

## Publication list, Rafael Wisniewski

### Journals:

1. Wisniewski, R., C. Sloth, *Converse Barrier Certificate Theorems*, In Press I E E E Transactions on Automatic Control, 2016.
2. Bastug, M., M. Petreczky, R. Wisniewski, J.J. Leth, *Model Reduction by Nice Selections for Linear Switched Systems*, In press I E E E Transactions on Automatic Control, 2016.
3. Barradas Berglind, J.D.J., R. Wisniewski, *Representation of Fatigue for Wind Turbine Control*, In press Wind Energy, 2016.
4. Odgaard, P.F., F.L.S. Larsen, R. Wisniewski, T. Hovgaard, *On Using Pareto Optimality to Tune a Linear Model Predictive Controller for Wind Turbines*, Renewable Energy, vol. 87, no. Part 2, pp. 884-891, 2016
5. Cortes, J., V. Svikovic, P. Alou, J.A. Oliver, J.A. Cobos, R. Wisniewski, *Accurate Analysis of Subharmonic Oscillations of V-2 and (Vic)-I-2 Controls Applied to Buck Converter*, I E E E Transactions on Power Electronics, vol. 30, no. 2, s. 1005-1018, 2015.
6. Barradas Berglind, J.D.J., R. Wisniewski, M. Soltani, *Fatigue Damage Estimation and Data-based Control for Wind Turbines*, I E T Control Theory and Applications, vol. 9, no. 7, pp. 1042 – 1050, 2015.
7. Shafiei, S.E., T. Knudsen, R. Wisniewski, P. Andersen, *Data-Driven Predictive Direct Load Control of Refrigeration Systems*, IET Control Theory and Applications, vol. 9, no. 7, pp. 1022 - 1033, 2015.
8. Wisniewski, R., J.J. Leth, J.G. Rasmussen, *Analysis of synchronization in a supermarket refrigeration system*, Journal of Control Theory and Applications, vol. 12, no. 2, pp. 154-162, 2014.
9. Juelsgaard, M., P. Andersen, R. Wisniewski, *Distribution Loss Reduction by Household Consumption Coordination in Smart Grids*, I E E E Transactions on Smart Grid, vol. 5, no. 4, pp. 2133-2144, 2014.
10. Juelsgaard, M., R. Wisniewski, J.D. Bendtsen, *Fault Tolerant Distributed Portfolio Optimization in Smart Grids*, International Journal of Robust and Nonlinear Control, vol. 24, no. 8-9, pp. 1317-1340, 2014.
11. Jensen, T.N., R. Wisniewski, C. De Persis, C. Kallesøe, *Output Regulation of Large-Scale Hydraulic Networks with Minimal Steady State Power Consumption*, Control Engineering Practice, vol. 22, pp. 103-113, 2014
12. Soleimanzadeh, M., R. Wisniewski, A. Brand, *State-space representation of the wind flow model in wind farms*, Wind Energy, vol. 17, no. 4, pp. 627-639, 2014.
13. Leth, J., R. Wisniewski, *Local analysis of hybrid systems on polyhedral sets with state-dependent switching*, International Journal of Applied Mathematics and Computer Science, vol. 24, no. 2, pp. 341-355, 2014.
14. Soken, H.E., S.I. Sakai, R. Wisniewski, *In-orbit estimation of time-varying residual magnetic moment*, IEEE Transactions on Aerospace and Electronic Systems, vol. 50, no. 4, pp. 3126-3136, 2014.
15. Ahmadi, M., H. Mojallalia, R. Wisniewski, *Guaranteed Cost  $H_\infty$  Controller Synthesis for Switched Systems Defined on Semi-algebraic Sets*, Nonlinear Analysis: Hybrid Systems, vol. 11, no. 1, pp. 37-56, 2014.
16. De Persis, C., T. Nørgaard Jensen, R. Ortega, R. Wisniewski, *Output Regulation of Large-Scale Hydraulic Networks*, IEEE Transactions on Control Systems Technology, vol. 22, no. 1, 2014.
17. Tahavori, M., C. Skovmose Kallesøe, J.J. Leth, R. Wisniewski, *Optimal Control of Nonlinear Hydraulic Networks in the Presence of Disturbance*, Nonlinear Dynamics, vol. 75, no. 3, 2014.

18. Nørgaard, T., R. Wisniewski, *Global stabilization of large-scale hydraulic networks with quantized and positive proportional controls*, IET Control Theory and Applications, vol. 7, no. 3, 2013.
19. Soltani, M., T. Knudsen, M. Svenstrup, R. Wisniewski, P. Brath, R. Ortega, K. Johnson, *Estimation of Rotor Effective Wind Speed: A Comparison*, IEEE Transactions on Control Systems Technology, vol. 21, no. 4, pp. 1155-1167, 2013.
20. Petreczky, M., R. Wisniewski, J. J. Leth, *Balanced Truncation for Linear switched Systems*, Nonlinear Analysis: Hybrid Systems, vol. 10, no. 11, pp. 4-20, 2013.
21. Soleimanzadeh M., R. Wisniewski, K. Johnson, *A Distributed Optimization Framework for Wind Farms*, Journal of Wind Engineering and Industrial Aerodynamics, vol. 123, part A, pp. 88-98, 2013.
22. Nørgaard Jensen, T, R. Wisniewski, C. de Persis, C. Skovmose Kallesøe, *Output Regulation of Large-scale Hydraulic Networks with Minimal Steady State Power Consumption*, Control Engineering Practice, vol. 22, no. 1, pp. 103-103, 2013.
23. Sloth, Ch., R. Wisniewski, *Complete Abstractions of Dynamical Systems by Timed Automata*, Nonlinear Analysis: Hybrid Systems, vol. 7, no. 1, pp. 80-100, 2013.
24. Tahavori, M., T.N. Jensen, C. Kallesøe, J. Leth, R. Wisniewski, *Toward Model-Based Control of Non-linear Hydraulic Networks*, Journal of Vibration and Control, vol. 19, no. 14, pp. 2145-2153, 2013.
25. Juelsgaard, M., J. D. Bendtsen, R. Wisniewski, *Utilization of Wind Turbines for Up-regulation of Power Grids*, IEEE Transaction on Industrial Electronics, vol. 60, no. 7, pp. 2851-2863, 2013.
26. Kragelund, M., J.J. Leth, R. Wisniewski, U. Jönsson, *Profit Maximization of a Power Plant, Optimal Usage of Coal, Gas, and Oil in Power Plant*, European Journal of Control, vol. 18, no.1, pp. 38-54, 2012.
27. Leth, J., R. Wisniewski, *On Formalism and Stability of Switched Systems*, Journal of Control Theory and Applications, vol. 10, no. 2, pp. 176-183, 2012.
28. Soleimanzadeh, M., R. Wisniewski, S. Kanev, *An Optimization Framework for Load and Power Distribution in Wind Farms*, Journal of Wind Engineering and Industrial Aerodynamics, vol. 107-108, pp. 256-262, 2012.
29. Shaker, H.R., R. Wisniewski, *Model Reduction of Switched Systems Based on Switching Generalized Gramians*, International Journal of Innovative Computing, Information and Control, vol. 8, no. 7, pp. 5025-5044, 2012.
30. Ahmadi M, H. Mojallali, R. Wisniewski, *Robust  $H_\infty$  Control of Uncertain Switched Systems Defined on Poyhedral Sets with Filippov Solutions*, in press, ISA Transactions, vol. 51, no. 6, pp. 722-731, 2012.
31. Shaker, H., R. Wisniewski, *Generalized Gramian Framework for Model/Controller Order Reduction of Switched Systems*, International Journal of Systems Science, vol. 42, no. 18, pp. 1277-1291, 2011.
32. Nørgaard, T., R. Wisniewski, *Global Practical Stabilization of Large-scale Hydraulic Networks*, IET Control Theory and Applications, vol. 5, no. 11, 2011.
33. Soleimanzadeh, M, R. Wisniewski, *Controller Design for a Wind Farm, Considering both Power and Load Aspects*, Mechatronics, vol. 21, no. 4, p. 720-727, 2011.
34. Wisniewski, R., Ch. Sloth, *Abstraction of Dynamical Systems by Timed Automata, Modeling, Identification and Control*, vol. 32, no. 2, 2011.
35. Vinther, K., K. Fulsang Jensen, J. A. Larsen, R. Wisniewski, *Inexpensive CubeSat Attitude Estimation Using Quaternions and Unscented Kalman Filtering*, Automatic Control in Aerospace, vol. 4, no. 1, 2011.
36. Sloth, Ch., R. Wisniewski, *Verification of Continuous Dynamical Systems by Timed Automata*, Formal Methods in System Design, vol. 39, no. 1, pp. 47-82.

37. Soltani M., R. Izadi-Zamanabadi, R. Wisniewski, Reliable Control of Ship-mounted Satellite Tracking Antenna, *IEEE Transactions on Control Systems Technology*, vol. 19, no. 1, pp. 221-228, 2011.
38. Chen, L., R. Wisniewski, De-synchronization of the Distributed Refrigeration System, *Advanced Materials Research*, 139-141:2221–2224, 2010.
39. Kragelund, M., J.J. Leth, R. Wisniewski, Optimal Usage of Coal, Gas, and Oil in Power Plant, *IET Control Theory and Application*, vol. 4, no. 2, pp. 282-293, 2010.
40. Shaker, H.R., R. Wisniewski, A. Garulli, Switched Systems Reduction Framework Based on Convex Combination of Generalized Gramians, *Journal of Control Science and Engineering*, vol. 2009, pp.35-46, 2009.
41. Shaker, H.R., R. Wisniewski, Discussion: Model Reducion of Large-scale Discrete Plants with Specified Frequency-domain Balanced Structure, *Journal of Dynamic Systems, Journal of Dynamic Systems*, vol. 131, no. 6, 2009.
42. Wisniewski R., M. Raussen, *Towards a Geometric Analysis of Concurrent Systems*, *Acta Informatica*, vol. 43, no. 7, pp. 501-519, 2007.
43. Wisniewski R., P. Kulczycki, *Slew Maneuver Control for Spacecraft Equipped with Star Camera and Reaction Wheels*, *Control Engineering Practice*, vol. 13, no. 3, pp. 349-356, 2005.
44. Kulczycki P., R. Wisniewski, P. Kowalski, K. Krawiec, *Hard and Soft Sub-Optimal Controllers for Mechanical Systems with Uncertain Mass*, *Control and Cybernetics*, vol. 34, no. 4, pp. 573-587, 2005.
45. Wisniewski R., J. Stoustrup, *Periodic  $H_2$  Synthesis for Spacecraft Attitude Control with Magnetometers*, *Journal of Guidance, Control, and Dynamics*, vol. 27, no. 5, pp. 874-881, 2004.
46. Wisniewski R., P. Kulczycki, *Euler-Poincare Reduction of Externally Forced Rigid Body Motion*, *Control and Cybernetics*, vol. 33, no. 2, pp. 297-310, 2004.
47. Wisniewski R., P. Kulczycki, *Rotational Motion Control of a Spacecraft*, *IEEE Transactions on Automatic Control*, vol. 48, no. 4, pp. 643-646, 2003.
48. Kulczycki P., R. Wisniewski, *Fuzzy Controller for a System with Uncertain Load*, *Fuzzy Sets and Systems*, vol. 131, no. 2, pp. 185-195, 2002.
49. Wisniewski R., *Discussion on Optimal Magnetic Momentum Control for Inertially Pointing Spacecraft*, *European Journal of Control* vol. 7, no.1, pp. 40-42, 2001.
50. Wisniewski R., *Linear Time Varying Approach to Satellite Attitude Control Using Only Electromagnetic Actuation*, *Journal of Guidance, Control, and Dynamics*, vol. 23, no. 4, pp. 640-647, 2000.
51. Wisniewski R., M. Blanke, *Three-axis Attitude Control Based on Magnetic Torquing*, *Automatica*, vol. 35, no. 7, pp. 1201-1214, 1999.

#### **Patents:**

1. Wisniewski, R., C. Thybo, A Method for Controlling A Refrigerant Distribution, Application No. 08758222.7-2301, Patent No. DK2008000213, DKA 200700846, 2008.
2. Wisniewski, R., C. Thybo, Method for Controlling a Vapour Compression System, Application No. 08758223.5-2301, Patent No. DK2008000214, DKA 200700847, 2008.

#### **Conferences:**

1. Wisniewski, R., C. Sloth, M. Bujorianu, N. Piterman, *Safety Verification of Piecewise-Deterministic Markov Processes*, Proceedings of the 19th ACM International Conference on Hybrid Systems: Computation and Control, 2016.

2. Leth, T., C. Sloth, R. Wisniewski, C.S. Kallesøe, *Stability of Drinking Water Distribution Network*, Proceedings of 15th annual European Control Conference, 2016.
3. Pedersen, R, C. Sloth, R. Wisniewski, *Active Power Management in Power Distribution Grids: Disturbance Modeling and Rejection*, Proceedings of 15th annual European Control Conference, 2016.
4. Pedersen, R., C. Sloth, R. Wisniewski, *Verification of Power Grid Voltage Constraint Satisfaction - a Barrier Certificate Approach*, Proceedings of 15th annual European Control Conference, 2016.
5. Olderog, E-R., A.P. Ravn, R. Wisniewski, *Linking spatial and dynamic models for traffic maneuvers*, 54th Annual Conference on Decision and Control (CDC), 2015 IEEE 54th Annual Conference on, pp. 6809-6816, 2015.
6. Bastug M., M, M. Petreczky, R. Toth, R. Wisniewski, J.J. Leth, D. Efimov, *Moment Matching Based Model Reduction for LPV State-Space Models*, Decision and Control (CDC), 2015 IEEE 54th Annual Conference on, pp. 5334 - 5339, 2015.
7. Minko, T., R. Wisniewski, J.D. Bendtsen, R. Izadi-Zamanabadi, *Cost Efficient Optimization Based Supervisory Controller for Supermarket Subsystems with Heat Recovery*, European Control Conference (ECC), pp. 2321 - 2327, 2015.
8. Barradas Berglind, J.D.J., R. Wisniewski, M. Soltani, *Fatigue Load Modeling and Control for Wind Turbines based on Hysteresis Operators*, American Control Conference (ACC), pp. 3721-3727, 2015.
9. Sloth, C., R. Wisniewski, *Towards Safe Robotic Surgical Systems*, Recent Advances in Mechanism Design for Robotics: Proceedings of the 3rd IFToMM Symposium on Mechanism Design for Robotics. Springer, pp. 165-175, 2015.
10. Odgaard, P.F., T. Knudsen, R. Wisniewski, T. Bak, *Optimized Control Strategy For Over Loaded Offshore Wind Turbines*, Proceedings of EWEA Offshore 2015, European Wind Energy Association (EWEA OFFSHORE), 2015.
11. Totu, L.C., R. Wisniewski, J.J. Leth, *Modeling Populations of Thermostatic Loads with Switching Rate Actuation*, Proceedings 4th Workshop on Hybrid Autonomous Systems (HAS 2014), vol. 174, EPTCS, pp. 13-21, 2015.
12. Kallesøe, C., T.N. Jensen, R. Wisniewski, *Adaptive Reference Control for Pressure Management in Water Networks*, Control Conference (ECC), 2015 European, pp. 3268 – 3273, 2105.
13. Barradas Berglind, J.D.J., R. Wisniewski, *Control of Linear Systems with Preisach Hysteresis Output with Application to Damage Reduction*, Control Conference (ECC), 2015 European, pp. 3572 – 3578, 2015.
14. Pedersen, R., C. Sloth, G. Bruun Andresen, R. Wisniewski, *DiSC: A Simulation Framework for Distribution System Voltage Control*, European Control Conference (ECC), pp. 1056 – 1063, 2015.
15. Sloth, C., R. Wisniewski, *Safety Analysis of Stochastic Dynamical Systems*, I F A C Workshop Series, vol 48, nr. 27, s. 62-67, 2015.
16. Sloth, C., R. Wisniewski, *Stability Verification for Energy-Aware Hydraulic Pressure Control via Simplicial Subdivision*, Control Conference (ECC), 2015 European, p. 2694-2699, 2015.
17. Leth, J.J., R. Wisniewski, J.G. Rasmussen, H. Schiøler, *Stochastic Analysis of Synchronization in a Supermarket Refrigeration System*, 4th Workshop on Hybrid Autonomous Systems 2014 (HAS 2014). vol. 174, s. 40-50. Electronic Proceedings in Theoretical Computer Science, vol. 174, 2015.
18. Pedersen, .R, C. Sloth, C, R. Wisniewski, T. Green, *Supermarket Defrost Cycles As Flexible Reserve*, IEEE Conference on Control Applications (CCA), pp. 744 – 749, 2015.
19. Bastug, M., M. Petreczky, R. Wisniewski, J.J. Leth, *Model Reduction by Moment Matching for Linear Switched Systems*, American Control Conference (ACC), pp. 3942 – 3947, 2014.

20. Bastug, M., M. Petreczky, R. Wisniewski, J.J. Leth, J-J, *Model Reduction of Linear Switched Systems by Restricting Discrete Dynamics*, Annual Conference on Decision and Control, 2014 IEEE 53<sup>rd</sup>, pp. 4422-4427, 2014.
21. Juelsgaard, M., C. Sloth, R. Wisniewski, J.R. Pillai, *Loss Minimization and Voltage Control in Smart Distribution Grid*, Proceedings of the 19th IFAC World Congress, pp. 4030-4037, 2014.
22. Juelsgaard, M., A. Teixeira, M. Johansson, R. Wisniewski, J.D. Bendtsen, *Distributed Coordination of Household Electricity Consumption*, Control Applications (CCA), 2014 IEEE International Conference on, pp. 33-40, 2014.
23. Laurijsse, M., R. Wisniewski, S. Weiland, *Optimizing safety supervisors for wind turbines using barrier certificates*, Proceedings of the 19th IFAC World Congress, IFAC Publisher, pp. 11450-11457, 2014.
24. Sloth, C., R. Wisniewski, *Robust Stability of Switched Systems*, Proceedings of Decision and Control, 2014 IEEE 53rd Conference on., pp. 4685-4690, 2014.
25. Sloth, C., R. Wisniewski, *Control to Facet for Polynomial Systems*, Proceedings of the 17th ACM international conference on Hybrid Systems: Computation and Control. Association for Computing Machinery, pp. 123-132, 2014.
26. Totu, L.C., R. Wisniewski, *Demand Response of Thermostatic Loads by Optimized Switching-Fraction Broadcast*, Proceedings of the 19th IFAC World Congress, vol. 19, IFAC Publisher, pp. 9956-9961, 2104.
27. Kallesøe, C., T.N. Jensen, R. Wisniewski, *A Distributed Algorithm for Energy Optimization in Hydraulic Networks*, Proceedings of the 19th IFAC World Congress, vol. 19, IFAC Publisher, pp. 11926-11931, 2014.
28. Cortes, J, V. Svikovic, P. Alou, J. Oliver, J.A. Cobos, R. Wisniewski, *Limits of the frequency response for the analysis of ripple-based controllers*, Proceedings of Applied Power Electronics Conference and Exposition (APEC), Twenty-Eighth Annual IEEE 6520677, IEEE Press, pp. 2698-2705, 2013.
29. Wisniewski, R., Ch. Sloth, *Converse Barrier Certificate Theorem*, Proceedings of 51st IEEE Conference on Decision and Control, Florence, December, 2013.
30. Wisniewski, R., Ch. Sloth, *Completeness of Lyapunov Abstraction*, Proceedings of Third International Workshop on Hybrid Autonomous Systems (HAS 2013), Electronic Proceedings of Computer Science, pp. 26-42, 2013.
31. Wisniewski, R., M. Svenstrup, A. S. Pedersen, Ch. S. Steiniche, *Certificate for Safe Emergency Shutdown of Wind Turbines*, Proceedings of American Control Conference, Washington, June 2013.
32. Adegas, F.D., R. Wisniewski, L.F.S. Larsen, *Gain-Scheduled Model Predictive Control of Wind Turbines using Laguerre Functions*, Proceedings of American Control Conference, Washington, June 2013.
33. Totu, L.K., J.J. Leth, R. Wisniewski, *Control for Large Scale Demand Response of Thermostatic Loads*, Proceedings of American Control Conference, Washington, June 2013.
34. Juelsgaard, M., L.K. Totu, S.E. Shafiei, R. Wisniewski, J. Stoustrup, *Control Structures for Smart Grid Balancing*, Proceedings of the 4th European Innovative Smart Grid Technologies Conference, Copenhagen, 2013.
35. Tahavori, M., C. Skovmose Kallesøe, J.J. Leth, R. Wisniewski, *Nonlinear Non-convex Optimization of Hydraulic Networks*, Proceedings of IEEE International Conference on Control Applications, Hyderabad, India, 2013.
36. Juelsgaard, M., P. Andersen, R. Wisniewski, *Minimization of Distribution Grid Losses by Consumption Coordination*, Proceedings of IEEE International Conference on Control Applications, Hyderabad, India, 2013.

37. Juelsgaard, M., P. Andersen, R. Wisniewski, *Stability Concerns for Indirect Consumer Control in Smart Grids*, Proceedings of European Control Conference, Zurich, 2013.
38. Sloth, Ch., R. Wisniewski, G. J. Pappas, On the Existence of Compositional Barrier Certificates, Proceedings of 51st IEEE Conference on Decision and Control, Maui, Hawaii, December, 2012.
39. Leth, J., J. G. Rasmussen, H. Schiøler, R. Wisniewski, A Class of Stochastic Hybrid Systems with State-Dependent Switching Noise, Proceedings of 51st IEEE Conference on Decision and Control, Maui, Hawaii, December, 2012.
40. Ahmadi, M., H. Mojallali, R. Wisniewski, R. Izadi-Zamanabadi, Robust Stability and  $H_\infty$  Control of Uncertain Piecewise Linear Switched Systems with Filippov Solutions, Proceedings of IEEE Multi-Conference on Systems and Control, Dubrovnik, October, 2012.
41. Soleimanzadeh, M., R. Wisniewski, S. Kanev, An Optimal Control Scheme to Minimize Loads in Wind Farms, Proceedings of IEEE Multi-Conference on Systems and Control, Dubrovnik, October, 2012.
42. Sloth, Ch., R. Wisniewski, Abstractions for Mechanical Systems, Proceedings of 4th IFAC Workshop on Lagrangian and Hamiltonian Methods for Nonlinear Control, Bertinoro, Italy, August, 2012.
43. Tahavori, M., C. Kallesøe, J. Leth, R. Wisniewski, Modeling of Water Supply Systems: Circuit Theoretic Approach, Proceedings of 7th IEEE Conference on Industrial Electronics and Applications, Singapore, July, 2012.
44. Petreczky, M., R. Wisniewski, J.J. Leth, Theoretical Analysis of Balanced Truncation for Linear Switched Systems, Proceedings of Analysis and Design of Hybrid Systems, Eindhoven, June, 2012.
45. Ahmadi, M., H. Mojallali, R. Wisniewski, R. Izadi-Zamanabadi, Robust Stability Analysis of Nonlinear Switched Systems with Filippov Solutions, Proceedings of 7th IFAC Symposium on Robust Control Design, Aalborg, June, 2012.
46. Juelsgaard, M., J.D. Bendtsen, R. Wisniewski, Robust Utilization of Wind Turbine Flexibility for Grid Stabilization, Proceedings of 7th IFAC Symposium on Robust Control Design, Aalborg, June, 2012.
47. Soltani, M., R. Izadi-Zamanabadi, R. Wisniewski, W. Belau, S. Le Gonidec, Robust Parametric Fault Estimation in A Hopper System, Proceedings of 7th IFAC Symposium on Robust Control Design, Aalborg, June, 2012.
48. Sloth, Ch., G.J. Pappas, R. Wisniewski, Compositional Safety Analysis using Barrier Certificates, Proceedings of Hybrid Systems: Computation and Control, Beijing, April, 2012.
49. Wisniewski, R. J.J. Leth, Convenient Model for Systems with Hystereses-Control, Proceedings of IEEE Conference on Decision and Control, Orlado, December, 2011.
50. Wisniewski R., Robustness in dynamical and control systems, Proceedings of Industrial Embedded Systems (SIES) 6th IEEE International Symposium, Västerås, June, 2011.
51. Soltani, M., R. Wisniewski, P. Brath, S. Boyd, Load Reduction of Wind Turbines Using Receding Horizon Control, Proceedings of IEEE International Conference on Control Applications, Denver, September, 2011.
52. Soleimanzadeh, M., R. Wisniewski, An Optimization Framework for Load and Power Distribution in Wind Farms, Proceedings of IFAC World Congress, August, 2011.
53. Nørgaard, T., R. Wisniewski, Global Stabilization of Large-scale Hydraulic Networks using Quantized Proportional Control, Proceedings of IFAC World Congress, August, 2011.
54. Sloth, Ch., R. Wisniewski, Algorithmic Approach to Abstracting Linear systems by Timed Automata, Proceedings of IFAC World Congress, August, 2011.
55. Sloth, Ch., R. Wisniewski, Abstraction of Continuous Dynamical Systems Utilizing Lyapunov Functions, Proceedings of IEEE Conference on Decision and Control, Atlanta, December, 2010.

56. Kragelund, M., J.J. Leth, R. Wisniewski, Optimal Input Strategy for Plug and Play Process Control Systems, Proceedings of IEEE Conference on Decision and Control, Atlanta, December, 2010.
57. Kragelund, M., J.J. Leth, R. Wisniewski, Performability Measure for a Power Plant, Proceedings of IEEE Multi-conference on Systems and Control, Yokohama, September, 2010.
58. Soleimanzadeh, M., R. Wisniewski, Wind Speed Deficit Model in a Wind Farm using Finite Volume Method, Proceedings of American Control Conference, Baltimore, USA, June/July, 2010.
59. Soleimanzadeh, M., R. Wisniewski, Wind Speed Dynamical Model in a Wind Farm, Proceedings of IEEE International Conference on Control & Automation (ICCA'10) Xiamen, China, June, 2010.
60. Wisniewski, R., L. Chen, L.F.S. Larsen, Synchronization Analysis of the Supermarket Refrigeration System, Proceedings of 48th IEEE Int. Conference on Decision and Control, Shanghai, December, 2009.
61. Shaker, H.R., R. Wisniewski, On Exact/Approximate Reduction of Dynamical Systems Living on Piecewise linear Partition. Proceedings of IMACS IFAC Symposium on Mathematical Modeling - 6th MATHMOD, Vienna, 2009
62. Kulczycki, P., R. Wisniewski, P. Kowalski, K. Krawiec, Hard and Soft Sub-Time-Optimal Robust Controllers 2009. Proceedings of 9th IFAC Symposium on Robot Control SYROCO 2009, Gifu, Japan, September 2009.
63. Shaker, H.R., R. Wisniewski, Generalized Gramian framework for Model Reduction of Switched Systems, Proceedings of European Control Conference, Budapest, August, 2009.
64. Kragelund, M., R. Wisniewski, Selecting Actuator Configuration for Benson Boiler, Production Economics, Proceedings of European Control Conference, Budapest, August, 2009.
65. Shaker, H.R., R. Wisniewski, S. Tabatabaeipour, Switched Controller Order Reduction, Proceedings of 7th International Conference on Control and Automation, Christchurch, New Zealand, December, 2009.
66. Kragelund, M., U. Jönsson, J.J. Leth, R. Wisniewski, Optimal Production Planning of a Power Plant, Proceedings of 7th International Conference on Control and Automation, Christchurch, New Zealand, December, 2009.
67. Chen, L., T. Green, L.F.S. Larsen, R. Wisniewski, R. Izadi-Zamanabadi, Performance Monitoring in Supermarket Refrigeration Systems - Synchronization of Refrigerated Display Cases, Proceedings of International Symposium on Advanced Control of Chemical Processes ADCHEM 2009, Istanbul, Turkey, July 2009.
68. Larsen, J.A., R. Wisniewski, Combinatorial Control Systems, Proceedings of 7th International Workshop on Robot Motion and Control RoMoCo'09, Czerniejewo, Poland, June, 2009.
69. Shaker, H.R., R. Wisniewski, On Exact/approximate Reduction of Dynamical Systems Living on Piecewise Linear Partition, Proceedings of IMACS IFAC Symposium on Mathematical Modelling - 6th MATHMOD, Vienna, Austria, February 2009.
70. Larsen, J.A., R. Wisniewski, J.D. Grunnet, Combinatorial Hybrid Systems, Proceedings of IEEE International Symposium on Computer-Aided Control System Design, San Antonio, Texas, September 2008.
71. Wisniewski R., L.F.S. Larsen, Method for Analysis of Synchronisa
72. tion Applied to Supermarket Refrigeration System, Proceedings of IFAC World Congress, Seoul, July 2008.
73. Kragelund M., R. Wisniewski, T. Mølbak, R.J. Nielsen, K. Edlund, On Propagating Requirements and Selecting Fuels for a Benson Boiler, Proceedings of IFAC World Congress, Seoul, July 2008.
74. Wisniewski R., J. A. Larsen, Combinatorial Vector Fields for Piecewise Affine Control

- Systems, Proceedings of IFAC World Congress, Seoul, July 2008.
75. Larsen, J.A, R. Wisniewski, Automatic Fault Tolerant Control System Design; Application to Attitude Control Systems for Satellites, Proceedings of F. Landis Markley Astronautics Symposium, Cambridge, Maryland, June-July 2008.
  76. Grunnet J.D., T. Bak, J.D. Bendtsen, J.A. Larsen, R. Wisniewski, A Piecewise Affine Hybrid Systems Approach to Fault Tolerant Satellite Formation Control, Proceedings of 3rd International Symposium on Formation Flying, Mission and Technologies, Noorwijk, Holland, April 2008.
  77. Larsen, J.A., R. Wisniewski, R. Izadi-Zamanabadi, *Hybrid Control and Verification of a Pulsed Welding Process*, Hybrid Systems: Computation and Control, Lecture Notes in Computer Science, LNCS 4416, Springer-Verlag, pp. 357-370, 2007.
  78. Larsen L.F.S., C. Thybo, R. Izadi-Zamanabadi, R. Wisniewski, *Synchronization and Desynchronizing Control Schemes for Supermarket Refrigeration Systems*, Proceedings of IEEE Multi-conference on Systems and Control, Singapore, October 2007.
  79. Tedd J., J.P. Kofoed, M. Jasinski, A. Morris, E. Fiis-Madsen, R. Wisniewski, J. Dimon Bendtsen, *Advanced Control Techniques for WEC Wave Dragon, European Wave and Tidal Energy Conference*, Proceedings of EWTEC 2007, Porto Portugal, September 2007.
  80. Larsen, L.F.S., C. Thybo, R. Wisniewski, H. Rasmussen, *Potential Energy Savings Using Dynamically Optimising Control in Refrigeration Systems under Daily Variations in Ambient Temperature*, Proceedings of 22nd IIR International Congress of Refrigeration, Beijing China, August 2007.
  81. Larsen, L.F.S., C. Thybo, R. Wisniewski, R. Izadi-Zamanabadi, *Anti-synchronizing Control for Supermarket Refrigeration Systems*, Proceedings of 22nd IIR International Congress of Refrigeration, Beijing China, August 2007.
  82. Nourbakhsh-Soltani, S.M., R. Izadi-Zamanabadi, R. Wisniewski, *High Precision Control of Ship-Mounted Satellite Tracking Antenna*, Proceedings of European Control Conference, Kos, Greece, July 2007.
  83. Larsen, L.F.S., R. Izadi-Zamanabadi, R. Wisniewski, *Supermarket Refrigeration System – Benchmark for Hybrid System Control*, Proceedings of European Control Conference, Kos, Greece, July 2007.
  84. Wisniewski, R., *Towards Modeling of Hybrid Systems*, Proceedings of 45th IEEE Conference on Decision and Control, San Diego, CA, USA, December 2006.
  85. Li, Z., R. Wisniewski, *Analysis of Synchronization for Coupled Hybrid Systems*, Proceedings of 26 Chinese Control Conference, Harbin, China, August 2006.
  86. Kallesøe, C., R. Izadi-Zamanabadi, R. Wisniewski, *A Realization Approach for Residual Expressions*, Proceedings of the 6th IFAC Symposium on Fault Detection, Supervision and Safety of Technical Processes, Safeprocess 2006, August-September 2006.
  87. Wisniewski, R., P. Kulczycki, *Euler-Poincare Reduction of a Rigid Body Motion*, Proceedings of MMAR 2004, Methods and Models in Automation and Robotics, Miedzyzdroje, Poland, August- September 2004.
  88. Kulczycki, P., R. Wisniewski, P. Kowalski, K. Krawiec, *Soft Time-Suboptimal Controlling Structure for Mechanical Systems*, Proceedings of 4th International Workshop on Robot Motion and Control, Puszczykowo-Poznań, Poland, June 2004.
  89. Kulczycki, P., R. Wisniewski, *Fuzzy Controller for an Uncertain Dynamical System*, Proceedings of MMAR 2002, Proceedings of Methods and Models in Automation and Robotics, Szczecin, Poland, September, 2002.
  90. Jensen, H.C.B, R. Wisniewski, *Fault Detection and Isolation for Spacecraft - Geometric Approach*, Proceedings of AIAA Guidance, Navigation and Control, Monterey, California, August, 2002.
  91. Pedersen, G.K.M, A.S. Langballe, and R. Wisniewski, *Synthesizing Multi-objective  $H_2/H_\infty$*



- Dynamic Controller Using Evolutionary Algorithms*, Proceedings of 15th IFAC World Congress, Barcelona, June, 2002.
92. Wisniewski, R., P. Kulczycki, *General Attitude Control Algorithm for Spacecraft Equipped with Star Camera and Reaction Wheels*, Proceedings of 15th IFAC World Congress, Barcelona, June, 2002.
  93. Wisniewski, R., J. Stoustrup, *Generalized  $H_2$  Control Synthesis for Periodic Systems*, Proceedings of American Control Conference 2001, Arlington, Virginia, June 25-27, 2001.
  94. Wisniewski, R., J. Stoustrup, *Periodic  $H_2$  Synthesis for Spacecraft Attitude Determination and Control with Vector Magnetometer and Magnetorquers*, Proceedings of IFAC Workshop on Periodic Control Systems, PSYCO 2001, Cernobbio-Como, August, 2001.
  95. Jensen, H. B., R. Wisniewski, *Quaternion Feedback Control for Rigid-Body Spacecraft*, Proceedings of AIAA Guidance, Navigation and Control Conference, Montreal, Canada, August, 2001.
  96. Quottrup, M.M., R. Wisniewski, J. Krogh-Sørensen, *Passivity Based Nonlinear Attitude Control of the Rømer Satellite*, Proceedings of IFAC Symposium on Aerospace, Bologna, Italy, September, 2001.
  97. Wisniewski, R., *Control of Rotational with Application to Spacecraft Attitude Control*, Proceedings of the IEEE Conference on Decision and Control, Orlando, Florida, December, 2001.
  98. Jensen, H. B., R. Wisniewski, *Nonlinear Observer Based Fault Detection for a Low Earth Orbit Spacecraft*, Proceedings of ESA Workshop on Onboard Autonomy, Noordwijk, Holland, August, 2001.
  99. Wisniewski, R. *Control of Hamiltonian Systems*, Proceedings of IEEE Conference on Control Applications, Anchorage, Alaska, September, 2000.
  100. Wisniewski, R., F.L. Markley, *Optimal Magnetic Attitude Control*, Proceedings of 14th World Congress, Beijing, China, July, 1999.
  101. Bak, T., M. Blanke, R. Wisniewski, *Flight Results and Lessons Learned from the Ørsted Attitude Control System*, Proceedings of 4th ESA International Conference on Spacecraft Guidance, Navigation and Control, Noordwijk, Holland, October, 1999.
  102. Wisniewski, R., *Sliding Mode Attitude Control for Magnetic Actuated Satellite*, Proceedings of 14th IFAC Symposium on Automatic Control in Aerospace, Seoul, Korea, August 1998.
  103. Bøgh, S., R. Wisniewski, T. Bak, *Autonomous Attitude Control System for the Ørsted Satellite*, Proceedings of Workshop on Control of Small Spacecraft, Breckenridge, Colorado, February 1997.
  104. Wisniewski, R., *Linear Time Varying Approach to Satellite Attitude Control Using Only Electromagnetic Actuation*. Proceedings of AIAA Guidance, Navigation, and Control Conference, New Orleans, Louisiana, August 1997.
  105. Bak, T., R. Wisniewski, M. Blanke, *Autonomous Attitude Determination and Control System for the Ørsted Satellite*. Proceedings of the IEEE Aerospace Application Conference, Breckenridge, Colorado, February 1996.
  106. Bak, T., R. Wisniewski, *Passive Aerodynamic Stabilization of Low Earth Orbit Satellite*. Proceedings of ESA International Conference on Spacecraft Guidance, Navigation and Control Systems, Noordwijk, Holland, November 1996.
  107. Wisniewski, R., M. Blanke, *Three-axis Satellite Attitude Control Based on Magnetic Torquing*, Proceedings of 13th IFAC World Congress, San Francisco, California, June–July 1996.

#### **Book chapters:**

1. Wisniewski R., A. Astolfi, T. Bak, M. Blanke, P. Lima, K. Spindler, P. Tabuada, P. Tavares: *Satellite Attitude Control Problem*. in Control of Complex Systems Ed.: K. Åström, P.

Albertos, M. Blanke, A. Isidori, W. Schaufelberger, Springer-Verlag, pp. 393-433, 2000.