for Refrigeration Plants Based on Process Models", Delft University of Technology, 21 February 2005. Advisors: J. Klein Woud and H. van der Ree.

- M. Stork, "Model-Based Optimization of the Operation Procedure of Emulsification", Delft University of Technology, 7 November 2005. Advisor: O.H. Bosgra.

- S. Juliana, "Re-entry Flight Clearance", Delft University of Technology, 12 September 2006. Advisors: J.A Mulder and Q.P. Chu.

- A. R. Menon, "A Task Based Design Procedure and Modelling Approaches for Industrial Crystallization Processes", Delft University of Technology, 6 December 2006. Advisors: J. Grievink and P. Jansens.

- Y. Soetjahjo, "Mathematical Analysis of Dynamic Process Models". Delft University of Technology, 4 December 2006. Advisors: O.H. Bosgra and J. Grievink.

- R.J.C. van Ooteghem, "Optimal Control Design for a Solar Greenhouse". Wageningen University, 10 January 2007. Advisor: G. van Straten and L.G. van Willigenburg.

- M.J. van de Rijzen, "One-Step Etimation of Focusing Operators for 3D Seismic Data". Delft University of Technology, 28 June 2007. Advisor: A. Gisolf.

- L. Jabben, "Mechatronic Design of a Magnetically Suspended Rotating Platform". Delft University of Technology, 10 December 2007. Advisors: J. van Eijk and O.H. Bosgra.

- S.L. Speetjens, "Towards Model Based Adaptive Control for the Watergy Greenhouse - Design and Implementation". Wageningen University, 23 June 2008. Advisors: G. van Straten and J.D. Stigter.

- J. Rommelse, "Data Assimiliation in Reservoir Management". Delft University of Technology, 19 January 2009. Advisors: A.W. Heemink and J.D. Jansen.

- R. Markovinovic, "System-Theoretical Model Reduction for Reservoir Simulation and Optimization". Delft University of Technology, 9 February 2009. Advisor: J.D. Jansen.

- D.A.H. Laro, "Mechatronic Design of an Electromagnetically Levitated Linear Positioning System using Novel Multi-DoF Actuators". Delft University of Technology, 18 May 2009. Advisor: J. van Eijk.

- K.M. van Schagen, "Model-Based Control of Drinking-Water Treatment Plants". Delft University of Technology, 19 May 2009. Advisors: R. Babuska, L.C. Rietveld.

- R. Merry, "Performance Driven Control of Nano-Motion Systems". Eindhoven University of Technology, 25 November 2009. Advisors: M. Steinbuch, R. van de Molengraft.

- J.M.H. Karel, "A Wavelet Approach to Cardiac Signal Processing for Low-Power Hardware Applications". Maastricht University, 15 December 2009. Advisor: R.L.M. Peeters, R.L. Westra.

- S.K. Wattamwar, "Identification of Low Order Models for Large Scale Processes". Eindhoven University of Technology, 8 February 2010. Advisors: A.C.P.M. Backx, S. Weiland.

- T.A.E. Oomen, "System identification for robust and inferential control, with applications to ILC and precision motion systems". Eindhoven University of Technology, 19 April 2010. Advisors: O.H. Bosgra, M. Steinbuch.

- R. Lakerveld, "Development of a task-based design approach for solution crystallization". Delft University of Technology, 22 June 2010. Advisors: J. Grievink, P.J. Jansens.

- S.A. Vakili Ghahani, "Control-relevant upscaling". Delft University of Technology, 9 November 2010. Advisor: J.D. Jansen.

- N.J.M. van Dijk, "Active chatter control in high-speed milling processes". Eindhoven University of Technology, 15 February 2011. Advisors: H. Nijmeijer and N. van de Wouw.

- A. (Anton) Gryzlov, "Model-based estimation of multiphase flows in horizontal wells". Delft University of Technology, 21 February 2011. Advisor: R. Mudde.

- P. van Bree, "Control of Dynamics and Hysteresis in Electromagnetic Lenses". Eindhoven University of Technology, 25 May 2011. Advisors: P.P.J. van den Bosch and C.E. van Lierop.

- F. van Belzen, "Approximation of multi-variable signals and systems: a tensor decomposition approach". Eindhoven University of Technology, 6 June 2011. Advisors: S. Weiland and A.C.P.M. Backx.

- M.P. (Gosia) Kaleta, "Model-reduced gradient-based history matching". Delft University of Technology, 4 July 2011. Advisors: A.W. Heemink and J.D. Jansen.

- B. (Bogdan) Dorneanu, "Model reduction in chemical engineering. Case studies applied to process analysis, design and operation". Delft University of Technology. Delft University of Technology, 4 July 2011. Advisors: J. Grievink and S. Bildea.

- S. (Somnath) Kadam, "Monitoring and characterization of crystal nucleation and growth during batch crystallization". Delft University of Technology, 8 June 2012. Advisors: A.I. Stankiewicz and J.H.M. Kramer.

- D.J. (David) Rijlaarsdam, "Frequency domain based performance optimizaiton of systems with static nonlinearities". Eindhoven University of Technology and Free University of Brussels, 21 June 2012. Advisors: M. Steinbuch and J. Schoukens.

- J. (Jochem) Vissers, "Model based control and estimation methods for batch coooling crystallization processes". Eindhoven University of Technology, 16 October 2012. Advisors: A.C.P.M. Backx and S. Weiland.

- M.V. (Mariya) Krymskaya, "Quantification of the impact of data in reservoir modeling". Delft University of Technology, 22 May 2013. Advisors: A.W. Heemink and J.D. Jansen.

- H.R. (Hamid) Pourshaghaghi, "Workload prediction based on supply current tracking". Eindhoven University of Technology, 3 October 2013. Advisors: J. Pineda de Gyvez, R.H.J.M. Otten and L. Jozwiak.

- J.P. (Pieter) Schmal, "Dynamic chemical process modelling and validation - theory and application to industrial and literature case study". Delft University of Technology, 20 January 2014. Advisors: J.J. Heijnen and P.J.T. Verheijen.

- R. van Herpen, "Identification for control of complex motion systems". Eindhoven University of Technology, 27 January 2014. Advisors: M. Steinbuch, O.H. Bosgra, and T.A.E. Oomen.

- P.A. Forbes, "Heads Up - Sensorimotor control of the head-neck system". Delft University of Technology, 7 March 2014. Advisors: F.C.T. van der Helm, R. Happee and A. Schouten.

- C.H.A. Criens. "Air-path control of clean diesel engines", Eindhoven University of Technology, 13 March 2014. Advisors: M. Steinbuch and F.P.T. Willems.

- P.W.M. van Zutven. "Control and identification of bipedal humanoid robots: stability analysis and experiments", Eindhoven University of Technology, 13 May 2014. Advisors: H. Nijmeijer and A. Saccon.

- C. Cochior. "Model-Based Control for Professional Printing Systems", Eindhoven University of Technology, 15 May 2014. Advisors: P.P.J. van den Bosch and S. Weiland.

- M. Udenio. "Inventory dynamics and the bullwhip effect - studies in supply chain performance". Eindhoven University of Technology, 25 September 2014. Advisors: J.C. Fransoo and A.G. de Kok.

- N.Q. Tran. "Tuning model-based controllers or autonomous maintenance". Eindhoven University of Technology, 22 January 2015. Advisors: A.C.P.M. Backx and L. Ozkan.

- I. Aladagli. "Advanced CVT modeling and control". Eindhoven University of Technology, 26 January 2015. Advisors: M. Steinbuch and T. Hofman.

- T.P.J. (Tom) van der Sanden. " Control of semi-active suspension and steer-by-wire for comfort and handling". Eindhoven University of Technology, 23 June 2015. Advisors H. Nijmeijer and I. Besselink.

- D.T.E.H. (Dave) van Casteren. "Advanced 3-D Magnetic Field Modeling - Applied to a permanent magnet based vibration isolation system". Eindhoven University of Technology, 11 October 2016. Advisors E.SA. Lomonova and J.J.H. Paulides.

- F.M. (Frank) Drop. "Control-theoretic models of feedforward in manual control". Delft University of Technology, 15 November 2016. Advisors: M. Mulder and H.H. Bülthoff.

- M.A. (Michiel) Beijen. "Disturbance feedforward control for vibration isolation systems: analysis, design, and implementation". Eindhoven University of Technology, 5 April 2018. Advisors M. Steinbuch, H. Butler and M. Heertjes.

- R. (Robeert) Voorhoeve. "Identification for advanced motion control". Eindhoven University of Technology, 2 October 2018. Advisors M. Steinbuch and T.A.E. Oomen.

- X. (Xiaodong) Cheng. "Model reduction of network systems with structure preservation". University of Groningen, 2 November 2018. Advisor J. Scherpen.

- M. (Monika) Jozsa. "Relationship between Granger non-causality and network graphs of state-space representations". University of Groningen, 25 February 2019. Advisors K. Camlibel and M. Petreczky.

- C. (Chunguang) Chen. "Interfacial aspects involved in the operation of Si-based lithium-ion microbatteries". Eindhoven University of Technology, 29 October 2019. Advisors P. Notten, R.-A. Eichel and D. Danilov.

- D. (Dominique) Joubert, "Structural identifiability of large systems biology models". Wageningen University, 27 January 2020. Advisors: J. Molenaar and H. Stigter.

- H. (Henk) van Waarde, "From data and structure to models and controllers". University of Groningen, 20 November 2020. Advisors: K. Camlibel and P. Tesi.

- C.A. (Chyannie) Fahdzyana, "Integrated plant and control design of CVT-equipped electric powertrains - a co-design optimization framework". Eindhoven University of Technology, 12 October 2021. Advisors: T. Hofman, M.R.U. Salazar and M.C.F. Donkers.

- J.M.F. (Joey) Reinders, "Smart mechanical ventilators". Eindhoven University of Technology, 2 February 2022. Advisors: W.P.M.H. Heemels, N. van de Wouw and T.A.E. Oomen.

- I. (Ismail) Senös, "Approximate inference by variational message passing for hierarchical dynamical systems". Eindhoven University of Technology, 24 June 2022. Advisors: A. de Vries, T.W. van de Laar and C. Mathys.

- M.F. (Fahim) Shakib, "Data-driven modeling and complexity reduction for nonlinear systems with stability guarantees". Eindhoven University of Technology, 23 November 2022. Advisors: H. Nijmeijer, N. van de Wouw, A Pavlov and A.Y. Pogromsky.

- A.A. (Rian) Bachnas, "Advancing process control using orthonormal basis functions". Eindhoven University of Technology, 16 February 2023. Advisors: S. Weiland and R. Tóth.

- R.J.R. (Ricky) van Kampen, "Frequency domain estimation of spatially varying transport coefficients". Eindhoven University of Technology, 3 April 2023. Advisors: H.J. Zwart, S. Weiland and M. van Berkel.

- E.A. (Edwin) Ross, "Monitoring chlorate through sensor data fusion = A digital twin for electrochlorinators". Wageningen University and Research Center, 26 January 2024. Advisors: K.J. Keesman, J.H. Stigter and R.M. Wagterveld.

- K. Classens, Eindhoven University of Technology, 21 March 2024. Advisors T.A.E. Oomen and W.P.M.H. Heemels.

6.2 University committees

- Member of the Department Committee on Research, Faculty of Mechanical Engineering and Marine Technology, Delft University of Technology, 1990-1996.

- Member of the TUD Rector's Taskforce on Academic Staff Career Development, 2005.

- Initiator and chairman of the Education Committee for the TUD MSc program Systems and Control, 2003-2011.

- Member of the TUD Network on Fundamental Sciences, 2008-2010.

- Chair of the TU/e MSc Systems and Control Education Committee, 2012-2022.

- Member of the TU/e Committee Scientific Integrity, 2013 - 2021.

- Member of the Taskforce for the TU/e High Tech Systems Center 2013-2014.

- Member of the scientific board of the Eindhoven Artificial Intelligence Systems Institute (EAISI), 2019 - 2024.

6.3 National committees and boards

- Member of the board of the Dutch Institute of Systems and Control (DISC); Dutch National Graduate School; 1 March 1999 - 31 December 2004.

- Member of the board of PATO (Post Academic Technical Education), 1998 - 2010.

- Scientific Director of the Dutch Institute of Systems and Control (DISC), including the national graduate school "Systems and Control", 2005-2014, accredited by the Dutch Royal Academy of Sciences.

- Delft project leader and initiator of the 3TU Center of Excellence "Intelligent Mechatronic Systems", for which government funding of 50M€(over 5 years, 2007-2011) has been granted.

7 Teaching activities

7.1 (Under)graduate teaching

- Participation in teaching *Linear Models in System Identification* to fourth-year electrical engineering students; Eindhoven University of Technology, 1983, 1984, 1985.

- Development and teaching of the course *System Identification* (28 hrs.) with computer-based excercises, MSc programmes Mechanical Engineering and Systems and Control. Delft University of Technology, 1990-now. An accompanying manuscript has been developed.

- Development and teaching of a basic control course for undergraduate Applied Physics students accompanied by laboratory experiments, 2000 (together with R. Banning), 2001 - 2004.

- Development and teaching of a course "Stochastic Signal Analysis" for BSc students in Applied Physics (3rd year, 28 hrs.), 2001 - 2011.

- Development and teaching of a course "Signal Analysis" for BSc students in Mechanical Engineering (3rd year, 28 hrs.), 2005 - 2011.

- Teaching of a course "Control Theory" for MSc students in Systems and Control (1st year MSc, 42 hrs.), 2010.

- Development and teaching of a course "System Identification" for MSc students in EE, ME, AU and S&C (1st year MSc, 28 hrs), 2012 - .

- Development and teaching of a course "Systems" for BSc students in Electrical Engineering (1rd year, 32 hrs.), 2013 - 2014.

- Development of teaching of a course "Control Systems" for BSc students in Electrical Engineering and Automotive Systems (3rd year, 32 hrs), 2014-2019.

- Supervision of numerous M.Sc.-students in their final-year project, on a wide variety of subjects within the area of modelling, identification and control and with applications in both process control and mechanical servo systems control.

7.2 Postgraduate Teaching

- Development and teaching of the course *System Identification* (20hrs.), together with dr. Ch. Heij, in the Dutch Graduate School of Systems and Control, for Dutch Ph.D.-students, (1993, 1994, 1996, 1997), together with Prof. M. Gevers (1998), together with Prof. J. Schoukens (2001).

- Course *System Identification for Control* (16 hrs), in the Dutch Graduate School of Systems and Control, together with Dr. X. Bombois, 2002/2003, 2004, 2005/2006, 2007, 2008, 2010/2011, 2012/2013, 2015/2016.
  2018: jointly with Prof. J. Schoukens, dr. G. Bottegal and dr. X. Bombois.
  2020: jointly with Prof. J. Schoukens and dr. G. Bottegal.

7.3 Post academic / Industrial courses

- Organizer and teacher of industrial course *System Identification for Control Design*, offered by PATO, The Hague, The Netherlands, 4-6 November 1996.

- Organizer and teacher of industrial courses *Introduction to System Identification*, offered by PATO, The Hague, The Netherlands, 15-17 April 1998 and 20-22 September 2000.

- Organizer and teacher of industrial courses *From Experimental Measurement Data to Dynamic Model*, offered by PATO, The Hague, The Netherlands, 18-20 September 2002.

8 Auxiliary

- Editor of *Selected Topics in Identification, Modelling and Control*. Progress report on research activities in the Mechanical Engineering Systems and Control Group at Delft University of Technology. Delft University Press, Delft. Between 1990 and 2001, 12 volumes have been published.

8.1 Copyrighted Products

- DUMSI - Software package for off-line multivariable system identification. Programmed in $\mathrm{FORTRAN}$-77 under $\mathrm{VAX/VMS}$ operating system, 1989.

- CLOSID - Matlab toolbox for closed-loop identification, November 1996 (together with R.A. de Callafon and E.T. van Donkelaar).

- FREQID - Matlab toolbox for frequency domain identification, November 1996 (together with R.A. de Callafon).

- ORTTOOL - Matlab toolbox for identification of models with orthogonal basis functions (together with P.S.C. Heuberger).

- SYSDYNET - Matlab app and toolbox for data-driven modeling in dynamic networks.