

# List of Publications\*

Bart De Schutter

April 30, 2018

## Contents

<b>1 Books</b>	<b>1</b>
<b>2 Edited books</b>	<b>1</b>
<b>3 International journal papers</b>	<b>2</b>
<b>4 National journal papers</b>	<b>11</b>
<b>5 Contributions to books</b>	<b>12</b>
<b>6 International conference papers</b>	<b>14</b>
<b>7 National conference papers</b>	<b>39</b>
<b>8 PhD thesis</b>	<b>41</b>
<b>9 Project reports</b>	<b>41</b>
<b>10 Abstracts</b>	<b>42</b>
<b>11 Lecture notes</b>	<b>46</b>
<b>12 Reviews for Mathematical Reviews</b>	<b>46</b>
<b>13 Technical reports</b>	<b>49</b>
<b>14 Other publications</b>	<b>51</b>

## 1 Books

- [B1] Y. Wang, B. Ning, T. van den Boom, and B. De Schutter, *Optimal Trajectory Planning and Train Scheduling for Urban Rail Transit Systems. Advances in Industrial Control*, Switzerland: Springer, ISBN 978-3-319-30888-3, 180 pp., 2016.
- [B2] L. Buşoniu, R. Babuška, B. De Schutter, and D. Ernst, *Reinforcement Learning and Dynamic Programming Using Function Approximators*. Boca Raton, Florida: CRC Press, ISBN 978-1-4398-2108-4, 270 pp., 2010.
- [B3] Zs. Lendek, T.M. Guerra, R. Babuška, and B. De Schutter, *Stability Analysis and Nonlinear Observer Design Using Takagi-Sugeno Fuzzy Models*. vol. 262 of *Studies in Fuzziness and Soft Computing*, Berlin, Germany: Springer, ISBN 978-3-642-16775-1, 196 pp., 2010.

## 2 Edited books

- [E1] M. Heemels, B. De Schutter, and M. Lazar (eds.), *Proceedings of the 4th IFAC Conference on Analysis and Design of Hybrid Systems (ADHS 12)*. Eindhoven, The Netherlands, ISBN 978-3-902823-00-7, 452 pp., June 2012.

---

\*See <http://pub.deschutter.info/> for the most up-to-date list of my publications.

### 3 International journal papers (published or accepted)

- [J1] J. Lago, F. De Ridder, and B. De Schutter, “Forecasting spot electricity prices: Deep learning approaches and empirical comparison of traditional algorithms,” *Applied Energy*, vol. 221, pp. 386–405, July 2018.
- [J2] A. Jamshidnejad, I. Papamichail, M. Papageorgiou, and B. De Schutter, “Sustainable model-predictive control in urban traffic networks: Efficient solution based on general smoothening methods,” *IEEE Transactions on Control Systems Technology*, vol. 26, no. 3, pp. 813–827, May 2018.
- [J3] M. Burger, Z. Su, and B. De Schutter, “A node current-based 2-index formulation for the fixed-destination multi-depot travelling salesman problem,” *European Journal of Operational Research*, vol. 265, no. 2, pp. 463–477, Mar. 2018.
- [J4] S. Yuan, B. De Schutter, and S. Baldi, “Robust adaptive tracking control of uncertain slowly switched linear systems,” *Nonlinear Analysis: Hybrid Systems*, vol. 27, pp. 1–12, Feb. 2018.
- [J5] S. Yuan, L. Zhang, B. De Schutter, and S. Baldi, “A novel Lyapunov function for a non-weighted L2 gain of asynchronously switched linear systems,” *Automatica*, vol. 87, pp. 310–317, Jan. 2018.
- [J6] J. Lago, F. De Ridder, P. Vranckx, and B. De Schutter, “Forecasting day-ahead electricity prices in Europe: The importance of considering market integration,” *Applied Energy*, vol. 211, pp. 890–903, 2018.
- [J7] X. Luan, B. De Schutter, F. Corman, and G. Lodewijks, “Integrating dynamic signaling commands under fixed-block signaling systems into train dispatching optimization models,” *Transportation Research Record*, 2018. To appear.
- [J8] R. Luo, T.J.J. van den Boom, and B. De Schutter, “Multi-agent dynamic routing of a fleet of cyber-cars,” *IEEE Transactions on Intelligent Transportation Systems*, 2018. To appear.
- [J9] K. Máthé, L. Buşoniu, R. Munos, and B. De Schutter, “Optimistic planning with an adaptive number of action switches for near-optimal nonlinear control,” *Engineering Applications of Artificial Intelligence*, vol. 67, pp. 355–367, 2018.
- [J10] F. Ruelens, B. Claessens, S. Quaiyum, B. De Schutter, R. Babuška, and R. Belmans, “Reinforcement learning applied to an electric water heater: From theory to practice,” *IEEE Transactions on Smart Grid*, 2018. To appear.
- [J11] G.S. van de Weg, A. Hegyi, S.P. Hoogendoorn, and B. De Schutter, “Efficient freeway MPC by parameterization of ALINEA and a speed-limited area,” *IEEE Transactions on Intelligent Transportation Systems*, 2018. To appear.
- [J12] J. Xu, T.J.J. van den Boom, and B. De Schutter, “Model predictive control for stochastic max-plus linear systems with chance constraints,” *IEEE Transactions on Automatic Control*, 2018. To appear.
- [J13] J. Xu, T. van den Boom, and B. De Schutter, “Optimistic optimization for continuous nonconvex piecewise affine functions,” *Automatica*, 2018. To appear.
- [J14] Z. Hidayat, R. Babuška, A. Núñez, and B. De Schutter, “Identification of distributed-parameter systems from sparse measurements,” *Applied Mathematical Modelling*, vol. 51, pp. 605–625, Nov. 2017.
- [J15] Z. Su, A. Jamshidi, A. Núñez, S. Baldi, and B. De Schutter, “Multi-level condition-based maintenance planning for railway infrastructures – A scenario-based chance-constrained approach,” *Transportation Research Part C*, vol. 84, pp. 92–123, Nov. 2017.
- [J16] S. Yuan, B. De Schutter, and S. Baldi, “Adaptive asymptotic tracking control of uncertain time-driven switched linear systems,” *IEEE Transactions on Automatic Control*, vol. 62, no. 11, pp. 5802–5807, Nov. 2017.
- [J17] S.S. Farahani, T.J.J. van den Boom, and B. De Schutter, “On optimization of stochastic max-min-plus-scaling systems – An approximation approach,” *Automatica*, vol. 83, pp. 20–27, Sept. 2017.
- [J18] L. Li, R.R. Negenborn, and B. De Schutter, “Distributed model predictive control for cooperative synchmodal freight transport,” *Transportation Research Part E: Logistics and Transportation Review*, vol. 105, pp. 240–260, Sept. 2017.

- [J19] F. Ruelens, B.J. Claessens, S. Vandael, B. De Schutter, R. Babuška, and R. Belmans, “Residential demand response of thermostatically controlled loads using batch reinforcement learning,” *IEEE Transactions on Smart Grid*, vol. 8, no. 5, pp. 2149–2159, Sept. 2017.
- [J20] A. Jamshidi, S. Faghih-Roohi, S. Hajizadeh, A. Núñez, R. Babuška, R. Dollevoet, Z. Li, and B. De Schutter, “A big data analysis approach for rail failure risk assessment,” *Risk Analysis*, vol. 37, no. 8, pp. 1495–1507, Aug. 2017.
- [J21] C. Pasquale, S. Sacone, S. Siri, and B. De Schutter, “A multi-class model-based control scheme for reducing congestion and emissions in freeway networks by combining ramp metering and route guidance,” *Transportation Research Part C*, vol. 80, pp. 348–408, July 2017.
- [J22] F. Alavi, E. Park Lee, N. van de Wouw, B. De Schutter, and Z. Lukszo, “Fuel cell cars in a microgrid for synergies between hydrogen and electricity networks,” *Applied Energy*, vol. 192, pp. 296–304, Apr. 2017.
- [J23] N. Groot, G. Zaccour, and B. De Schutter, “Hierarchical game theory for system-optimal control: Applications of reverse Stackelberg games in regulating marketing channels and traffic routing,” *IEEE Control Systems Magazine*, vol. 37, no. 2, pp. 129–162, Apr. 2017.
- [J24] K. Verbert, R. Babuška, and B. De Schutter, “Bayesian and Dempster-Shafer reasoning for knowledge-based fault diagnosis – A comparative study,” *Engineering Applications of Artificial Intelligence*, vol. 60, pp. 136–150, Apr. 2017.
- [J25] K. Verbert, R. Babuška, and B. De Schutter, “Combining knowledge and historical data for system-level fault diagnosis of HVAC systems,” *Engineering Applications of Artificial Intelligence*, vol. 59, pp. 260–273, Mar. 2017.
- [J26] K. Verbert, B. De Schutter, and R. Babuška, “Timely condition-based maintenance planning for multi-component systems,” *Reliability Engineering & System Safety*, vol. 159, pp. 310–321, Mar. 2017.
- [J27] Z. Zhou, B. De Schutter, S. Lin, and Y. Xi, “Two-level hierarchical model-based predictive control for large-scale urban traffic network,” *IEEE Transactions on Control Systems Technology*, vol. 25, no. 2, pp. 496–508, Mar. 2017.
- [J28] A. Jamshidnejad, I. Papamichail, M. Papageorgiou, and B. De Schutter, “A mesoscopic integrated urban traffic flow-emission model,” *Transportation Research Part C*, vol. 75, pp. 45–83, Feb. 2017.
- [J29] S. Liu, H. Hellendoorn, and B. De Schutter, “Model predictive control for freeway networks based on multi-class traffic flow and emission models,” *IEEE Transactions on Intelligent Transportation Systems*, vol. 18, no. 2, pp. 306–320, Feb. 2017.
- [J30] R. Luo, R. Bourdais, T. van den Boom, and B. De Schutter, “Multi-agent model predictive control based on resource allocation coordination for a class of hybrid systems with limited information sharing,” *Engineering Applications of Artificial Intelligence*, vol. 58, pp. 123–133, Feb. 2017.
- [J31] A. Jamshidnejad and B. De Schutter, “An algorithm for estimating the generalized fundamental traffic variables from point measurements using initial conditions,” *Transportmetrica B: Transport Dynamics*, 2017. To appear.
- [J32] J. Xu, T. van den Boom, and B. De Schutter, “Optimistic optimization for model predictive control of max-plus linear systems,” *Automatica*, vol. 74, pp. 16–22, Dec. 2016.
- [J33] K. Verbert, B. De Schutter, and R. Babuška, “Fault diagnosis using spatial and temporal information with application to railway track circuits,” *Engineering Applications of Artificial Intelligence*, vol. 56, pp. 200–211, Nov. 2016.
- [J34] C. Portilla, F. Valencia, J. Espinosa, A. Núñez, and B. De Schutter, “Model-based predictive control for bicycling in urban intersections,” *Transportation Research Part C*, vol. 70, pp. 27–41, Sept. 2016.
- [J35] J. Xu, T.J.J. van den Boom, B. De Schutter, and S. Wang, “Irredundant lattice representations of continuous piecewise affine functions,” *Automatica*, vol. 70, pp. 109–120, Aug. 2016.
- [J36] B. Kersbergen, T. van den Boom, and B. De Schutter, “Distributed model predictive control for railway traffic management,” *Transportation Research Part C*, vol. 68, pp. 462–489, July 2016.

- [J37] M. Hajiahmadi, B. De Schutter, and H. Hellendoorn, “Design of stabilizing switching laws for mixed switched affine systems,” *IEEE Transactions on Automatic Control*, vol. 61, no. 6, pp. 1676–1681, June 2016.
- [J38] S. Li, B. De Schutter, L. Yang, and Z. Gao, “Robust model predictive control for train regulation in underground railway transportation,” *IEEE Transactions on Control Systems Technology*, vol. 24, no. 3, pp. 1075–1083, May 2016.
- [J39] J. Xu, T.J.J. van den Boom, B. De Schutter, and X. Luo, “Minimal conjunctive normal expression of continuous piecewise affine functions,” *IEEE Transactions on Automatic Control*, vol. 61, no. 5, pp. 1340–1345, May 2016.
- [J40] M. Hajiahmadi, B. De Schutter, and H. Hellendoorn, “Robust  $H_\infty$  switching control techniques for switched nonlinear systems with application to urban traffic control,” *International Journal of Robust and Nonlinear Control*, vol. 26, pp. 1286–1306, Apr. 2016.
- [J41] S. Liu, A. Sadowska, J.R.D. Frejo, A. Núñez, E.F. Camacho, H. Hellendoorn, and B. De Schutter, “Robust receding horizon parameterized control for multi-class freeway networks: A tractable scenario-based approach,” *International Journal of Robust and Nonlinear Control*, vol. 26, no. 6, pp. 1211–1245, Apr. 2016.
- [J42] M. Hajiahmadi, G.S. van de Weg, C.M.J. Tampère, R. Corthout, A. Hegyi, B. De Schutter, and H. Hellendoorn, “Integrated predictive control of freeway networks using the extended link transmission model,” *IEEE Transactions on Intelligent Transportation Systems*, vol. 17, no. 1, pp. 65–78, Jan. 2016.
- [J43] P. Mc Namara, R.R. Negenborn, B. De Schutter, G. Lightbody, and S. McLoone, “Distributed MPC for frequency regulation in multi-terminal HVDC grids,” *Control Engineering Practice*, vol. 46, pp. 176–187, Jan. 2016.
- [J44] S.S. Farahani, T. van den Boom, H. van der Weide, and B. De Schutter, “An approximation method for computing the expected value of max-affine expressions,” *European Journal of Control*, vol. 27, pp. 17–27, 2016.
- [J45] N. Groot, B. De Schutter, and H. Hellendoorn, “Optimal affine leader functions in reverse Stackelberg games: Existence conditions and characterization,” *Journal of Optimization Theory and Applications*, vol. 168, no. 1, pp. 348–374, 2016.
- [J46] B. Kersbergen, J. Rudan, T. van den Boom, and B. De Schutter, “Towards railway traffic management using switching max-plus-linear systems – Structure analysis and rescheduling,” *Discrete Event Dynamic Systems: Theory and Applications*, vol. 26, no. 2, pp. 183–223, 2016.
- [J47] G.A.D. Lopes, B. Kersbergen, B. De Schutter, T. van den Boom, and R. Babuška, “Synchronization of a class of cyclic discrete-event systems describing legged locomotion,” *Discrete Event Dynamic Systems: Theory and Applications*, vol. 26, no. 2, pp. 225–261, 2016.
- [J48] Y. Wang, S. Su, X. Pan, F. Cao, T. Tang, B. Ning, and B. De Schutter, “Integrated line planning and train scheduling for an urban rail transit line,” *Transportation Research Record*, no. 2540, pp. 66–75, 2016.
- [J49] Y. Wang, B. Ning, T. Tang, T.J.J. van den Boom, and B. De Schutter, “Efficient real-time train scheduling for urban rail transit systems using iterative convex programming,” *IEEE Transactions on Intelligent Transportation Systems*, vol. 16, no. 6, pp. 3337–3352, Dec. 2015.
- [J50] L. Li, R.R. Negenborn, and B. De Schutter, “Intermodal freight transport planning – A receding horizon control approach,” *Transportation Research Part C*, vol. 60, pp. 77–95, Nov. 2015.
- [J51] Y. Wang, T. Tang, B. Ning, T.J.J. van den Boom, and B. De Schutter, “Passenger-demands-oriented train scheduling for an urban rail transit network,” *Transportation Research Part C*, vol. 60, pp. 1–23, Nov. 2015.
- [J52] P.J. van Overloop, J.M. Maestre, A.D. Sadowska, E.F. Camacho, and B. De Schutter, “Human-in-the-loop model predictive control of an irrigation canal,” *IEEE Control Systems Magazine*, vol. 35, no. 4, pp. 19–29, Aug. 2015.

- [J53] Y. Zeinaly, B. De Schutter, and H. Hellendoorn, “An integrated model predictive scheme for baggage-handling systems: Routing, line balancing, and empty-cart management,” *IEEE Transactions on Control Systems Technology*, vol. 23, no. 4, pp. 1536–1545, July 2015.
- [J54] Z. Cong, B. De Schutter, and R. Babuška, “Co-design of traffic network topology and control measures,” *Transportation Research Part C*, vol. 54, pp. 56–73, May 2015.
- [J55] J.M. Maestre, M.A. Ridaou, A. Kozma, C. Savorgnan, M. Diehl, M.D. Doan, A. Sadowska, T. Keviczky, B. De Schutter, H. Scheu, W. Marquardt, F. Valencia, and J. Espinosa, “A comparison of distributed MPC schemes on a hydro-power plant benchmark,” *Optimal Control Applications and Methods*, vol. 36, no. 3, pp. 306–332, May–June 2015.
- [J56] D. Adzkiya, B. De Schutter, and A. Abate, “Computational techniques for reachability analysis of max-plus-linear systems,” *Automatica*, vol. 53, pp. 293–302, Mar. 2015.
- [J57] M. Hajiahmadi, J. Haddad, B. De Schutter, and N. Geroliminis, “Optimal hybrid perimeter and switching plans control for urban traffic networks,” *IEEE Transactions on Control Systems Technology*, vol. 23, no. 2, pp. 464–478, Mar. 2015.
- [J58] N. Groot, B. De Schutter, and H. Hellendoorn, “Toward system-optimal routing in traffic networks: A reverse Stackelberg game approach,” *IEEE Transactions on Intelligent Transportation Systems*, vol. 16, no. 1, pp. 29–40, Feb. 2015.
- [J59] A. Jamshidnejad and B. De Schutter, “Estimation of the generalized average traffic speed based on microscopic measurements,” *Transportmetrica A: Transport Science*, vol. 11, no. 6, pp. 525–546, 2015.
- [J60] A. Núñez, C. Ocampo-Martinez, J.M. Maestre, and B. De Schutter, “Time-varying scheme for non-centralized model predictive control of large-scale systems,” *Mathematical Problems in Engineering*, vol. 2015, 17 pp., 2015. Article ID 560702.
- [J61] A. Sadowska, B. De Schutter, and P.-J. van Overloop, “Delivery-oriented hierarchical predictive control of an irrigation canal: Event-driven versus time-driven approaches,” *IEEE Transactions on Control Systems Technology*, vol. 23, no. 5, pp. 1701–1716, 2015.
- [J62] Z. Zhou, B. De Schutter, S. Lin, and Y. Xi, “Multi-agent model-based predictive control for large-scale urban traffic networks using a serial scheme,” *IET Control Theory & Applications*, vol. 9, no. 3, pp. 475–484, 2015.
- [J63] S.S. Farahani, T. van den Boom, and B. De Schutter, “Exact and approximate approaches to the identification of stochastic max-plus-linear systems,” *Discrete Event Dynamic Systems: Theory and Applications*, vol. 24, no. 4, pp. 447–471, Dec. 2014.
- [J64] Y. Wang, B. De Schutter, T.J.J. van den Boom, B. Ning, and T. Tang, “Efficient bi-level approach for urban rail transit operation with stop-skipping,” *IEEE Transactions on Intelligent Transportation Systems*, vol. 15, no. 6, pp. 2658–2670, Dec. 2014.
- [J65] A. Núñez, C.E. Cortés, D. Sáez, B. De Schutter, and M. Gendreau, “Multiobjective model predictive control for dynamic pickup and delivery problems,” *Control Engineering Practice*, vol. 32, pp. 73–86, Nov. 2014.
- [J66] A. Sadowska, P.-J. van Overloop, C. Burt, and B. De Schutter, “Hierarchical operation of water level controllers: Formal analysis and application on a large scale irrigation canal,” *Water Resources Management*, vol. 28, no. 14, pp. 4999–5019, Nov. 2014.
- [J67] N. Groot, B. De Schutter, and H. Hellendoorn, “On systematic computation of optimal nonlinear solutions for the reverse Stackelberg game,” *IEEE Transactions on Systems, Man and Cybernetics: Systems*, vol. 44, no. 10, pp. 1315–1327, Oct. 2014.
- [J68] M. Hajiahmadi, B. De Schutter, and H. Hellendoorn, “Stabilization and robust  $H_\infty$  control for sector-bounded switched nonlinear systems,” *Automatica*, vol. 50, no. 10, pp. 2726–2731, Oct. 2014.
- [J69] J.R.D. Frejo, A. Núñez, B. De Schutter, and E.F. Camacho, “Hybrid model predictive control for freeway traffic using discrete speed limit signals,” *Transportation Research Part C*, vol. 46, pp. 309–325, Sept. 2014.

- [J70] Zs. Lendek, P. Raica, B. De Schutter, and R. Babuška, “Analysis and design for continuous-time string-connected Takagi-Sugeno systems,” *Journal of the Franklin Institute*, vol. 351, no. 7, pp. 3577–3592, July 2014.
- [J71] G.A.D. Lopes, B. Kersbergen, T.J.J. van den Boom, B. De Schutter, and R. Babuška, “Modeling and control of legged locomotion via switching max-plus models,” *IEEE Transactions on Robotics*, vol. 30, no. 3, pp. 652–665, June 2014.
- [J72] D.C. Dumitrache, I. Inoan, and B. De Schutter, “An analytic model for a  $^{13}\text{C}$  isotope separation process by cryogenic distillation,” *Journal of Process Control*, vol. 24, no. 5, pp. 463–474, May 2014.
- [J73] S. Lin, B. De Schutter, A. Hegyi, Y. Xi, and J. Hellendoorn, “On a spatiotemporally discrete urban traffic model,” *IET Intelligent Transport Systems*, vol. 8, no. 3, pp. 219–231, May 2014.
- [J74] A. Núñez, B. De Schutter, D. Sáez, and I. Škrjanc, “Hybrid-fuzzy modeling and identification,” *Applied Soft Computing*, vol. 17, pp. 67–78, Apr. 2014.
- [J75] Y. Wang, B. De Schutter, T.J.J. van den Boom, and B. Ning, “Optimal trajectory planning for trains under fixed and moving signaling systems using mixed integer linear programming,” *Control Engineering Practice*, vol. 22, pp. 44–56, Jan. 2014.
- [J76] L. Li, R.R. Negenborn, and B. De Schutter, “Receding horizon approach for container flow assignment in intermodal freight transport,” *Transportation Research Record*, vol. 2410, pp. 132–140, 2014.
- [J77] D. Adzkiya, B. De Schutter, and A. Abate, “Finite abstractions of max-plus-linear systems,” *IEEE Transactions on Automatic Control*, vol. 58, no. 12, pp. 3039–3053, Dec. 2013.
- [J78] Z. Cong, B. De Schutter, and R. Babuška, “Ant colony routing algorithm for freeway networks,” *Transportation Research Part C*, vol. 37, pp. 1–19, Dec. 2013.
- [J79] S. Lin, B. De Schutter, Y. Xi, and H. Hellendoorn, “Integrated urban traffic control for the reduction of travel delays and emissions,” *IEEE Transactions on Intelligent Transportation Systems*, vol. 14, no. 4, pp. 1609–1619, Dec. 2013.
- [J80] M.D. Doan, P. Giselsson, T. Keviczky, B. De Schutter, and A. Rantzer, “A distributed accelerated gradient algorithm for distributed model predictive control of a hydro power valley,” *Control Engineering Practice*, vol. 21, no. 11, pp. 1594–1605, Nov. 2013.
- [J81] M. Burger, M. van den Berg, A. Hegyi, B. De Schutter, and J. Hellendoorn, “Considerations for model-based traffic control,” *Transportation Research Part C*, vol. 35, pp. 1–19, Oct. 2013.
- [J82] N. Groot, B. De Schutter, and H. Hellendoorn, “Integrated model predictive traffic and emission control using a piecewise-affine approach,” *IEEE Transactions on Intelligent Transportation Systems*, vol. 14, no. 2, pp. 587–598, June 2013.
- [J83] S.K. Zegeye, B. De Schutter, J. Hellendoorn, E.A. Breunese, and A. Hegyi, “Integrated macroscopic traffic flow, emission, and fuel consumption model for control purposes,” *Transportation Research Part C*, vol. 31, pp. 158–171, June 2013.
- [J84] L.D. Baskar, B. De Schutter, and H. Hellendoorn, “Optimal routing for automated highway systems,” *Transportation Research Part C*, vol. 30, pp. 1–22, May 2013.
- [J85] Y. Wang, B. De Schutter, T.J.J. van den Boom, and B. Ning, “Optimal trajectory planning for trains – A pseudospectral method and a mixed integer linear programming approach,” *Transportation Research Part C*, vol. 29, pp. 97–114, Apr. 2013.
- [J86] P. Giselsson, M.D. Doan, T. Keviczky, B. De Schutter, and A. Rantzer, “Accelerated gradient methods and dual decomposition in distributed model predictive control,” *Automatica*, vol. 49, no. 3, pp. 829–833, Mar. 2013.
- [J87] P. Mc Namara, R.R. Negenborn, B. De Schutter, and G. Lightbody, “Optimal coordination of a multiple HVDC link system using centralized and distributed control,” *IEEE Transactions on Control Systems Technology*, vol. 21, no. 2, pp. 302–314, Mar. 2013.

- [J88] P. Mc Namara, R.R. Negenborn, B. De Schutter, and G. Lightbody, “Weight optimisation for iterative distributed model predictive control applied to power networks,” *Engineering Applications of Artificial Intelligence*, vol. 26, no. 1, pp. 532–543, Jan. 2013.
- [J89] S. Roshany-Yamchi, M. Cychowski, R.R. Negenborn, B. De Schutter, K. Delaney, and J. Connell, “Kalman filter-based distributed predictive control of large-scale multi-rate systems: Application to power networks,” *IEEE Transactions on Control Systems Technology*, vol. 21, no. 1, pp. 27–39, Jan. 2013.
- [J90] M. Hajiahmadi, R. Corthout, C. Tampère, B. De Schutter, and J. Hellendoorn, “Variable speed limit control based on the extended link transmission model,” *Transportation Research Record*, no. 2390, p. 11-19, 2013.
- [J91] J.M. Maestre, L. Raso, P.J. van Overloop, and B. De Schutter, “Distributed tree-based model predictive control on a drainage water system,” *Journal of Hydroinformatics*, vol. 15, no. 2, pp. 335–347, 2013.
- [J92] H. van Ekeren, R.R. Negenborn, P.J. van Overloop, and B. De Schutter, “Time-instant optimization for hybrid model predictive control of the Rhine-Meuse Delta,” *Journal of Hydroinformatics*, vol. 15, no. 2, pp. 271–292, 2013.
- [J93] Y. Li and B. De Schutter, “Control of a string of identical pools using non-identical feedback controllers,” *IEEE Transactions on Control Systems Technology*, vol. 20, no. 6, pp. 1638–1646, Nov. 2012.
- [J94] S. Lin, B. De Schutter, Y. Xi, and H. Hellendoorn, “Efficient network-wide model-based predictive control for urban traffic networks,” *Transportation Research Part C*, vol. 24, pp. 122–140, Oct. 2012.
- [J95] T.J.J. van den Boom and B. De Schutter, “Modeling and control of switching max-plus-linear systems with random and deterministic switching,” *Discrete Event Dynamic Systems: Theory and Applications*, vol. 22, no. 3, pp. 293–332, Sept. 2012.
- [J96] S.K. Zegeye, B. De Schutter, J. Hellendoorn, E.A. Breunese, and A. Hegyi, “A predictive traffic controller for sustainable mobility using parameterized control policies,” *IEEE Transactions on Intelligent Transportation Systems*, vol. 13, no. 3, pp. 1420–1429, Sept. 2012.
- [J97] L.D. Baskar, B. De Schutter, and H. Hellendoorn, “Traffic management for automated highway systems using model-based predictive control,” *IEEE Transactions on Intelligent Transportation Systems*, vol. 13, no. 2, pp. 838–847, June 2012.
- [J98] D.C. Dumitrache, B. De Schutter, A. Huesman, and E. Dulf, “Modeling, analysis, and simulation of a cryogenic distillation process for  $^{13}\text{C}$  isotope separation,” *Journal of Process Control*, vol. 22, no. 4, pp. 798–808, Apr. 2012.
- [J99] Y. Li and B. De Schutter, “Stability and performance analysis of an irrigation channel with distributed control,” *Control Engineering Practice*, vol. 19, no. 10, pp. 1147–1156, Oct. 2011.
- [J100] S. Lin, B. De Schutter, Y. Xi, and H. Hellendoorn, “Fast model predictive control for urban road networks via MILP,” *IEEE Transactions on Intelligent Transportation Systems*, vol. 12, no. 3, pp. 846–856, Sept. 2011.
- [J101] Zs. Lendek, R. Babuška, and B. De Schutter, “Sequential stability analysis and observer design for distributed TS fuzzy systems,” *Fuzzy Sets and Systems*, vol. 174, no. 1, pp. 1–30, July 2011.
- [J102] I. Alvarado, D. Limon, D. Muñoz de la Peña, J.M. Maestre, M.A. Ridao, H. Scheu, W. Marquardt, R.R. Negenborn, B. De Schutter, F. Valencia, and J. Espinosa, “A comparative analysis of distributed MPC techniques applied to the HD-MPC four-tank benchmark,” *Journal of Process Control*, vol. 21, no. 5, pp. 800–815, June 2011.
- [J103] M.D. Doan, T. Keviczky, and B. De Schutter, “An iterative scheme for distributed model predictive control using Fenchel’s duality,” *Journal of Process Control*, vol. 21, no. 5, pp. 746–755, June 2011.
- [J104] A.N. Tarău, B. De Schutter, and J. Hellendoorn, “Predictive route control for automated baggage handling systems using mixed-integer linear programming,” *Transportation Research Part C*, vol. 19, no. 3, pp. 424–439, June 2011.

- [J105] L.D. Baskar, B. De Schutter, J. Hellendoorn, and Z. Papp, “Traffic control and intelligent vehicle highway systems: A survey,” *IET Intelligent Transport Systems*, vol. 5, no. 1, pp. 38–52, Mar. 2011.
- [J106] L. Buşoniu, D. Ernst, B. De Schutter, and R. Babuška, “Cross-entropy optimization of control policies with adaptive basis functions,” *IEEE Transactions on Systems, Man and Cybernetics, Part B: Cybernetics*, vol. 41, no. 1, pp. 196–209, Feb. 2011.
- [J107] M. Houwing, R.R. Negenborn, and B. De Schutter, “Demand response with micro-CHP systems,” *Proceedings of the IEEE*, vol. 99, no. 1, pp. 200–213, Jan. 2011.
- [J108] A.N. Tarău, B. De Schutter, and J. Hellendoorn, “Hierarchical route control in DCV-based baggage handling systems,” *International Journal of Services Operations and Informatics*, vol. 6, no. 1/2, pp. 5–29, Jan. 2011.
- [J109] A.A. Alvarez Cabrera, M.J. Foeken, O.A. Tekin, K. Woestenenk, M.S. Erden, B. De Schutter, M.J.L. van Tooren, R. Babuška, F.J.A.M. van Houten, and T. Tomiyama, “Towards automation of control software: A review of challenges in mechatronic design,” *Mechatronics*, vol. 20, no. 8, pp. 876–886, Dec. 2010.
- [J110] J. Haddad, B. De Schutter, D. Mahalel, I. Ioslovich, and P.-O. Gutman, “Optimal steady-state control for isolated traffic intersections,” *IEEE Transactions on Automatic Control*, vol. 55, no. 11, pp. 2612–2617, Nov. 2010.
- [J111] W.P.M.H. Heemels, B. De Schutter, J. Lunze, and M. Lazar, “Stability analysis and controller synthesis for hybrid dynamical systems,” *Philosophical Transactions of the Royal Society A*, vol. 368, no. 1930, p. 4937–4960, Nov. 2010.
- [J112] K. Staňková, G.J. Olsder, and B. De Schutter, “On European electricity market liberalization: A game-theoretic approach,” *INFOR: Information Systems and Operational Research*, vol. 48, no. 4, pp. 267–280, Nov. 2010.
- [J113] Zs. Lendek, J. Lauber, T.M. Guerra, R. Babuška, and B. De Schutter, “Adaptive observers for TS fuzzy systems with unknown polynomial inputs,” *Fuzzy Sets and Systems*, vol. 161, no. 15, pp. 2043–2065, Aug. 2010.
- [J114] L. Buşoniu, D. Ernst, B. De Schutter, and R. Babuška, “Approximate dynamic programming with a fuzzy parameterization,” *Automatica*, vol. 46, no. 5, pp. 804–814, May 2010.
- [J115] A.N. Tarău, B. De Schutter, and H. Hellendoorn, “Model-based control for route choice in automated baggage handling systems,” *IEEE Transactions on Systems, Man, and Cybernetics, Part C: Applications and Reviews*, vol. 40, no. 3, pp. 341–351, May 2010.
- [J116] O.J. Gietelink, J. Ploeg, B. De Schutter, and M. Verhaegen, “Development of a driver information and warning system with vehicle hardware-in-the-loop simulations,” *Mechatronics*, Special Issue on Hardware-in-the-Loop Simulation, vol. 19, no. 7, pp. 1091–1104, Oct. 2009.
- [J117] R.R. Negenborn, S. Leirens, B. De Schutter, and J. Hellendoorn, “Supervisory nonlinear MPC for emergency voltage control using pattern search,” *Control Engineering Practice*, vol. 7, no. 7, pp. 841–848, July 2009.
- [J118] Zs. Lendek, R. Babuška, and B. De Schutter, “Stability of cascaded fuzzy systems and observers,” *IEEE Transactions on Fuzzy Systems*, vol. 17, no. 3, pp. 641–653, June 2009.
- [J119] R.R. Negenborn, P.-J. van Overloop, T. Keviczky, and B. De Schutter, “Distributed model predictive control of irrigation canals,” *Networks and Heterogeneous Media*, vol. 4, no. 2, pp. 359–380, June 2009.
- [J120] A.N. Tarău, B. De Schutter, and J. Hellendoorn, “Model-based control for throughput optimization of automated flats sorting machines,” *Control Engineering Practice*, vol. 17, no. 6, pp. 733–739, June 2009.
- [J121] M. Gerard, B. De Schutter, and M. Verhaegen, “A hybrid steepest descent method for constrained convex optimization,” *Automatica*, vol. 45, no. 2, pp. 525–531, Feb. 2009.
- [J122] I. Necoara, B. De Schutter, T.J.J. van den Boom, and H. Hellendoorn, “Robust control of constrained max-plus-linear systems,” *International Journal of Robust and Nonlinear Control*, vol. 19, no. 2, pp. 218–242, Jan. 2009.



- [J123] Z. Lukszo, M.P.C. Weijnen, R.R. Negenborn, and B. De Schutter, “Tackling challenges in infrastructure operation and control: Cross-sectoral learning for process and infrastructure engineers,” *International Journal of Critical Infrastructures*, vol. 5, no. 4, pp. 308–322, 2009.
- [J124] A.N. Tarău, B. De Schutter, and J. Hellendoorn, “Route choice control of automated baggage handling systems,” *Transportation Research Record*, no. 2106, pp. 76–82, 2009.
- [J125] J.M. van Ast, R. Babuška, and B. De Schutter, “Novel ant colony optimization approach to optimal control,” *International Journal of Intelligent Computing and Cybernetics*, vol. 2, no. 3, pp. 414–434, 2009.
- [J126] I. Necoara, B. De Schutter, T. van den Boom, and H. Hellendoorn, “Model predictive control for uncertain max-min-plus-scaling systems,” *International Journal of Control*, vol. 81, no. 5, pp. 701–713, May 2008.
- [J127] Zs. Lendek, R. Babuška, and B. De Schutter, “Distributed Kalman filtering for cascaded systems,” *Engineering Applications of Artificial Intelligence*, vol. 21, no. 3, pp. 457–469, Apr. 2008.
- [J128] I. Necoara, T.J.J. van den Boom, B. De Schutter, and H. Hellendoorn, “Stabilization of max-plus-linear systems using model predictive control: The unconstrained case,” *Automatica*, vol. 44, no. 4, pp. 971–981, Apr. 2008.
- [J129] R.R. Negenborn, B. De Schutter, and J. Hellendoorn, “Multi-agent model predictive control for transportation networks: Serial versus parallel schemes,” *Engineering Applications of Artificial Intelligence*, vol. 21, no. 3, pp. 353–366, Apr. 2008.
- [J130] L. Buşoniu, R. Babuška, and B. De Schutter, “A comprehensive survey of multi-agent reinforcement learning<sup>1</sup>,” *IEEE Transactions on Systems, Man, and Cybernetics, Part C: Applications and Reviews*, vol. 38, no. 2, pp. 156–172, Mar. 2008.
- [J131] D. Corona and B. De Schutter, “Adaptive cruise control for a SMART car: A comparison benchmark for MPC-PWA control methods,” *IEEE Transactions on Control Systems Technology*, vol. 16, no. 2, pp. 365–372, Mar. 2008.
- [J132] I. Necoara, B. De Schutter, T.J.J. van den Boom, and H. Hellendoorn, “Stable model predictive control for constrained max-plus-linear systems,” *Discrete Event Dynamic Systems: Theory and Applications*, vol. 17, no. 3, pp. 329–354, Sept. 2007.
- [J133] M. van den Berg, A. Hegyi, B. De Schutter, and J. Hellendoorn, “Integrated traffic control for mixed urban and freeway networks: A model predictive control approach,” *European Journal of Transport and Infrastructure Research*, vol. 7, no. 3, pp. 223–250, Sept. 2007.
- [J134] I. Necoara, E.C. Kerrigan, B. De Schutter, and T.J.J. van den Boom, “Finite-horizon min-max control of max-plus-linear systems,” *IEEE Transactions on Automatic Control*, vol. 52, no. 6, pp. 1088–1093, June 2007.
- [J135] T.J.J. van den Boom, B. Heidergott, and B. De Schutter, “Complexity reduction in MPC for stochastic max-plus-linear discrete event systems by variability expansion,” *Automatica*, vol. 43, no. 6, pp. 1058–1063, June 2007.
- [J136] T.J.J. van den Boom and B. De Schutter, “Modelling and control of discrete event systems using switching max-plus-linear systems,” *Control Engineering Practice*, vol. 14, no. 10, pp. 1199–1211, Oct. 2006.
- [J137] T. Bellemans, B. De Schutter, and B. De Moor, “Model predictive control for ramp metering of motorway traffic: A case study,” *Control Engineering Practice*, vol. 14, no. 7, pp. 757–767, July 2006.
- [J138] O. Gietelink, J. Ploeg, B. De Schutter, and M. Verhaegen, “Development of advanced driver assistance systems with vehicle hardware-in-the-loop simulations,” *Vehicle System Dynamics*, vol. 44, no. 7, pp. 569–590, July 2006.
- [J139] G. Schullerus, V. Krebs, B. De Schutter, and T. van den Boom, “Input signal design for identification of max-plus-linear systems,” *Automatica*, vol. 42, no. 6, pp. 937–943, June 2006.

---

<sup>1</sup>For this paper we have been awarded the 2009 Andrew P. Sage Best Transactions Paper Award.

- [J140] A. Hegyi, B. De Schutter, and H. Hellendoorn, "Model predictive control for optimal coordination of ramp metering and variable speed limits," *Transportation Research Part C*, vol. 13, no. 3, pp. 185–209, June 2005.
- [J141] A. Hegyi, B. De Schutter, and J. Hellendoorn, "Optimal coordination of variable speed limits to suppress shock waves," *IEEE Transactions on Intelligent Transportation Systems*, vol. 6, no. 1, pp. 102–112, Mar. 2005.
- [J142] O.J. Gietelink, B. De Schutter, and M. Verhaegen, "Probabilistic approach for validation of advanced driver assistance systems," *Transportation Research Record*, no. 1910, pp. 20–28, 2005.
- [J143] A. Hegyi, B. De Schutter, and J. Hellendoorn, "Optimal control of freeway networks with bottlenecks and static demand," *Transportation Research Record*, no. 1925, pp. 29–37, 2005.
- [J144] R.T. van Katwijk, P. van Koningsbruggen, B. De Schutter, and J. Hellendoorn, "Test bed for multi-agent control systems in road traffic management," *Transportation Research Record*, no. 1910, pp. 108–115, 2005.
- [J145] B. De Schutter and T.J.J. van den Boom, "MPC for continuous piecewise-affine systems," *Systems & Control Letters*, vol. 52, no. 3–4, pp. 179–192, July 2004.
- [J146] S. Kanev, C. Scherer, M. Verhaegen, and B. De Schutter, "Robust output-feedback controller design via local BMI optimization," *Automatica*, vol. 40, no. 7, pp. 1115–1127, July 2004.
- [J147] T.J.J. van den Boom, B. De Schutter, G. Schullerus, and V. Krebs, "Adaptive model predictive control for max-plus-linear discrete event input-output systems," *IEE Proceedings – Control Theory and Applications*, vol. 151, no. 3, pp. 339–346, May 2004.
- [J148] T.J.J. van den Boom and B. De Schutter, "Model predictive control for perturbed max-plus-linear systems: A stochastic approach," *International Journal of Control*, vol. 77, no. 3, pp. 302–309, Feb. 2004.
- [J149] I. Necoara, B. De Schutter, and J. Hellendoorn, "Structural properties of Helbing's traffic flow model," *Transportation Research Record*, no. 1883, pp. 21–30, 2004.
- [J150] S. Kanev, B. De Schutter, and M. Verhaegen, "An ellipsoid algorithm for probabilistic robust controller design," *Systems & Control Letters*, vol. 49, no. 5, pp. 365–375, Aug. 2003.
- [J151] B. De Schutter and T.J.J. van den Boom, "MPC for discrete-event systems with soft and hard synchronisation constraints," *International Journal of Control*, vol. 76, no. 1, pp. 82–94, Jan. 2003.
- [J152] A. Hegyi, B. De Schutter, and J. Hellendoorn, "Optimal coordination of variable speed limits to suppress shock waves," *Transportation Research Record*, no. 1852, pp. 167–174, 2003.
- [J153] S.P. Hoogendoorn, B. De Schutter, and H. Schuurman, "Decision support in dynamic traffic management. Real-time scenario evaluation," *European Journal of Transport and Infrastructure Research*, vol. 3, no. 1, pp. 21–38, 2003.
- [J154] B. De Schutter, W.P.M.H. Heemels, and A. Bemporad, "On the equivalence of linear complementarity problems," *Operations Research Letters*, vol. 30, no. 4, pp. 211–222, Aug. 2002.
- [J155] B. De Schutter, "Optimizing acyclic traffic signal switching sequences through an extended linear complementarity problem formulation," *European Journal of Operational Research*, vol. 139, no. 2, pp. 400–415, June 2002.
- [J156] A. Bemporad, W.P.M.H. Heemels, and B. De Schutter, "On hybrid systems and closed-loop MPC systems," *IEEE Transactions on Automatic Control*, vol. 47, no. 5, pp. 863–869, May 2002.
- [J157] T.J.J. van den Boom and B. De Schutter, "Model predictive control for perturbed max-plus-linear systems," *Systems & Control Letters*, vol. 45, no. 1, pp. 21–33, Jan. 2002.
- [J158] B. De Schutter and B. De Moor, "The QR decomposition and the singular value decomposition in the symmetrized max-plus algebra revisited," *SIAM Review*, vol. 44, no. 3, pp. 417–454, 2002.
- [J159] B. De Schutter, T. van den Boom, and A. Hegyi, "Model predictive control approach for recovery from delays in railway systems," *Transportation Research Record*, no. 1793, pp. 15–20, 2002.
- [J160] T. van den Boom and B. De Schutter, "Properties of MPC for max-plus-linear systems," *European Journal of Control*, vol. 8, no. 5, pp. 453–462, 2002.

- [J161] B. De Schutter and T. van den Boom, “Model predictive control for max-plus-linear discrete event systems,” *Automatica*, vol. 37, no. 7, pp. 1049–1056, July 2001.
- [J162] W.P.M.H. Heemels, B. De Schutter, and A. Bemporad, “Equivalence of hybrid dynamical models,” *Automatica*, vol. 37, no. 7, pp. 1085–1091, July 2001.
- [J163] B. De Schutter, “Minimal state-space realization in linear system theory: An overview,” *Journal of Computational and Applied Mathematics*, Special Issue on Numerical Analysis in the 20th Century – Vol. I: Approximation Theory, vol. 121, no. 1–2, pp. 331–354, Sept. 2000.
- [J164] B. De Schutter, “On the ultimate behavior of the sequence of consecutive powers of a matrix in the max-plus algebra,” *Linear Algebra and Its Applications*, vol. 307, no. 1–3, pp. 103–117, Mar. 2000.
- [J165] B. De Schutter, “Optimal control of a class of linear hybrid systems with saturation,” *SIAM Journal on Control and Optimization*, vol. 39, no. 3, pp. 835–851, 2000.
- [J166] B. De Schutter and B. De Moor, “On the sequence of consecutive powers of a matrix in a Boolean algebra,” *SIAM Journal on Matrix Analysis and Applications*, vol. 21, no. 1, pp. 328–354, 1999.
- [J167] B. De Schutter, V. Blondel, R. de Vries, and B. De Moor, “On the boolean minimal realization problem in the max-plus algebra,” *Systems & Control Letters*, vol. 35, no. 2, pp. 69–78, Sept. 1998.
- [J168] B. De Schutter and B. De Moor, “The Linear Dynamic Complementarity Problem is a special case of the Extended Linear Complementarity Problem,” *Systems & Control Letters*, vol. 34, no. 1–2, pp. 63–75, May 1998.
- [J169] B. De Schutter and B. De Moor, “The QR decomposition and the singular value decomposition in the symmetrized max-plus algebra,” *SIAM Journal on Matrix Analysis and Applications*, vol. 19, no. 2, pp. 378–406, Apr. 1998.
- [J170] B. De Schutter and B. De Moor, “Optimal traffic light control for a single intersection,” *European Journal of Control*, vol. 4, no. 3, pp. 260–276, 1998.
- [J171] B. De Schutter and B. De Moor, “A note on the characteristic equation in the max-plus algebra,” *Linear Algebra and Its Applications*, vol. 261, no. 1–3, pp. 237–250, Aug. 1997.
- [J172] B. De Schutter and B. De Moor, “The singular value decomposition in the extended max algebra,” *Linear Algebra and Its Applications*, vol. 250, pp. 143–176, Jan. 1997.
- [J173] B. De Schutter and B. De Moor, “A method to find all solutions of a system of multivariate polynomial equalities and inequalities in the max algebra,” *Discrete Event Dynamic Systems: Theory and Applications*, vol. 6, no. 2, pp. 115–138, Mar. 1996.
- [J174] B. De Schutter and B. De Moor, “The extended linear complementarity problem,” *Mathematical Programming*, vol. 71, no. 3, pp. 289–325, Dec. 1995.
- [J175] B. De Schutter and B. De Moor, “Minimal realization in the max algebra is an extended linear complementarity problem,” *Systems & Control Letters*, vol. 25, no. 2, pp. 103–111, May 1995.

#### 4 National journal papers (published or accepted)

- [N1] L. Buşoniu, B. De Schutter, R. Babuška, and D. Ernst, “Exploiting policy knowledge in online least-squares policy iteration: An empirical study,” *Automation, Computers, Applied Mathematics*, vol. 19, no. 4, pp. 521–529, 2010.
- [N2] Zs. Lendek, R. Babuška, and B. De Schutter, “Stability bounds for fuzzy estimation and control,” *Control Engineering and Applied Informatics*, vol. 12, no. 3, pp. 3–12, 2010.
- [N3] H. Hellendoorn, S.K. Zegeye, B. De Schutter, and E. Breunese, “Schoon en vlot snelwegverkeer,” *Verkeerskunde*, no. 7, p. 47, Nov. 2009. Summary. In Dutch. The full article can be found at <http://www.verkeerskunde.nl/milieuvriendelijkverkeersmanagement>.
- [N4] D. Doan, T. Keviczky, I. Necoara, M. Diehl, and B. De Schutter, “A distributed version of Han’s method for DMPC using local communications only,” *Control Engineering and Applied Informatics*, Special Issue on Distributed Control in Networked Systems, vol. 11, no. 3, pp. 6–15, 2009.

- [N5] A.N. Tarău, B. De Schutter, and J. Hellendoorn, “Centralized, decentralized, and distributed model predictive control for route choice in automated baggage handling systems,” *Control Engineering and Applied Informatics*, Special Issue on Distributed Control in Networked Systems, vol. 11, no. 3, pp. 24–31, 2009.
- [N6] H. Taale, S. Hoogendoorn, M. van den Berg, and B. De Schutter, “Anticiperende netwerkregelingen,” *NM Magazine*, vol. 1, no. 4, pp. 22–27, Dec. 2006. In Dutch.
- [N7] A. Hegyi, B. De Schutter, and H. Hellendoorn, “DVM nog onvoldoende benut,” *Verkeerskunde*, Special Issue on Dynamic Traffic Management, vol. 56, no. 3, pp. 40–45, Apr. 2005. In Dutch.
- [N8] A. Karimi, A. Hegyi, B. De Schutter, J. Hellendoorn, and F. Middelham, “Modelgebaseerde voorspellende regeling voor geïntegreerde optimale routegeleiding en toeritdoserings,” *Tijdschrift Vervoerswetenschap*, vol. 40, no. 2, pp. 8–14, July 2004. In Dutch.
- [N9] T. Bellemans, B. De Schutter, and B. De Moor, “Models for traffic control,” *Journal A*, vol. 43, no. 3–4, pp. 13–22, 2002.
- [N10] A. Hegyi, B. De Schutter, J. Hellendoorn, S.P. Hoogendoorn, and C. Tampère, “Kiezen voor golven, stromen of beweging,” *Verkeerskunde*, vol. 52, no. 4, pp. 32–36, 2001. In Dutch.
- [N11] R.K. Boel, B. De Schutter, G. Nijssse, J.M. Schumacher, and J.H. van Schuppen, “Approaches to modelling, analysis, and control of hybrid systems,” *Journal A*, vol. 40, no. 4, pp. 16–27, Dec. 1999.
- [N12] B. De Schutter, T. Bellemans, S. Logghe, J. Stada, B. De Moor, and B. Immers, “Advanced traffic control on highways,” *Journal A*, vol. 40, no. 4, pp. 42–51, Dec. 1999.
- [N13] B. De Moor, P. De Gerssem, B. De Schutter, and W. Favoreel, “DAISY: A database for identification of systems,” *Journal A*, vol. 38, no. 3, pp. 4–5, Sept. 1997.
- [N14] L. Ben-Naoum, R. Boel, L. Bongaerts, B. De Schutter, Y. Peng, P. Valckenaers, J. Vandewalle, and V. Wertz, “Methodologies for discrete event dynamic systems: A survey,” *Journal A*, vol. 36, no. 4, pp. 3–14, Dec. 1995.

## 5 Contributions to books (published or accepted)

- [K1] M. Burger and B. De Schutter, “Effects of water flow on energy consumption and travel times of micro-ferries for energy-efficient transport over water,” in *Transport of Water versus Transport over Water – Exploring the Dynamic Interplay Between Transport and Water* (C. Ocampo-Martinez and R. Negenborn, eds.), Cham, Switzerland: Springer, pp. 235–258, 2015.
- [K2] A. Sadowska, P.J. van Overloop, C. Burt, and B. De Schutter, “Hierarchical MPC-based control of an irrigation canal,” in *Transport of Water versus Transport over Water – Exploring the Dynamic Interplay Between Transport and Water* (C. Ocampo-Martinez and R. Negenborn, eds.), Cham, Switzerland: Springer, pp. 169–187, 2015.
- [K3] F. Valencia, J.D. López, A. Núñez, C. Portilla, L.G. Cortes, J. Espinosa, and B. De Schutter, “Congestion management in motorways and urban networks through a bargaining-game-based coordination mechanism,” in *Game Theoretic Analysis of Congestion, Safety and Security – Traffic and Transportation* (K. Hausken and J. Zhuang, eds.), *Series in Reliability Engineering*, Cham, Switzerland: Springer, pp. 1–40, 2015.
- [K4] T.J.J. van den Boom and B. De Schutter, “Model predictive control of manufacturing systems with max-plus algebra,” Chapter 12 in *Formal Methods in Manufacturing* (J. Campos, C. Seatzu, and X. Xie, eds.), *Industrial Information Technology*, CRC Press, ISBN 978-1466561557, pp. 343–378, Feb. 2014.
- [K5] M.D. Doan, T. Keviczky, and B. De Schutter, “A hierarchical MPC approach with guaranteed feasibility for dynamically coupled linear systems,” in *Distributed Model Predictive Control Made Easy* (R.R. Negenborn and J.M. Maestre, eds.), vol. 69 of *Intelligent Systems, Control and Automation: Science and Engineering*, Dordrecht, The Netherlands: Springer, ISBN 978-94-007-7005-8, pp. 393–406, 2014.

- [K6] L. Buşoniu, A. Lazaric, M. Ghavamzadeh, R. Munos, R. Babuška, and B. De Schutter, “Least-squares methods for policy iteration,” in *Reinforcement Learning: State-Of-The-Art* (M. Wiering and M. van Otterlo, eds.), vol. 12 of *Adaptation, Learning, and Optimization*, Heidelberg, Germany: Springer, ISBN 978-3-642-27644-6, pp. 75–109, 2012.
- [K7] B. De Schutter, J. Ploeg, L.D. Baskar, G. Naus, and H. Nijmeijer, “Hierarchical, intelligent and automatic controls,” Chapter 5 in *Handbook of Intelligent Vehicles* (A. Eskandarian, ed.), London, UK: Springer, ISBN 978-0-85729-084-7, pp. 81–116, 2012.
- [K8] A.N. Tarău, B. De Schutter, and H. Hellendoorn, “Hierarchical model-based control for automated baggage handling systems,” Chapter 15 in *Distributed Decision Making and Control* (R. Johansson and A. Rantzer, eds.), vol. 417 of *Lecture Notes in Control and Information Sciences*, London: Springer, ISBN 978-1-4471-2264-7, pp. 359–386, 2012.
- [K9] M. Arnold, R.R. Negenborn, G. Andersson, and B. De Schutter, “Distributed predictive control for energy hub coordination in coupled electricity and gas networks,” Chapter 10 in *Intelligent Infrastructures* (R.R. Negenborn, Z. Lukszo, and H. Hellendoorn, eds.), vol. 42 of *Intelligent Systems, Control and Automation: Science and Engineering*, Dordrecht, The Netherlands: Springer, ISBN 978-90-481-3598-1, pp. 235–273, 2010.
- [K10] L. Buşoniu, R. Babuška, and B. De Schutter, “Multi-agent reinforcement learning: An overview,” Chapter 7 in *Innovations in Multi-Agent Systems and Applications – 1* (D. Srinivasan and L.C. Jain, eds.), vol. 310 of *Studies in Computational Intelligence*, Berlin, Germany: Springer, pp. 183–221, 2010.
- [K11] L. Buşoniu, B. De Schutter, and R. Babuška, “Approximate dynamic programming and reinforcement learning,” in *Interactive Collaborative Information Systems* (R. Babuška and F.C.A. Groen, eds.), vol. 281 of *Studies in Computational Intelligence*, Berlin, Germany: Springer, ISBN 978-3-642-11687-2, pp. 3–44, 2010.
- [K12] R.R. Negenborn, G. Hug-Glanzmann, B. De Schutter, and G. Andersson, “A novel coordination strategy for multi-agent control using overlapping subnetworks with application to power systems,” in *Efficient Modeling and Control of Large-Scale Systems* (J. Mohammadpour and K.M. Grigoriadis, eds.), New York, New York: Springer, ISBN 978-1-4419-5756-6, pp. 251–278, 2010.
- [K13] B. De Schutter, H. Hellendoorn, A. Hegyi, M. van den Berg, and S.K. Zegeye, “Model-based control of intelligent traffic networks,” Chapter 11 in *Intelligent Infrastructures* (R.R. Negenborn, Z. Lukszo, and H. Hellendoorn, eds.), vol. 42 of *Intelligent Systems, Control and Automation: Science and Engineering*, Dordrecht, The Netherlands: Springer, ISBN 978-90-481-3598-1, pp. 277–310, 2010.
- [K14] J.M. van Ast, R. Babuška, and B. De Schutter, “Ant colony learning algorithm for optimal control,” in *Interactive Collaborative Information Systems* (R. Babuška and F.C.A. Groen, eds.), vol. 281 of *Studies in Computational Intelligence*, Berlin, Germany: Springer, ISBN 978-3-642-11687-2, pp. 155–182, 2010.
- [K15] P.J. van Overloop, R.R. Negenborn, B. De Schutter, and N.C. van de Giesen, “Predictive control for national water flow optimization in The Netherlands,” Chapter 17 in *Intelligent Infrastructures* (R.R. Negenborn, Z. Lukszo, and H. Hellendoorn, eds.), vol. 42 of *Intelligent Systems, Control and Automation: Science and Engineering*, Dordrecht, The Netherlands: Springer, ISBN 978-90-481-3598-1, pp. 439–461, 2010.
- [K16] A. Bemporad, M.K. Çamlıbel, W.P.M.H. Heemels, A.J. van der Schaft, J.M. Schumacher, and B. De Schutter, “Further switched systems,” Chapter 5 in *Handbook of Hybrid Systems Control – Theory, Tools, Applications* (J. Lunze and F. Lamnabhi-Lagarigue, eds.), Cambridge, UK: Cambridge University Press, ISBN 978-0-521-76505-3, pp. 139–192, 2009.
- [K17] W.P.M.H. Heemels, D. Lehmann, J. Lunze, and B. De Schutter, “Introduction to hybrid systems,” Chapter 1 in *Handbook of Hybrid Systems Control – Theory, Tools, Applications* (J. Lunze and F. Lamnabhi-Lagarigue, eds.), Cambridge, UK: Cambridge University Press, ISBN 978-0-521-76505-3, pp. 3–30, 2009.

- [K18] A. Hegyi, T. Bellemans, and B. De Schutter, “Freeway traffic management and control,” in *Encyclopedia of Complexity and Systems Science* (R.A. Meyers, ed.), New York, New York: Springer, ISBN 978-0-387-30440-3, pp. 3943–3964, 2009.
- [K19] B. De Schutter, W.P.M.H. Heemels, J. Lunze, and C. Prieur, “Survey of modeling, analysis, and control of hybrid systems,” Chapter 2 in *Handbook of Hybrid Systems Control – Theory, Tools, Applications* (J. Lunze and F. Lamnabhi-Lagarrigue, eds.), Cambridge, UK: Cambridge University Press, ISBN 978-0-521-76505-3, pp. 31–55, 2009.
- [K20] L. Buşoniu, D. Ernst, B. De Schutter, and R. Babuška, “Continuous-state reinforcement learning with fuzzy approximation,” in *Adaptive Agents and Multi-Agent Systems III. Adaptation and Multi-Agent Learning* (K. Tuyls, A. Nowé, Z. Guessoum, and D. Kudenko, eds.), vol. 4865 of *Lecture Notes in Computer Science*, Berlin, Germany: Springer, ISBN 978-3-540-77947-6, pp. 27–43, 2008.
- [K21] B. De Schutter, “The extended linear complementarity problem and its applications in analysis and control of discrete-event systems,” in *Pareto Optimality, Game Theory and Equilibria* (A. Chinchuluun, P.M. Pardalos, A. Migdalas, and L. Pitsoulis, eds.), vol. 17 of *Springer Optimization and Its Applications*, New York, New York: Springer, ISBN 978-0-387-77246-2, pp. 541–570, 2008.
- [K22] G. Jiroveanu, B. De Schutter, and R.K. Boel, “The on-line diagnosis of time Petri nets based on partial orders,” Chapter 21 in *Taming Heterogeneity and Complexity of Embedded Control* (F. Lamnabhi-Lagarrigue, S. Laghrouche, A. Loria, and E. Panteley, eds.), London, UK: ISTE, ISBN 978-1-905209-65-1, pp. 363–391, Jan. 2007.
- [K23] R.T. van Katwijk, P. van Koningsbruggen, B. De Schutter, and J. Hellendoorn, “A test bed for multi-agent control systems in road traffic management,” in *Applications of Agent Technology in Traffic and Transportation* (F. Klügl, A. Bazzan, and S. Ossowski, eds.), *Whitestein Series in Software Agent Technologies*, Basel, Switzerland: Birkhäuser Verlag, ISBN 3-7643-7258-3, pp. 113–131, 2005.
- [K24] G.J. Olsder and B. De Schutter, “The minimal realization problem in the max-plus algebra,” Chapter 32 in *Open Problems in Mathematical Systems and Control Theory* (V.D. Blondel, E.D. Sontag, M. Vidyasagar, and J.C. Willems, eds.), London, UK: Springer, ISBN 1-85233-044-9, pp. 157–162, 1999.
- [K25] B. De Schutter and B. De Moor, “The extended linear complementarity problem and its applications in the max-plus algebra,” in *Complementarity and Variational Problems: State of the Art* (M.C. Ferris and J.S. Pang, eds.), Philadelphia, Pennsylvania: SIAM, ISBN 0-89871-391-9, pp. 22–39, 1997.

## 6 International conference papers (published or accepted)

- [C1] M. Picallo Cruz, A. Anta, A. Panosyan, and B. De Schutter, “A two-step distribution system state estimator with grid constraints and mixed measurements,” *Proceedings of the 20th Power Systems Computation Conference*, Dublin, Ireland, June 2018.
- [C2] J.R.D. Frejo, I. Papamichail, M. Papageorgiou, and B. De Schutter, “A new macroscopic model for variable speed limits,” *Proceedings of the 15thIFAC Symposium on Control in Transportation Systems (CTS 2018)*, Savona, Italy, June 2018.
- [C3] S. Lin, T.L. Pan, W.H.K. Lam, R.X. Zhong, and B. De Schutter, “Stochastic link flow model for signalized traffic networks with uncertainty in demand,” *Proceedings of the 15thIFAC Symposium on Control in Transportation Systems (CTS 2018)*, Savona, Italy, June 2018.
- [C4] X. Luan, B. De Schutter, T. van den Boom, F. Corman, and G. Lodewijks, “Distributed optimization for real-time railway traffic management,” *Proceedings of the 15thIFAC Symposium on Control in Transportation Systems (CTS 2018)*, Savona, Italy, June 2018.
- [C5] Z. Su and B. De Schutter, “Optimal scheduling of track maintenance activities for railway networks,” *Proceedings of the 15thIFAC Symposium on Control in Transportation Systems (CTS 2018)*, Savona, Italy, June 2018.

- [C6] T.J.J. van den Boom, H. de Bruijn, B. De Schutter, and L. Ozkan, “The interaction between scheduling and control of semi-cyclic hybrid systems,” *Proceedings of the 14th International Workshop on Discrete Event Systems*, Sorrento Coast, Italy, May–June 2018.
- [C7] J.R. Frejo and B. De Schutter, “A variable speed limit controller for recurrent congestion based on the optimal solution,” *Proceedings of the 97th Annual Meeting of the Transportation Research Board*, Washington, DC, 14 pp., Jan. 2018. Paper 18-01084.
- [C8] X. Luan, B. De Schutter, F. Corman, and G. Lodewijks, “Integrating dynamic signaling commands under fixed-block signaling systems into train dispatching optimization models,” *Proceedings of the 97th Annual Meeting of the Transportation Research Board*, Washington, DC, Jan. 2018. Paper 18-01197.
- [C9] F. Alavi, N. van de Wouw, and B. De Schutter, “Power scheduling in islanded-mode microgrids using fuel cell vehicles,” *Proceedings of the 56th IEEE Conference on Decision and Control*, Melbourne, Australia, pp. 5056–5061, Dec. 2017.
- [C10] I. Sarantis, F. Alavi, and B. De Schutter, “Optimal power scheduling of fuel-cell-car-based microgrids,” *Proceedings of the 56th IEEE Conference on Decision and Control*, Melbourne, Australia, pp. 5062–5067, Dec. 2017.
- [C11] R. van Kooten, P. Imhof, K. Brummelhuis, M. van Pampus, A. Jamshidnejad, and B. De Schutter, “ART-UTC: An adaptive real-time urban traffic control strategy,” *Proceedings of the 2017 IEEE 20th International Conference on Intelligent Transportation Systems (IEEE ITSC 2017)*, Yokohama, Japan, pp. 1547–1552, Oct. 2017.
- [C12] M.D. Doan, M. Diehl, T. Keviczky, and B. De Schutter, “A Jacobi decomposition algorithm for distributed convex optimization in distributed model predictive control,” *Proceedings of the 20th IFAC World Congress*, Toulouse, France, pp. 4905–4911, July 2017.
- [C13] J. Xu, L. Buşoniu, and B. De Schutter, “Near-optimal control with adaptive receding horizon for discrete-time piecewise affine systems,” *Proceedings of the 20th IFAC World Congress*, Toulouse, France, pp. 4168–4173, July 2017.
- [C14] S. Yuan, B. De Schutter, and S. Baldi, “On robust adaptive control of switched linear systems,” *Proceedings of the 13th IEEE International Conference on Control Applications*, Ohrid, Macedonia, pp. 753–758, July 2017.
- [C15] Z. Su, S. Baldi, and B. De Schutter, “Optimal nonlinear solutions for reverse Stackelberg games with incomplete information,” *Proceedings of the 55th IEEE Conference on Decision and Control*, Las Vegas, Nevada, pp. 5304–5309, Dec. 2016.
- [C16] A. Jamshidnejad, I. Papamichail, H. Hellendoorn, M. Papageorgiou, and B. De Schutter, “Gradient-based model-predictive control for green urban mobility in traffic networks,” *Proceedings of the 2016 IEEE 19th International Conference on Intelligent Transportation Systems*, Rio de Janeiro, Brazil, pp. 1077–1082, Nov. 2016.
- [C17] S. Liu, A. Sadowska, H. Hellendoorn, and B. De Schutter, “Scenario-based distributed model predictive control for freeway networks,” *Proceedings of the 2016 IEEE 19th International Conference on Intelligent Transportation Systems*, Rio de Janeiro, Brazil, pp. 1779–1784, Nov. 2016.
- [C18] Z. Su, A. Núñez, S. Baldi, and B. De Schutter, “Model predictive control for rail condition-based maintenance: A multilevel approach,” *Proceedings of the 2016 IEEE 19th International Conference on Intelligent Transportation Systems*, Rio de Janeiro, Brazil, pp. 354–359, Nov. 2016.
- [C19] V. Rostampour, D. Adzkiya, S. Esmaeil Zadeh Soudjani, B. De Schutter, and T. Keviczky, “Chance-constrained model predictive controller synthesis for stochastic max-plus linear systems,” *Proceedings of the 2016 IEEE International Conference on Systems, Man, and Cybernetics*, Budapest, Hungary, Oct. 2016.
- [C20] S. Faghieh-Roohi, S. Hajizadeh, A. Núñez, R. Babuska, and B. De Schutter, “Deep convolutional neural networks for detection of rail surface defects,” *Proceedings of the 2016 International Joint Conference on Neural Networks (IJCNN 2016)*, Vancouver, Canada, pp. 2584–2589, July 2016.

- [C21] J. Xu, T.J.J. van den Boom, L. Buşoniu, and B. De Schutter, “Model predictive control for continuous piecewise affine systems using optimistic optimization,” *Proceedings of the 2016 American Control Conference*, Boston, Massachusetts, pp. 4482–4487, July 2016.
- [C22] F. Alavi, N. van de Wouw, and B. De Schutter, “Min-max control of fuel-cell-car-based smart energy systems,” *Proceedings of the 2016 European Control Conference*, Aalborg, Denmark, pp. 1223–1228, June–July 2016.
- [C23] S.S. Farahani, Z. Lukszo, T. Keviczky, B. De Schutter, and R.M. Murray, “Robust model predictive control for an uncertain smart thermal grid,” *Proceedings of the 2016 European Control Conference*, Aalborg, Denmark, pp. 1195–1200, June–July 2016.
- [C24] D.J. Nativ, A. Cataldo, R. Scattolini, and B. De Schutter, “Model predictive control of an automated storage/retrieval system,” *Proceedings of the 8th IFAC Conference on Manufacturing Modelling, Management and Control (MIM 2016)*, Troyes, France, pp. 1335–1340, June 2016.
- [C25] A. Jamshidi, S. Faghieh-Roohi, A. Núñez, R. Babuška, B. De Schutter, R. Dollevoet, and Z. Li, “Probabilistic defect-based risk assessment approach for rail failures in railway infrastructure,” *Proceedings of the 14th IFAC Symposium on Control in Transportation Systems (CTS 2016)*, Istanbul, Turkey, pp. 73–77, May 2016.
- [C26] A. Jamshidnejad, I. Papamichail, M. Papageorgiou, and B. De Schutter, “A model-predictive urban traffic control approach with a modified flow model and endpoint penalties,” *Proceedings of the 14th IFAC Symposium on Control in Transportation Systems (CTS 2016)*, Istanbul, Turkey, pp. 147–152, May 2016.
- [C27] R. Luo, T.J.J. van den Boom, and B. De Schutter, “Parameterized dynamic routing of a fleet of cybercars,” *Proceedings of the 14th IFAC Symposium on Control in Transportation Systems (CTS 2016)*, Istanbul, Turkey, pp. 55–60, May 2016.
- [C28] C. Pasquale, S. Sacone, S. Siri, and B. De Schutter, “A multi-class ramp metering and routing control scheme to reduce congestion and traffic emissions in freeway networks,” *Proceedings of the 14th IFAC Symposium on Control in Transportation Systems (CTS 2016)*, Istanbul, Turkey, pp. 329–334, May 2016.
- [C29] J. Xu, L. Buşoniu, T.J.J. van den Boom, and B. De Schutter, “Receding-horizon control for max-plus linear systems with discrete actions using optimistic planning,” *Proceedings of the 13th International Workshop on Discrete Event Systems*, Xi’an, China, pp. 398–403, May–June 2016.
- [C30] M. Vallati, D. Magazzeni, B. De Schutter, L. Chrapa, and T.L. McCluskey, “Efficient macroscopic urban traffic models for reducing congestion: A PDDL+ planning approach,” *Proceedings of the Thirtieth AAAI Conference on Artificial Intelligence (AAAI-16)*, Phoenix, Arizona, pp. 3188–3194, Feb. 2016.
- [C31] Y. Wang, S. Su, X. Pan, F. Cao, T. Tang, B. Ning, and B. De Schutter, “Integrated line planning and train scheduling for an urban rail transit line,” *Proceedings of the 95th Annual Meeting of the Transportation Research Board*, Washington, DC, Jan. 2016. Paper 16-2230.
- [C32] A. Firooznia, R. Bourdais, and B. De Schutter, “A distributed algorithm to determine lower and upper bounds in branch and bound for hybrid model predictive control,” *Proceedings of the 54th IEEE Conference on Decision and Control*, Osaka, Japan, pp. 1736–1741, Dec. 2015.
- [C33] R. Luo, R. Bourdais, T.J.J. van den Boom, and B. De Schutter, “Integration of resource allocation coordination and branch-and-bound,” *Proceedings of the 54th IEEE Conference on Decision and Control*, Osaka, Japan, pp. 4272–4277, Dec. 2015.
- [C34] F. Acquaviva, A. Núñez, D. Di Paola, A. Rizzo, and B. De Schutter, “Customer-oriented optimal vehicle assignment in mobility-on-demand systems,” *Proceedings of the 2015 IEEE 18th International Conference on Intelligent Transportation Systems*, Las Palmas de Gran Canaria, Spain, pp. 2849–2854, Sept. 2015.
- [C35] A. Jamshidnejad, H. Hellendoorn, S. Lin, and B. De Schutter, “Smoothing for efficient solution of model predictive control for urban traffic networks considering endpoint penalties,” *Proceedings of the 2015 IEEE 18th International Conference on Intelligent Transportation Systems*, Las Palmas de Gran Canaria, Spain, pp. 2837–2842, Sept. 2015.



- [C36] C. Pasquale, S. Liu, S. Siri, S. Sacone, and B. De Schutter, “A new emission model including on-ramps for two-class freeway traffic control,” *Proceedings of the 2015 IEEE 18th International Conference on Intelligent Transportation Systems*, Las Palmas de Gran Canaria, Spain, pp. 1143–1149, Sept. 2015.
- [C37] G.S. van de Weg, A. Hegyi, S.P. Hoogendoorn, and B. De Schutter, “Efficient model predictive control for variable speed limits by optimizing parameterized control schemes,” *Proceedings of the 2015 IEEE 18th International Conference on Intelligent Transportation Systems*, Las Palmas de Gran Canaria, Spain, pp. 1137–1142, Sept. 2015.
- [C38] K. Verbert, B. De Schutter, and R. Babuška, “Reasoning under uncertainty for knowledge-based fault diagnosis: A comparative study,” *Proceedings of the 9th IFAC Symposium on Fault Detection, Supervision and Safety of Technical Processes (SafeProcess 2015)*, Paris, France, pp. 422–427, Sept. 2015.
- [C39] A. Jamshidnejad, B. De Schutter, and M.J. Mahjoob, “Urban traffic control using a fuzzy multi-agent system,” *Proceedings of the 2015 European Control Conference*, Linz, Austria, pp. 3046–3051, July 2015.
- [C40] A. Sadowska, P.-J. van Overloop, J.M. Maestre, and B. De Schutter, “Human-in-the-loop control of an irrigation canal using time instant optimization model predictive control,” *Proceedings of the 2015 European Control Conference*, Linz, Austria, pp. 3279–3284, July 2015.
- [C41] K. Verbert, B. De Schutter, and R. Babuška, “Exploiting spatial and temporal dependencies to enhance fault diagnosis: Application to railway track circuits,” *Proceedings of the 2015 European Control Conference*, Linz, Austria, pp. 3052–3057, July 2015.
- [C42] A. Jamshidnejad and B. De Schutter, “An iterative procedure for estimating the generalized average speed using microscopic point measurements,” *Proceedings of the 2015 International Conference on Models and Technologies for Intelligent Transportation Systems (MT-ITS)*, Budapest, Hungary, pp. 38–44, June 2015.
- [C43] A. Jamshidnejad, M. Papageorgiou, I. Papamichail, and B. De Schutter, “A multi-objective model-predictive control approach dealing with congestion and emissions in urban traffic networks,” *Proceedings of the 1st ARTS ECR Conference*, La Valletta, Malta, 6 pp., May 2015.
- [C44] B. Kersbergen, T. van den Boom, and B. De Schutter, “Improved distributed model predictive control for rescheduling of railway traffic by manipulation of the cost functions,” *Proceedings of the 6th International Conference on Railway Operations Modelling and Analysis (RailTokyo2015)*, Narashino, Japan, 13 pp., Mar. 2015. Paper 025.
- [C45] L. Li, X. Lin, R.R. Negenborn, and B. De Schutter, “Pricing intermodal freight transport services: A cost-plus-pricing strategy,” in *Computational Logistics* (Proceedings of the 6th International Conference on Computational Logistics (ICCL’15), Delft, The Netherlands, Sept. 2015) (F. Corman, S. Voß, and R.R. Negenborn, eds.), *Lecture Notes in Computer Science*, Cham, Switzerland: Springer, ISBN 978-3-319-24263-7, pp. 541–556, 2015.
- [C46] Z. Su, A. Núñez, A. Jamshidi, S. Baldi, Z. Li, R. Dollevoet, and B. De Schutter, “Model predictive control for maintenance operations planning of railway infrastructures,” in *Computational Logistics* (Proceedings of the 6th International Conference on Computational Logistics (ICCL’15), Delft, The Netherlands, Sept. 2015) (F. Corman, S. Voß, and R.R. Negenborn, eds.), *Lecture Notes in Computer Science*, Cham, Switzerland: Springer, ISBN 978-3-319-24263-7, pp. 673–688, 2015.
- [C47] M. Hajiahmadi, B. De Schutter, and H. Hellendoorn, “Robust  $H_\infty$  control of a class of switched nonlinear systems with application to macroscopic urban traffic control,” *Proceedings of the 53rd IEEE Conference on Decision and Control*, Los Angeles, California, pp. 1727–1732, Dec. 2014.
- [C48] K. Máthé, L. Buşoni, R. Munos, and B. De Schutter, “Optimistic planning with a limited number of action switches for near-optimal nonlinear control,” *Proceedings of the 53rd IEEE Conference on Decision and Control*, Los Angeles, California, pp. 3518–3523, Dec. 2014.
- [C49] T.J.J. van den Boom and B. De Schutter, “Analytic expressions in stochastic max-plus-linear algebra,” *Proceedings of the 53rd IEEE Conference on Decision and Control*, Los Angeles, California, pp. 1608–1613, Dec. 2014.

- [C50] J. Xu, T.J.J. van den Boom, and B. De Schutter, “Irredundant lattice piecewise affine representations and their applications in explicit model predictive control,” *Proceedings of the 53rd IEEE Conference on Decision and Control*, Los Angeles, California, pp. 4416–4421, Dec. 2014.
- [C51] Z. Cong, B. De Schutter, M. Burger, and R. Babuška, “Monitoring of traffic networks using mobile sensors,” *Proceedings of the 17th International IEEE Conference on Intelligent Transportation Systems (ITSC 2014)*, Qingdao, China, pp. 792–797, Oct. 2014.
- [C52] B. Kersbergen, T. van den Boom, and B. De Schutter, “Distributed model predictive control for rescheduling of railway traffic,” *Proceedings of the 17th International IEEE Conference on Intelligent Transportation Systems (ITSC 2014)*, Qingdao, China, pp. 2732–2737, Oct. 2014.
- [C53] L. Li, R.R. Negenborn, and B. De Schutter, “Multi-agent cooperative transport planning of inter-modal freight transport,” *Proceedings of the 17th International IEEE Conference on Intelligent Transportation Systems (ITSC 2014)*, Qingdao, China, pp. 2465–2471, Oct. 2014.
- [C54] S. Liu, J.R.D. Frejo, A. Núñez, B. De Schutter, A. Sadowska, H. Hellendoorn, and E.F. Camacho, “Tractable robust predictive control approaches for freeway networks,” *Proceedings of the 17th International IEEE Conference on Intelligent Transportation Systems (ITSC 2014)*, Qingdao, China, pp. 1857–1862, Oct. 2014.
- [C55] H. Majid, M. Hajiahmadi, B. De Schutter, H. Abouaïssa, and D. Jolly, “Distributed model predictive control of freeway traffic networks: A serial partially cooperative approach,” *Proceedings of the 17th International IEEE Conference on Intelligent Transportation Systems (ITSC 2014)*, Qingdao, China, pp. 1876–1881, Oct. 2014.
- [C56] A. Núñez, J. Hendriks, Z. Li, B. De Schutter, and R. Dollevoet, “Facilitating maintenance decisions on the Dutch railways using big data: The ABA case study,” *Proceedings of the 2014 IEEE International Conference on Big Data*, Washington, DC, pp. 48–53, Oct. 2014.
- [C57] S. Liu, B. De Schutter, and H. Hellendoorn, “Model predictive traffic control based on a new multi-class METANET model,” *Proceedings of the 19th IFAC World Congress*, Cape Town, South Africa, pp. 8781–8786, Aug. 2014.
- [C58] B. Dekens, A.D. Sadowska, P.J. van Overloop, D. Schwanenberg, and B. De Schutter, “Gradient-based hybrid model predictive control using time instant optimization for Dutch regional water systems,” *Proceedings of the 2014 European Control Conference*, Strasbourg, France, pp. 1343–1348, June 2014.
- [C59] S. Liu, B. De Schutter, and H. Hellendoorn, “Integrated traffic flow and emission control based on FASTLANE and the multi-class VT-macro model,” *Proceedings of the 2014 European Control Conference*, Strasbourg, France, pp. 2908–2913, June 2014.
- [C60] R. Luo, T.J.J. van den Boom, and B. De Schutter, “Modeling of the dynamics and the energy consumption of a fleet of cybercars,” *Proceedings of the 2014 European Control Conference*, Strasbourg, France, pp. 720–725, June 2014.
- [C61] A. Sadowska, B. De Schutter, and P.-J. van Overloop, “Hierarchical control of irrigation canals in the presence of disturbances: Framework and comparison,” *Proceedings of the 2014 European Control Conference*, Strasbourg, France, pp. 1349–1354, June 2014.
- [C62] B. De Schutter, “Model predictive traffic control for green mobility,” *Proceedings of the 2014 European Control Conference*, Strasbourg, France, pp. 2260–2263, June 2014.
- [C63] D. Adzkiya, B. De Schutter, and A. Abate, “Backward reachability of autonomous max-plus-linear systems,” *Proceedings of the 12th IFAC/IEEE Workshop on Discrete Event Systems*, Cachan, France, pp. 117–122, May 2014.
- [C64] J. Xu, B. De Schutter, and T.J.J. van den Boom, “Model predictive control for max-plus-linear systems via optimistic optimization,” *Proceedings of the 12th IFAC/IEEE Workshop on Discrete Event Systems*, Cachan, France, pp. 111–116, May 2014.
- [C65] D. Adzkiya, B. De Schutter, and A. Abate, “Forward reachability computation for autonomous max-plus-linear systems,” *Proceedings of the 20th International Conference on Tools and Algorithms for the Construction and Analysis of Systems (TACAS 2014)*, Grenoble, France, pp. 248–262, Apr. 2014.

- [C66] Z. Cong, B. De Schutter, and R. Babuška, “Co-optimization of topology design and parameterized control in a traffic network,” *Proceedings of the 93rd Annual Meeting of the Transportation Research Board*, Washington, DC, 12 pp., Jan. 2014. Paper 14-2951.
- [C67] L. Li, R.R. Negenborn, and B. De Schutter, “A receding horizon approach for container flow assignment in intermodal freight transport,” *Proceedings of the 93rd Annual Meeting of the Transportation Research Board*, Washington, DC, 14 pp., Jan. 2014. Paper 14-0088.
- [C68] Y. Wang, B. De Schutter, T.J.J. van den Boom, B. Ning, and T. Tang, “Origin-destination dependent train scheduling problem with stop-skipping for urban rail transit systems,” *Proceedings of the 93rd Annual Meeting of the Transportation Research Board*, Washington, DC, 16 pp., Jan. 2014. Paper 14-1881.
- [C69] M. Hajiahmadi, B. De Schutter, and H. Hellendoorn, “Robust  $H_\infty$  control for switched nonlinear systems with application to high-level urban traffic control,” *Proceedings of the 52nd IEEE Conference on Decision and Control*, Florence, Italy, pp. 899–904, Dec. 2013.
- [C70] I. Necoara, V. Nedelcu, T. Keviczky, M.D. Doan, and B. De Schutter, “Linear model predictive control based on approximate optimal control inputs and constraint tightening,” *Proceedings of the 52nd IEEE Conference on Decision and Control*, Florence, Italy, pp. 7728–7733, Dec. 2013.
- [C71] T.J.J. van den Boom, G.D. Lopes, and B. De Schutter, “A modeling framework for model predictive scheduling using switching max-plus linear models,” *Proceedings of the 52nd IEEE Conference on Decision and Control*, Florence, Italy, pp. 5456–5461, Dec. 2013.
- [C72] Y. Zeinaly, B. De Schutter, and H. Hellendoorn, “Towards a robust multi-level control approach for baggage handling systems,” *Proceedings of the 52nd IEEE Conference on Decision and Control*, Florence, Italy, pp. 281–287, Dec. 2013.
- [C73] M. Hajiahmadi, V.L. Knoop, B. De Schutter, and H. Hellendoorn, “Optimal dynamic route guidance: A model predictive approach using the macroscopic fundamental diagram,” *Proceedings of the 16th International IEEE Conference on Intelligent Transportation Systems (ITSC 2013)*, The Hague, The Netherlands, pp. 1022–1028, Oct. 2013.
- [C74] B. Kersbergen, T. van den Boom, and B. De Schutter, “Reducing the time needed to solve the global rescheduling problem for railway networks,” *Proceedings of the 16th International IEEE Conference on Intelligent Transportation Systems (ITSC 2013)*, The Hague, The Netherlands, pp. 791–796, Oct. 2013.
- [C75] L. Li, R.R. Negenborn, and B. De Schutter, “A sequential linear programming approach for flow assignment in intermodal freight transport,” *Proceedings of the 16th International IEEE Conference on Intelligent Transportation Systems (ITSC 2013)*, The Hague, The Netherlands, pp. 1224–1230, Oct. 2013.
- [C76] S. Liu, B. De Schutter, and H. Hellendoorn, “Multi-class traffic flow and emission control for free-way networks,” *Proceedings of the 16th International IEEE Conference on Intelligent Transportation Systems (ITSC 2013)*, The Hague, The Netherlands, pp. 2223–2228, Oct. 2013.
- [C77] Y. Wang, B. De Schutter, T.J.J. van den Boom, B. Ning, and T. Tang, “Real-time scheduling for trains in urban rail transit systems using nonlinear optimization,” *Proceedings of the 16th International IEEE Conference on Intelligent Transportation Systems (ITSC 2013)*, The Hague, The Netherlands, pp. 1334–1339, Oct. 2013.
- [C78] Y. Zeinaly, B. De Schutter, and H. Hellendoorn, “A model predictive approach for baggage handling systems,” *Proceedings of the 16th International IEEE Conference on Intelligent Transportation Systems (ITSC 2013)*, The Hague, The Netherlands, pp. 687–693, Oct. 2013.
- [C79] A. Núñez, C. Ocampo-Martinez, B. De Schutter, F. Valencia, J.D. López, and J. Espinosa, “A multiobjective-based switching topology for hierarchical model predictive control applied to a hydro-power valley,” *Proceedings of the 3rd IFAC International Conference on Intelligent Control and Automation Science (ICONS 2013)*, Chengdu, China, pp. 534–539, Sept. 2013.
- [C80] Y. Wang, B. De Schutter, T. van den Boom, B. Ning, and T. Tang, “Real-time scheduling for single lines in urban rail transit systems,” *Proceedings of the 2013 IEEE International Conference on Intelligent Rail Transportation (2013 IEEE ICIRT)*, Beijing, China, Aug.–Sept. 2013. Paper 108.

- [C81] J.R.D. Frejo, A. Núñez, B. De Schutter, and E.F. Camacho, “Model predictive control for freeway traffic using discrete speed limit signals,” *Proceedings of the 2013 European Control Conference*, Zürich, Switzerland, pp. 4033–4038, July 2013.
- [C82] N. Groot, B. De Schutter, and H. Hellendoorn, “Optimal leader functions for the reverse Stackelberg game: Splines and basis functions,” *Proceedings of the 2013 European Control Conference*, Zürich, Switzerland, pp. 696–701, July 2013.
- [C83] M. Hajiahmadi, J. Haddad, B. De Schutter, and N. Geroliminis, “Optimal hybrid macroscopic traffic control for urban regions: Perimeter and switching signal plans controllers,” *Proceedings of the 2013 European Control Conference*, Zürich, Switzerland, pp. 3500–3505, July 2013.
- [C84] Y. Wang, B. De Schutter, T. van den Boom, and B. Ning, “Optimal trajectory planning for trains under a moving block signaling system,” *Proceedings of the 2013 European Control Conference*, Zürich, Switzerland, pp. 4556–4561, July 2013.
- [C85] D. Adzkiya, B. De Schutter, and A. Abate, “Finite abstractions of nonautonomous max-plus-linear systems,” *Proceedings of the 2013 American Control Conference*, Washington, DC, pp. 4393–4398, June 2013.
- [C86] Z. Cong, B. De Schutter, and R. Babuška, “On the convergence of ant colony optimization with stench pheromone,” *2013 IEEE Congress on Evolutionary Computation*, Cancún, Mexico, pp. 1876–1883, June 2013.
- [C87] A. Núñez, B. De Schutter, C.R. Portilla, F. Valencia, and J.J. Espinosa, “Including bicycling in a multimodal urban street intersection: A model-based predictive control approach,” *Proceedings of the 8th Triennial Symposium on Transportation Analysis (TRISTAN VIII)*, San Pedro de Atacama, Chile, 4 pp., June 2013.
- [C88] C.R. Portilla, L.G. Cortes, F. Valencia, J.D. López, J.J. Espinosa, A. Núñez, and B. De Schutter, “Decentralized model-based predictive control for urban traffic control,” *Proceedings of the 8th Triennial Symposium on Transportation Analysis (TRISTAN VIII)*, San Pedro de Atacama, Chile, 5 pp., June 2013.
- [C89] B. Kersbergen, T. van den Boom, and B. De Schutter, “On implicit versus explicit max-plus modeling for the rescheduling of trains,” *Proceedings of the 5th International Seminar on Railway Operations Modelling and Analysis (RailCopenhagen)*, Copenhagen, Denmark, 15 pp., May 2013.
- [C90] Y. Wang, B. De Schutter, T.J.J. van den Boom, and B. Ning, “A suboptimal control scheme of multiple trains based on mode vector constraints,” *Proceedings of the 5th International Seminar on Railway Operations Modelling and Analysis (RailCopenhagen)*, Copenhagen, Denmark, 12 pp., May 2013.
- [C91] M. Burger and B. De Schutter, “Energy-efficient transportation over flowing water,” *Proceedings of the 10th IEEE International Conference on Networking, Sensing and Control*, Paris, France, 6 pp., Apr. 2013. Paper ThC02.4.
- [C92] Z. Cong, B. De Schutter, and R. Babuška, “Optimal routing in freeway networks via sequential linear programming,” *Proceedings of the 10th IEEE International Conference on Networking, Sensing and Control*, Paris, France, 6 pp., Apr. 2013. Paper FrB01.5.
- [C93] L. Li, R.R. Negenborn, and B. De Schutter, “A general framework for modeling intermodal transport networks,” *Proceedings of the 10th IEEE International Conference on Networking, Sensing and Control*, Paris, France, 7 pp., Apr. 2013. Paper FrA02.3.
- [C94] A. Sadowska, B. De Schutter, and P.-J. van Overloop, “Event-driven hierarchical control of irrigation canals,” *Proceedings of the USCID Seventh International Conference on Irrigation and Drainage*, Phoenix, Arizona, pp. 457–471, Apr. 2013.
- [C95] Y. Zeinaly, B. De Schutter, and H. Hellendoorn, “An MPC scheme for routing problem in baggage handling systems: A linear programming approach,” *Proceedings of the 10th IEEE International Conference on Networking, Sensing and Control*, Paris, France, 6 pp., Apr. 2013. Paper ThB01.01.
- [C96] M. Hajiahmadi, R. Corthout, C. Tampère, B. De Schutter, and J. Hellendoorn, “Variable speed limit control based on the extended link transmission model,” *Proceedings of the 92nd Annual Meeting of the Transportation Research Board*, Washington, DC, 15 pp., Jan. 2013. Paper 13-0409.

- [C97] N. Groot, B. De Schutter, and H. Hellendoorn, “A full characterization of the set of optimal affine solutions to the reverse Stackelberg game,” *Proceedings of the 51st IEEE Conference on Decision and Control*, Maui, Hawaii, pp. 6483–6488, Dec. 2012.
- [C98] G.A.D. Lopes, B. De Schutter, and T.J.J. van den Boom, “On the synchronization of cyclic discrete-event systems,” *Proceedings of the 51st IEEE Conference on Decision and Control*, Maui, Hawaii, pp. 5810–5815, Dec. 2012.
- [C99] A. Núñez and B. De Schutter, “Distributed identification of fuzzy confidence intervals for traffic measurements,” *Proceedings of the 51st IEEE Conference on Decision and Control*, Maui, Hawaii, pp. 6995–7000, Dec. 2012.
- [C100] T.J.J. van den Boom, B. Kersbergen, and B. De Schutter, “Structured modeling, analysis, and control of complex railway operations,” *Proceedings of the 51st IEEE Conference on Decision and Control*, Maui, Hawaii, pp. 7366–7371, Dec. 2012.
- [C101] N. Groot, B. De Schutter, and H. Hellendoorn, “Reverse Stackelberg games, Part I: Basic framework,” *Proceedings of the 2012 IEEE International Conference on Control Applications*, Dubrovnik, Croatia, pp. 421–426, Oct. 2012.
- [C102] N. Groot, B. De Schutter, and H. Hellendoorn, “Reverse Stackelberg games, Part II: Results and open issues,” *Proceedings of the 2012 IEEE International Conference on Control Applications*, Dubrovnik, Croatia, pp. 427–432, Oct. 2012.
- [C103] Z. Hidayat, A. Núñez, R. Babuška, and B. De Schutter, “Identification of distributed-parameter systems with missing data,” *Proceedings of the 2012 IEEE International Conference on Control Applications*, Dubrovnik, Croatia, pp. 1014–1019, Oct. 2012.
- [C104] S. van Loenhout, T. van den Boom, S. Farahani, and B. De Schutter, “Model predictive control for stochastic switching max-plus-linear systems,” *Proceedings of the 11th International Workshop on Discrete Event Systems (WODES 2012)* (A. Ramírez Treviño, E. López Mellado, J.J. Lesage, and M. Silva, eds.), Guadalajara, Mexico, pp. 79–84, Oct. 2012.
- [C105] M. Burger, B. De Schutter, and H. Hellendoorn, “An improved method for solving micro-ferry scheduling problems,” *Proceedings of the 1st European Symposium on Quantitative Methods in Transportation Systems (LATSIS 2012)*, Lausanne, Switzerland, 8 pp., Sept. 2012. Paper 56.
- [C106] M. Burger, B. De Schutter, and J. Hellendoorn, “Micro-ferry scheduling problem with charging and embarking times,” *Proceedings of the 13th IFAC Symposium on Control in Transportation Systems (CTS’2012)*, Sofia, Bulgaria, pp. 95–102, Sept. 2012.
- [C107] N. Groot, B. De Schutter, and H. Hellendoorn, “Achieving system-optimal splitting rates in a freeway network using a reverse Stackelberg approach,” *Proceedings of the 13th IFAC Symposium on Control in Transportation Systems (CTS’2012)*, Sofia, Bulgaria, pp. 132–137, Sept. 2012.
- [C108] N. Groot, B. De Schutter, and H. Hellendoorn, “Dynamic optimal routing based on a reverse Stackelberg game approach,” *Proceedings of the 15th International IEEE Conference on Intelligent Transportation Systems (ITSC 2012)*, Anchorage, Alaska, pp. 782–787, Sept. 2012.
- [C109] N. Groot, B. De Schutter, and H. Hellendoorn, “Existence conditions for an optimal affine leader function in the reverse Stackelberg game,” *Proceedings of the 15th IFAC Workshop on Control Applications of Optimization (CAO’12)*, Rimini, Italy, pp. 56–61, Sept. 2012.
- [C110] M. Hajiahmadi, B. De Schutter, and H. Hellendoorn, “Control of traffic networks using the link transmission model and mixed integer linear programming,” *Proceedings of the 1st European Symposium on Quantitative Methods in Transportation Systems (LATSIS 2012)*, Lausanne, Switzerland, 5 pp., Sept. 2012. Paper 62.
- [C111] M. Hajiahmadi, B. De Schutter, and H. Hellendoorn, “Model predictive traffic control: A mixed-logical dynamic approach based on the link transmission model,” *Proceedings of the 13th IFAC Symposium on Control in Transportation Systems (CTS’2012)*, Sofia, Bulgaria, pp. 144–149, Sept. 2012.
- [C112] Y. Wang, B. De Schutter, T.J.J. van den Boom, and B. Ning, “Optimal trajectory planning for trains under operational constraints using mixed integer linear programming,” *Proceedings of the 1st*

*European Symposium on Quantitative Methods in Transportation Systems (LATSIS 2012)*, Lausanne, Switzerland, 4 pp., Sept. 2012. Paper 38.

- [C113] Y. Wang, B. De Schutter, T.J.J. van den Boom, and B. Ning, “Optimal trajectory planning for trains under operational constraints using mixed integer linear programming,” *Proceedings of the 13th IFAC Symposium on Control in Transportation Systems (CTS’2012)*, Sofia, Bulgaria, pp. 13–18, Sept. 2012.
- [C114] Y. Zeinaly, B. De Schutter, and H. Hellendoorn, “A model predictive control approach for the line balancing in baggage handling systems,” *Proceedings of the 13th IFAC Symposium on Control in Transportation Systems (CTS’2012)*, Sofia, Bulgaria, pp. 215–220, Sept. 2012.
- [C115] M.D. Doan, T. Keviczky, and B. De Schutter, “Application of distributed and hierarchical model predictive control in hydro power valleys,” *Proceedings of the 4th IFAC Nonlinear Model Predictive Control Conference*, Noordwijkerhout, The Netherlands, pp. 375–383, Aug. 2012.
- [C116] C. Portilla, F. Valencia, J.D. López, J. Espinosa, A. Núñez, and B. De Schutter, “Non-linear model predictive control based on game theory for traffic control on highways,” *Proceedings of the 4th IFAC Nonlinear Model Predictive Control Conference*, Noordwijkerhout, The Netherlands, pp. 436–441, Aug. 2012.
- [C117] J.M. Maestre, M.D. Doan, D. Muñoz de la Peña, P.J. van Overloop, T. Keviczky, M.A. Ridao, and B. De Schutter, “Benchmarking the operation of a hydro power network through the application of agent-based model predictive controllers,” *Proceedings of the 10th International Conference on Hydroinformatics (HIC 2012)*, Hamburg, Germany, 8 pp., July 2012. Paper HIC2012.0338.
- [C118] D. Adzkiya, B. De Schutter, and A. Abate, “Abstraction and verification of autonomous max-plus-linear systems,” *Proceedings of the 2012 American Control Conference*, Montréal, Canada, pp. 721–726, June 2012.
- [C119] M. Burger, B. De Schutter, and J. Hellendoorn, “Micro-ferry scheduling problem with time windows,” *Proceedings of the 2012 American Control Conference*, Montréal, Canada, pp. 3998–4003, June 2012.
- [C120] Y. Li and B. De Schutter, “A robust feasibility problem for the design of a reference governor,” *Proceedings of the 2012 American Control Conference*, Montréal, Canada, pp. 6745–6750, June 2012.
- [C121] J.M. Maestre, L. Raso, P.J. van Overloop, and B. De Schutter, “Distributed tree-based model predictive control on an open water system,” *Proceedings of the 2012 American Control Conference*, Montréal, Canada, pp. 1985–1990, June 2012.
- [C122] M. Rinaldi, L. Capisani, A. Ferrara, A. Núñez, M. Hajiahmadi, and B. De Schutter, “Distributed identification of the cell transmission traffic model: A case study,” *Proceedings of the 2012 American Control Conference*, Montréal, Canada, pp. 6545–6550, June 2012.
- [C123] M.D. Doan, T. Keviczky, and B. De Schutter, “A distributed optimization-based approach for hierarchical MPC of large-scale systems with coupled dynamics and constraints,” *Proceedings of the 2011 50th IEEE Conference on Decision and Control and European Control Conference (CDC-ECC)*, Orlando, Florida, pp. 5236–5241, Dec. 2011.
- [C124] S.S. Farahani, T. van den Boom, and B. De Schutter, “Model predictive control for stochastic max-min-plus-scaling systems – An approximation approach,” *Proceedings of the 2011 50th IEEE Conference on Decision and Control and European Control Conference (CDC-ECC)*, Orlando, Florida, pp. 391–396, Dec. 2011.
- [C125] G.A.D. Lopes, B. Kersbergen, T. van den Boom, B. De Schutter, and R. Babuška, “On the eigenstructure of a class of max-plus linear systems,” *Proceedings of the 2011 50th IEEE Conference on Decision and Control and European Control Conference (CDC-ECC)*, Orlando, Florida, pp. 1823–1828, Dec. 2011.
- [C126] Z. Cong, B. De Schutter, and R. Babuška, “A new ant colony routing approach with a trade-off between system and user optimum,” *Proceedings of the 14th International IEEE Conference on Intelligent Transportation Systems (ITSC 2011)*, Washington, DC, pp. 1369–1374, Oct. 2011.

- [C127] N. Groot, B. De Schutter, S.K. Zegeye, and H. Hellendoorn, “Model-based traffic and emission control using PWA models – A mixed-logical dynamic approach,” *Proceedings of the 14th International IEEE Conference on Intelligent Transportation Systems (ITSC 2011)*, Washington, DC, pp. 2142–2147, Oct. 2011.
- [C128] Y. Wang, B. De Schutter, B. Ning, N. Groot, and T.J.J. van den Boom, “Optimal trajectory planning for trains using mixed integer linear programming,” *Proceedings of the 14th International IEEE Conference on Intelligent Transportation Systems (ITSC 2011)*, Washington, DC, pp. 1598–1603, Oct. 2011.
- [C129] S.K. Zegeye, B. De Schutter, J. Hellendoorn, and E.A. Breunese, “Variable speed limits for green mobility,” *Proceedings of the 14th International IEEE Conference on Intelligent Transportation Systems (ITSC 2011)*, Washington, DC, pp. 2174–2179, Oct. 2011.
- [C130] Z. Hidayat, R. Babuška, B. De Schutter, and A. Núñez, “Decentralized Kalman filter comparison for distributed-parameter systems: A case study for a 1D heat conduction process,” *Proceedings of the 16th IEEE International Conference on Emerging Technologies and Factory Automation (ETFA’2011)*, Toulouse, France, 8 pp., Sept. 2011.
- [C131] Z. Hidayat, R. Babuška, B. De Schutter, and A. Núñez, “Observers for linear distributed-parameter systems: A survey,” *Proceedings of the 2011 IEEE International Symposium on Robotic and Sensors Environments (ROSE 2011)*, Montreal, Canada, pp. 166–171, Sept. 2011.
- [C132] B. Kersbergen, G.A.D. Lopes, T.J.J. van den Boom, B. De Schutter, and R. Babuška, “Optimal gait switching for legged locomotion,” *Proceedings of the 2011 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS’11)*, San Francisco, California, pp. 2729–2734, Sept. 2011.
- [C133] G. Bajracharya, T. Koltunowicz, R.R. Negenborn, D. Djairam, B. De Schutter, and J.J. Smit, “Optimization of asset management of transformers based on a predictive health model of paper degradation,” *Proceedings of the 17th International Symposium on High Voltage Engineering*, Hannover, Germany, 6 pp., Aug. 2011. Paper G-002.
- [C134] M.D. Doan, T. Keviczky, and B. De Schutter, “A dual decomposition-based optimization method with guaranteed primal feasibility for hierarchical MPC problems,” *Proceedings of the 18th IFAC World Congress*, Milan, Italy, pp. 392–397, Aug.–Sept. 2011.
- [C135] S.S. Farahani, T. van den Boom, and B. De Schutter, “An approximation approach for identification of stochastic max-plus linear systems,” *Proceedings of the 18th IFAC World Congress*, Milan, Italy, pp. 8241–8246, Aug.–Sept. 2011.
- [C136] N. Groot, B. De Schutter, S. Zegeye, and H. Hellendoorn, “Model-based predictive traffic control: A piecewise-affine approach based on METANET,” *Proceedings of the 18th IFAC World Congress*, Milan, Italy, pp. 10709–10714, Aug.–Sept. 2011.
- [C137] H. Hellendoorn, S. Mulder, and B. De Schutter, “Hybrid control of container cranes,” *Proceedings of the 18th IFAC World Congress*, Milan, Italy, pp. 9697–9702, Aug.–Sept. 2011.
- [C138] Zs. Lendek, R. Babuška, and B. De Schutter, “Stability analysis and observer design for string-connected TS systems,” *Proceedings of the 18th IFAC World Congress*, Milan, Italy, pp. 12795–12800, Aug.–Sept. 2011.
- [C139] S. Lin, B. De Schutter, A. Hegyi, J. Hellendoorn, and Y. Xi, “On a spatiotemporally discrete urban traffic model,” *Proceedings of the 18th IFAC World Congress*, Milan, Italy, pp. 10697–10702, Aug.–Sept. 2011.
- [C140] Y. Li and B. De Schutter, “Fixed-profile load scheduling for large-scale irrigation channels,” *Proceedings of the 18th IFAC World Congress*, Milan, Italy, pp. 1570–1576, Aug.–Sept. 2011.
- [C141] P. Mc Namara, R.R. Negenborn, B. De Schutter, and G. Lightbody, “Coordination of a multiple link HVDC system using local communications based distributed model predictive control,” *Proceedings of the 18th IFAC World Congress*, Milan, Italy, pp. 1558–1563, Aug.–Sept. 2011.
- [C142] A. Núñez, D. Sáez, I. Škrjanc, and B. De Schutter, “A new method for hybrid-fuzzy identification,” *Proceedings of the 18th IFAC World Congress*, Milan, Italy, pp. 15013–15018, Aug.–Sept. 2011.

- [C143] S. Roshany-Yamchi, R.R. Negenborn, M. Cychowski, B. De Schutter, J. Connell, and K. Delaney, "Distributed model predictive control and estimation of large-scale multi-rate systems," *Proceedings of the 18th IFAC World Congress*, Milan, Italy, pp. 416–422, Aug.–Sept. 2011.
- [C144] F. Valencia, J.J. Espinosa, B. De Schutter, and K. Staňková, "Feasible-cooperation distributed model predictive control scheme based on game theory," *Proceedings of the 18th IFAC World Congress*, Milan, Italy, pp. 386–391, Aug.–Sept. 2011.
- [C145] J. van Ast, R. Babuška, and B. De Schutter, "Convergence analysis of ant colony learning," *Proceedings of the 18th IFAC World Congress*, Milan, Italy, pp. 14693–14698, Aug.–Sept. 2011.
- [C146] T.J.J. van den Boom, N. Weiss, W. Leune, R.M.P. Goverde, and B. De Schutter, "A permutation-based algorithm to optimally reschedule trains in a railway traffic network," *Proceedings of the 18th IFAC World Congress*, Milan, Italy, pp. 9537–9542, Aug.–Sept. 2011.
- [C147] T. van den Boom and B. De Schutter, "A stabilizing model predictive controller for uncertain max-plus-linear systems and uncertain switching max-plus-linear systems," *Proceedings of the 18th IFAC World Congress*, Milan, Italy, pp. 8663–8668, Aug.–Sept. 2011.
- [C148] S.K. Zegeye, B. De Schutter, J. Hellendoorn, and E.A. Breunese, "Nonlinear MPC for the improvement of dispersion of freeway traffic emissions," *Proceedings of the 18th IFAC World Congress*, Milan, Italy, pp. 10703–10708, Aug.–Sept. 2011.
- [C149] Y. Wang, B. Ning, F. Cao, B. De Schutter, and T.J.J. van den Boom, "A survey on optimal trajectory planning for train operations," *Proceedings of the 2011 IEEE International Conference on Intelligent Rail Transportation (ICIRT 2011)*, Beijing, China, pp. 589–594, July 2011.
- [C150] L. Buşoniu, R. Munos, B. De Schutter, and R. Babuška, "Optimistic planning for sparsely stochastic systems," *Proceedings of the Workshop on Monte-Carlo Tree Search: Theory and Applications (MCTS) at the 21st International Conference on Automated Planning and Scheduling (ICAPS 2011)*, Freiburg, Germany, 2 pp., June 2011.
- [C151] S.K. Zegeye, B. De Schutter, J. Hellendoorn, and E.A. Breunese, "Parameterized MPC to reduce dispersion of road traffic emissions," *Proceedings of the 2011 American Control Conference*, San Francisco, California, pp. 4428–4433, June–July 2011.
- [C152] S.K. Zegeye, B. De Schutter, J. Hellendoorn, and E.A. Breunese, "Reduction of area-wide emissions using an efficient model-based traffic control strategy," *Proceedings of the 2011 IEEE Forum on Integrated and Sustainable Transportation Systems (FISTS 2011)*, Vienna, Austria, pp. 307–312, June–July 2011.
- [C153] L. Buşoniu, D. Ernst, B. De Schutter, and R. Babuška, "Approximate reinforcement learning: An overview," *Proceedings of the 2011 IEEE Symposium on Adaptive Dynamic Programming and Reinforcement Learning (ADPRL 2011)*, Paris, France, pp. 1–8, Apr. 2011.
- [C154] L. Buşoniu, R. Munos, B. De Schutter, and R. Babuška, "Optimistic planning for sparsely stochastic systems," *Proceedings of the 2011 IEEE Symposium on Adaptive Dynamic Programming and Reinforcement Learning (ADPRL 2011)*, Paris, France, pp. 48–55, Apr. 2011.
- [C155] K. Staňková and B. De Schutter, "Stackelberg equilibria for discrete-time dynamic games – Part I: Deterministic games," *Proceedings of the 2011 IEEE International Conference on Networking, Sensing and Control*, Delft, The Netherlands, pp. 249–254, Apr. 2011.
- [C156] K. Staňková and B. De Schutter, "Stackelberg equilibria for discrete-time dynamic games – Part II: Stochastic games with deterministic information structure," *Proceedings of the 2011 IEEE International Conference on Networking, Sensing and Control*, Delft, The Netherlands, pp. 255–260, Apr. 2011.
- [C157] H. van Ekeren, R.R. Negenborn, P.J. van Overloop, and B. De Schutter, "Hybrid model predictive control using time-instant optimization for the Rhine-Meuse Delta," *Proceedings of the 2011 IEEE International Conference on Networking, Sensing and Control*, Delft, The Netherlands, pp. 216–221, Apr. 2011.
- [C158] P.J. van Overloop, R.R. Negenborn, D. Schwanenberg, and B. De Schutter, "Towards integrating water prediction and control technology," *Proceedings of the 2011 IEEE International Conference on Networking, Sensing and Control*, Delft, The Netherlands, pp. 80–85, Apr. 2011.



- [C159] A. Núñez, C.E. Cortés, D. Sáez, M. Gendreau, and B. De Schutter, “Multiobjective model predictive control applied to a dial-a-ride system,” *Proceedings of the 90th Annual Meeting of the Transportation Research Board*, Washington, DC, 19 pp., Jan. 2011. Paper 11-1942.
- [C160] Y. Li and B. De Schutter, “Control of a string of identical pools using non-identical feedback controllers,” *Proceedings of the 49th IEEE Conference on Decision and Control*, Atlanta, Georgia, pp. 120–125, Dec. 2010.
- [C161] T. van den Boom and B. De Schutter, “Model predictive control for randomly switching max-plus-linear systems using a scenario-based algorithm,” *Proceedings of the 49th IEEE Conference on Decision and Control*, Atlanta, Georgia, pp. 2298–2303, Dec. 2010.
- [C162] D. Alves, J. van Ast, Z. Cong, B. De Schutter, and R. Babuška, “Ant colony optimization for traffic dispersion routing,” *Proceedings of the 13th International IEEE Conference on Intelligent Transportation Systems (ITSC 2010)*, Madeira Island, Portugal, pp. 683–688, Sept. 2010.
- [C163] G. Bajracharya, T. Koltunowicz, R.R. Negenborn, D. Djairam, B. De Schutter, and J.J. Smit, “Optimization of transformer loading based on hot-spot temperature using a predictive health model,” *Proceedings of the 2010 International Conference on Condition Monitoring and Diagnosis (CMD 2010)*, Tokyo, Japan, pp. 914–917, Sept. 2010.
- [C164] L.D. Baskar, B. De Schutter, and J. Hellendoorn, “Hierarchical model-based predictive control for intelligent vehicle highway systems: Regional controllers,” *Proceedings of the 13th International IEEE Conference on Intelligent Transportation Systems (ITSC 2010)*, Madeira Island, Portugal, pp. 249–254, Sept. 2010.
- [C165] Z. Hidayat, Zs. Lendek, R. Babuška, and B. De Schutter, “Fuzzy observer for state estimation of the METANET traffic model,” *Proceedings of the 13th International IEEE Conference on Intelligent Transportation Systems (ITSC 2010)*, Madeira Island, Portugal, pp. 19–24, Sept. 2010.
- [C166] S. Lin, B. De Schutter, S.K. Zegeye, H. Hellendoorn, and Y. Xi, “Integrated urban traffic control for the reduction of travel delays and emissions,” *Proceedings of the 13th International IEEE Conference on Intelligent Transportation Systems (ITSC 2010)*, Madeira Island, Portugal, pp. 677–682, Sept. 2010.
- [C167] Y. Li, J. Alende, M. Cantoni, and B. De Schutter, “Decomposition of a fixed-profile load scheduling method for large-scale irrigation channels,” *Proceedings of the 2010 IEEE International Conference on Control Applications*, Yokohama, Japan, pp. 2166–2171, Sept. 2010.
- [C168] Y. Li and B. De Schutter, “Performance analysis of irrigation channels with distributed control,” *Proceedings of the 2010 IEEE International Conference on Control Applications*, Yokohama, Japan, pp. 2148–2153, Sept. 2010.
- [C169] T. Luspay, B. Kulcsár, I. Varga, S.K. Zegeye, B. De Schutter, and M. Verhaegen, “On acceleration of traffic flow,” *Proceedings of the 13th International IEEE Conference on Intelligent Transportation Systems (ITSC 2010)*, Madeira Island, Portugal, pp. 741–746, Sept. 2010.
- [C170] R. Negenborn, B. De Schutter, and P.-J. van Overloop, “Coordination of local controllers in large-scale water systems,” *Proceedings of the 9th International Conference on Hydroinformatics (HIC 2010)*, Tianjin, China, pp. 2178–2185, Sept. 2010.
- [C171] A. Núñez, B. De Schutter, D. Sáez, and C.E. Cortés, “Hierarchical multiobjective model predictive control applied to a dynamic pickup and delivery problem,” *Proceedings of the 13th International IEEE Conference on Intelligent Transportation Systems (ITSC 2010)*, Madeira Island, Portugal, pp. 1553–1558, Sept. 2010.
- [C172] K. Staňková and B. De Schutter, “First steps towards finding a solution of a dynamic investor-bank game,” *Proceedings of the 2010 IEEE International Conference on Control Applications*, Yokohama, Japan, pp. 2065–2070, Sept. 2010.
- [C173] K. Staňková and B. De Schutter, “On freeway traffic density estimation for a jump Markov linear model based on Daganzo’s cell transmission model,” *Proceedings of the 13th International IEEE Conference on Intelligent Transportation Systems (ITSC 2010)*, Madeira Island, Portugal, pp. 13–18, Sept. 2010.

- [C174] A.N. Tarău, B. De Schutter, and J. Hellendoorn, “Predictive control for baggage handling systems using mixed integer linear programming,” *Proceedings of the 5th IFAC International Conference on Management and Control of Production Logistics (MCPL 2010)*, Coimbra, Portugal, pp. 16–21, Sept. 2010.
- [C175] P.J. van Overloop, R.R. Negenborn, S.V. Weijs, W. Malda, M.R. Bruggers, and B. De Schutter, “Linking water and energy objectives in lowland areas through the application of model predictive control,” *Proceedings of the 2010 IEEE International Conference on Control Applications*, Yokohama, Japan, pp. 1887–1891, Sept. 2010.
- [C176] S.K. Zegeye, B. De Schutter, J. Hellendoorn, and E.A. Breunese, “Variable speed limits for area-wide reduction of emissions,” *Proceedings of the 13th International IEEE Conference on Intelligent Transportation Systems (ITSC 2010)*, Madeira Island, Portugal, pp. 507–512, Sept. 2010.
- [C177] S.S. Farahani, T. van den Boom, H. van der Weide, and B. De Schutter, “An approximation approach for model predictive control of stochastic max-plus linear systems,” *Proceedings of the 10th International Workshop on Discrete Event Systems (WODES 2010)*, Berlin, Germany, pp. 376–381, Aug.–Sept. 2010.
- [C178] G.A.D. Lopes, T.J.J. van den Boom, B. De Schutter, and R. Babuška, “Modeling and control of legged locomotion via switching max-plus systems,” *Proceedings of the 10th International Workshop on Discrete Event Systems (WODES 2010)*, Berlin, Germany, pp. 382–387, Aug.–Sept. 2010.
- [C179] M.D. Doan, T. Keviczky, and B. De Schutter, “An improved distributed version of Han’s method for distributed MPC of canal systems,” *Proceedings of the 12th IFAC Symposium on Large Scale Systems: Theory and Applications*, Villeneuve d’Ascq, France, July 2010.
- [C180] S. Leirens, J.M. Giraldo, R.R. Negenborn, and B. De Schutter, “A pattern search method for improving the operation of sewer systems,” *Proceedings of the 12th IFAC Symposium on Large Scale Systems: Theory and Applications*, Villeneuve d’Ascq, France, pp. 591–596, July 2010.
- [C181] J. van Ast, R. Babuška, and B. De Schutter, “Generalized pheromone update for ant colony learning in continuous state spaces,” *Proceedings of the 2010 IEEE Congress on Evolutionary Computation (CEC 2010)*, Barcelona, Spain, pp. 2617–2624, July 2010.
- [C182] L. Buşoniu, D. Ernst, B. De Schutter, and R. Babuška, “Online least-squares policy iteration for reinforcement learning control,” *Proceedings of the 2010 American Control Conference*, Baltimore, Maryland, pp. 486–491, June–July 2010.
- [C183] S. Leirens, C. Zamora, R.R. Negenborn, and B. De Schutter, “Coordination in urban water supply networks using distributed model predictive control,” *Proceedings of the 2010 American Control Conference*, Baltimore, Maryland, pp. 3957–3962, June–July 2010.
- [C184] Zs. Lendek, R. Babuška, and B. De Schutter, “Fuzzy models and observers for freeway traffic state tracking,” *Proceedings of the 2010 American Control Conference*, Baltimore, Maryland, pp. 2278–2283, June–July 2010.
- [C185] S. Lin, B. De Schutter, Y. Xi, and H. Hellendoorn, “Model predictive control for urban traffic networks via MILP,” *Proceedings of the 2010 American Control Conference*, Baltimore, Maryland, pp. 2272–2277, June–July 2010.
- [C186] Y. Li and B. De Schutter, “Offtake feedforward compensator design for an irrigation channel with distributed control,” *Proceedings of the 2010 American Control Conference*, Baltimore, Maryland, pp. 3747–3752, June–July 2010.
- [C187] S.K. Zegeye, B. De Schutter, and J. Hellendoorn, “Model predictive traffic control to reduce vehicular emissions – An LPV-based approach,” *Proceedings of the 2010 American Control Conference*, Baltimore, Maryland, pp. 2284–2289, June–July 2010.
- [C188] S. Lin, B. De Schutter, Y. Xi, and H. Hellendoorn, “An efficient model-based method for coordinated control of urban traffic networks,” *Proceedings of the 2010 IEEE International Conference on Networking, Sensing and Control*, Chicago, Illinois, p. 8-13, Apr. 2010.
- [C189] A.N. Tarău, B. De Schutter, and J. Hellendoorn, “DCV route control in baggage handling systems using a hierarchical control architecture and mixed integer linear programming,” *Proceedings of*

- the 3rd International Conference on Information Systems, Logistics and Supply Chain (ILS 2010)*, Casablanca, Morocco, 12 pp., Apr. 2010.
- [C190] S.K. Zegeye, B. De Schutter, J. Hellendoorn, and E.A. Breunese, “Integrated macroscopic traffic flow and emission model based on METANET and VT-micro,” in *Models and Technologies for Intelligent Transportation Systems* (Proceedings of the International Conference on Models and Technologies for Intelligent Transportation Systems, Rome, Italy, June 2009) (G. Fusco, ed.), Rome, Italy: Aracne Editrice, ISBN 978-88-548-3025-7, pp. 86–89, 2010.
- [C191] G.A.D. Lopes, R. Babuška, B. De Schutter, and A.J.J. van den Boom, “Switching max-plus models for legged locomotion,” *Proceedings of the 2009 IEEE International Conference on Robotics and Biomimetics (ROBIO 2009)*, Guilin, China, pp. 221–226, Dec. 2009.
- [C192] T.J.J. van den Boom and B. De Schutter, “MPC for max-plus-linear systems with an output cost criterion: Steady-state behavior and guaranteed stability,” *Proceedings of the Joint 48th IEEE Conference on Decision and Control and 28th Chinese Control Conference*, Shanghai, China, pp. 2286–2291, Dec. 2009.
- [C193] L.D. Baskar, B. De Schutter, and J. Hellendoorn, “Optimal routing for intelligent vehicle highway systems using a macroscopic traffic flow model,” *Proceedings of the 12th International IEEE Conference on Intelligent Transportation Systems (ITSC 2009)*, St. Louis, Missouri, pp. 576–581, Oct. 2009.
- [C194] S. Lin, B. De Schutter, Y. Xi, and H. Hellendoorn, “Study on fast model predictive controllers for large urban traffic networks,” *Proceedings of the 12th International IEEE Conference on Intelligent Transportation Systems (ITSC 2009)*, St. Louis, Missouri, pp. 691–696, Oct. 2009.
- [C195] R.R. Negenborn, A. Sahin, Z. Lukszo, B. De Schutter, and M. Morari, “A non-iterative cascaded predictive control approach for control of irrigation canals,” *Proceedings of the 2009 IEEE International Conference on Systems, Man, and Cybernetics*, San Antonio, Texas, pp. 3652–3657, Oct. 2009.
- [C196] A.N. Tarău, B. De Schutter, and H. Hellendoorn, “Hierarchical route choice control for baggage handling systems,” *Proceedings of the 12th International IEEE Conference on Intelligent Transportation Systems (ITSC 2009)*, St. Louis, Missouri, pp. 679–684, Oct. 2009.
- [C197] R.T. van Katwijk, B. De Schutter, and J. Hellendoorn, “Multi-agent control of traffic networks: Algorithm and case study,” *Proceedings of the 12th International IEEE Conference on Intelligent Transportation Systems (ITSC 2009)*, St. Louis, Missouri, pp. 316–321, Oct. 2009.
- [C198] L.D. Baskar, B. De Schutter, and H. Hellendoorn, “Optimal routing for intelligent vehicle highway systems using mixed integer linear programming,” *Proceedings of the 12th IFAC Symposium on Transportation Systems*, Redondo Beach, California, pp. 569–575, Sept. 2009.
- [C199] P. Deo, B. De Schutter, and A. Hegyi, “Model predictive control for multi-class traffic flows,” *Proceedings of the 12th IFAC Symposium on Transportation Systems*, Redondo Beach, California, pp. 25–30, Sept. 2009.
- [C200] D. Doan, T. Keviczky, I. Necoara, M. Diehl, and B. De Schutter, “A distributed version of Han’s method for DMPC of dynamically coupled systems with coupled constraints,” *Proceedings of the 1st IFAC Workshop on Estimation and Control of Networked Systems (NecSys 2009)*, Venice, Italy, pp. 240–245, Sept. 2009.
- [C201] S. Lin, B. De Schutter, Y. Xi, and J. Hellendoorn, “A simplified macroscopic urban traffic network model for model-based predictive control,” *Proceedings of the 12th IFAC Symposium on Transportation Systems*, Redondo Beach, California, pp. 286–291, Sept. 2009.
- [C202] A.N. Tarău, B. De Schutter, and J. Hellendoorn, “Decentralized route choice control of automated baggage handling systems,” *Proceedings of the 12th IFAC Symposium on Transportation Systems*, Redondo Beach, California, pp. 70–75, Sept. 2009.
- [C203] A.N. Tarău, B. De Schutter, and J. Hellendoorn, “Predictive route choice control of destination coded vehicles with mixed integer linear programming optimization,” *Proceedings of the 12th IFAC Symposium on Transportation Systems*, Redondo Beach, California, pp. 64–69, Sept. 2009.

- [C204] M. van den Berg, B. De Schutter, H. Hellendoorn, and A. Hegyi, “Control of day-to-day route choice in traffic networks with overlapping routes,” *Proceedings of the 12th IFAC Symposium on Transportation Systems*, Redondo Beach, California, pp. 556–561, Sept. 2009.
- [C205] R.T. van Katwijk and B. De Schutter, “Multi-agent control of urban networks – Algorithm and case study,” *Proceedings of the 16th ITS World Congress*, Stockholm, Sweden, Sept. 2009. Paper 3017.
- [C206] S.K. Zegeye, B. De Schutter, H. Hellendoorn, and E. Breunese, “Model-based traffic control for balanced reduction of fuel consumption, emissions, and travel time,” *Proceedings of the 12th IFAC Symposium on Transportation Systems*, Redondo Beach, California, pp. 149–154, Sept. 2009.
- [C207] M. Arnold, R.R. Negenborn, G. Andersson, and B. De Schutter, “Multi-area predictive control for combined electricity and natural gas systems,” *Proceedings of the European Control Conference 2009*, Budapest, Hungary, pp. 1408–1413, Aug. 2009.
- [C208] G. Bajracharya, T. Koltunowicz, R.R. Negenborn, Z. Papp, D. Djairam, B. De Schutter, and J.J. Smit, “Optimization of condition-based asset management using a predictive health model,” *Proceedings of the 16th International Symposium on High Voltage Engineering*, Cape Town, South Africa, pp. 1529–1534, Aug. 2009.
- [C209] R.R. Negenborn, P.-J. van Overloop, and B. De Schutter, “Coordinated distributed model predictive reach control of irrigation canals,” *Proceedings of the European Control Conference 2009*, Budapest, Hungary, pp. 1420–1425, Aug. 2009.
- [C210] A.N. Tarău, B. De Schutter, and H. Hellendoorn, “Receding horizon approaches for route choice control of automated baggage handling systems,” *Proceedings of the European Control Conference 2009*, Budapest, Hungary, pp. 2978–2983, Aug. 2009.
- [C211] M. van den Berg, B. De Schutter, A. Hegyi, and H. Hellendoorn, “Day-to-day route choice control in traffic networks with time-varying demand profiles,” *Proceedings of the European Control Conference 2009*, Budapest, Hungary, pp. 1776–1781, Aug. 2009.
- [C212] M. Arnold, R.R. Negenborn, G. Andersson, and B. De Schutter, “Model-based predictive control applied to multi-carrier energy systems,” *Proceedings of the 2009 IEEE PES General Meeting*, Calgary, Canada, July 2009. Paper 09GM1452.
- [C213] A.N. Tarău, B. De Schutter, and H. Hellendoorn, “Distributed route choice control in DCV-based baggage handling systems,” *Proceedings of the 18th IEEE International Conference on Control Applications*, Saint Petersburg, Russia, pp. 818–824, July 2009.
- [C214] G. Bajracharya, T. Koltunowicz, R.R. Negenborn, Z. Papp, D. Djairam, B. De Schutter, and J.J. Smit, “Optimization of maintenance for power system equipment using a predictive health model,” *Proceedings of the 2009 IEEE Bucharest Power Tech Conference*, Bucharest, Romania, June–July 2009. Paper 563.
- [C215] J. Haddad, D. Mahalel, B. De Schutter, I. Ioslovich, and P.-O. Gutman, “Optimal steady-state traffic control for isolated intersections,” *Proceedings of the 6th IFAC Symposium on Robust Control Design (ROCOND’09)*, Haifa, Israel, pp. 96–101, June 2009.
- [C216] J. Haddad, B. De Schutter, D. Mahalel, and P.-O. Gutman, “Steady-state and N-stages control for isolated controlled intersections,” *Proceedings of the 2009 American Control Conference*, St. Louis, Missouri, pp. 2843–2848, June 2009.
- [C217] Ö.A. Tekin, R. Babuška, T. Tomiyama, and B. De Schutter, “Toward a flexible control design framework to automatically generate control code for mechatronic systems,” *Proceedings of the 2009 American Control Conference*, St. Louis, Missouri, pp. 4933–4938, June 2009.
- [C218] J. van Ast, R. Babuška, and B. De Schutter, “Fuzzy ant colony optimization for optimal control,” *Proceedings of the 2009 American Control Conference*, St. Louis, Missouri, pp. 1003–1008, June 2009.
- [C219] S.K. Zegeye, B. De Schutter, H. Hellendoorn, and E. Breunese, “Reduction of travel times and traffic emissions using model predictive control,” *Proceedings of the 2009 American Control Conference*, St. Louis, Missouri, pp. 5392–5397, June 2009.

- [C220] S.K. Zegeye, B. De Schutter, J. Hellendoorn, and E.A. Breunese, “Model-based traffic control for the reduction of fuel consumption, emissions, and travel time,” *Proceedings of mobil.TUM 2009 – International Scientific Conference on Mobility and Transport*, Munich, Germany, 11 pp., May 2009.
- [C221] L. Buşoniu, D. Ernst, B. De Schutter, and R. Babuška, “Policy search with cross-entropy optimization of basis functions,” *Proceedings of the 2009 IEEE Symposium on Adaptive Dynamic Programming and Reinforcement Learning (ADPRL 2009)*, Nashville, Tennessee, pp. 153–160, Mar.–Apr. 2009.
- [C222] M. Houwing, R.R. Negenborn, M.D. Ilić, and B. De Schutter, “Model predictive control of fuel cell micro cogeneration systems,” *Proceedings of the 2009 IEEE International Conference on Networking, Sensing and Control*, Okayama, Japan, pp. 708–713, Mar. 2009.
- [C223] R.R. Negenborn, M. Houwing, B. De Schutter, and J. Hellendoorn, “Model predictive control for residential energy resources using a mixed-logical dynamic model,” *Proceedings of the 2009 IEEE International Conference on Networking, Sensing and Control*, Okayama, Japan, pp. 702–707, Mar. 2009.
- [C224] A. Tarău, B. De Schutter, and H. Hellendoorn, “Centralized versus decentralized route choice control in DCV-based baggage handling systems,” *Proceedings of the 2009 IEEE International Conference on Networking, Sensing and Control*, Okayama, Japan, pp. 334–339, Mar. 2009.
- [C225] L.D. Baskar, B. De Schutter, J. Hellendoorn, and A. Tarău, “Traffic management for intelligent vehicle highway systems using model-based predictive control,” *Proceedings of the 88th Annual Meeting of the Transportation Research Board*, Washington, DC, 15 pp., Jan. 2009. Paper 09-2107.
- [C226] A.N. Tarău, B. De Schutter, and J. Hellendoorn, “Route choice control of automated baggage handling systems,” *Proceedings of the 88th Annual Meeting of the Transportation Research Board*, Washington, DC, 14 pp., Jan. 2009. Paper 09-0432.
- [C227] M. Arnold, R.R. Negenborn, G. Andersson, and B. De Schutter, “Distributed control applied to combined electricity and natural gas infrastructures,” *Proceedings of the International Conference on Infrastructure Systems 2008: Building Networks for a Brighter Future*, Rotterdam, The Netherlands, 6 pp., Nov. 2008. Paper 172.
- [C228] R.R. Negenborn and B. De Schutter, “A distributed model predictive control approach for the control of irrigation canals,” *Proceedings of the International Conference on Infrastructure Systems 2008: Building Networks for a Brighter Future*, Rotterdam, The Netherlands, 6 pp., Nov. 2008. Paper 152.
- [C229] R.T. van Katwijk, B. De Schutter, and J. Hellendoorn, “Multi-agent coordination of traffic control instruments,” *Proceedings of the International Conference on Infrastructure Systems 2008: Building Networks for a Brighter Future*, Rotterdam, The Netherlands, 6 pp., Nov. 2008. Paper 141.
- [C230] L.D. Baskar, B. De Schutter, and H. Hellendoorn, “Dynamic speed limits and on-ramp metering for IVHS using model predictive control,” *Proceedings of the 11th International IEEE Conference on Intelligent Transportation Systems (ITSC 2008)*, Beijing, China, pp. 821–826, Oct. 2008.
- [C231] L.D. Baskar, B. De Schutter, and H. Hellendoorn, “Model predictive control for intelligent speed adaptation in intelligent vehicle highway systems,” *Proceedings of the 17th IEEE International Conference on Control Applications*, San Antonio, Texas, pp. 468–473, Sept. 2008.
- [C232] R.R. Negenborn, M. Houwing, B. De Schutter, and H. Hellendoorn, “Adaptive prediction model accuracy in the control of residential energy resources,” *Proceedings of the 17th IEEE International Conference on Control Applications*, San Antonio, Texas, pp. 311–316, Sept. 2008.
- [C233] A. Tarău, B. De Schutter, and H. Hellendoorn, “Travel time control of destination coded vehicles in baggage handling systems,” *Proceedings of the 17th IEEE International Conference on Control Applications*, San Antonio, Texas, pp. 293–298, Sept. 2008.
- [C234] M. van den Berg, B. De Schutter, J. Hellendoorn, and A. Hegyi, “Influencing route choice in traffic networks: A model predictive control approach based on mixed-integer linear programming,” *Proceedings of the 17th IEEE International Conference on Control Applications*, San Antonio, Texas, pp. 299–304, Sept. 2008.

- [C235] R.T. van Katwijk, B. De Schutter, and J. Hellendoorn, "Movement-based look-ahead traffic-adaptive intersection control," *Proceedings of the UKACC International Conference on Control 2008*, London, UK, 6 pp., Sept. 2008. Paper Th09.01.
- [C236] L. Buşoniu, D. Ernst, B. De Schutter, and R. Babuška, "Fuzzy partition optimization for approximate fuzzy Q-iteration," *Proceedings of the 17th IFAC World Congress*, Seoul, Korea, pp. 5629–5634, July 2008.
- [C237] M. Burger, A. Hegyi, and B. De Schutter, "Model-based speed limit control with different traffic state measurements," *Proceedings of the 17th IFAC World Congress*, Seoul, Korea, pp. 14072–14077, July 2008.
- [C238] D. Corona, J. Buisson, and B. De Schutter, "A Hamiltonian approach for the optimal control of the switching signal for a DC-DC converter," *Proceedings of the 17th IFAC World Congress*, Seoul, Korea, pp. 7654–7659, July 2008.
- [C239] Zs. Lendek, K.M. van Schagen, R. Babuška, A. Veersma, and B. De Schutter, "Cascaded parameter estimation for a water treatment plant using particle filters," *Proceedings of the 17th IFAC World Congress*, Seoul, Korea, pp. 10857–10862, July 2008.
- [C240] A.N. Tarău, B. De Schutter, and J. Hellendoorn, "Throughput optimization of automated flats sorting machines," *Proceedings of the 17th IFAC World Congress*, Seoul, Korea, pp. 51–56, July 2008.
- [C241] J. van Ast, R. Babuška, and B. De Schutter, "Particle swarms in optimization and control," *Proceedings of the 17th IFAC World Congress*, Seoul, Korea, pp. 5131–5136, July 2008.
- [C242] M. van den Berg, A. Hegyi, B. De Schutter, and J. Hellendoorn, "Influencing long-term route choice by traffic control measures – A model study," *Proceedings of the 17th IFAC World Congress*, Seoul, Korea, pp. 13052–13057, July 2008.
- [C243] T. van den Boom and B. De Schutter, "Model predictive control for switching max-plus-linear systems with random and deterministic switching," *Proceedings of the 17th IFAC World Congress*, Seoul, Korea, pp. 7660–7665, July 2008.
- [C244] L.D. Baskar, B. De Schutter, and H. Hellendoorn, "Model-based predictive traffic control for intelligent vehicles: Dynamic speed limits and dynamic lane allocation," *Proceedings of the 2008 IEEE Intelligent Vehicles Symposium (IV'08)*, Eindhoven, The Netherlands, pp. 174–179, June 2008.
- [C245] L. Buşoniu, D. Ernst, B. De Schutter, and R. Babuška, "Consistency of fuzzy model-based reinforcement learning," *Proceedings of the 2008 IEEE International Conference on Fuzzy Systems (FUZZ-IEEE 2008)*, Hong Kong, pp. 518–524, June 2008.
- [C246] M. Houwing, R.R. Negenborn, and B. De Schutter, "Economic advantages of applying model predictive control to distributed energy resources: The case of micro-CHP systems," *Proceedings of the 16th Mediterranean Conference on Control and Automation (MED'08)*, Ajaccio, France, pp. 1550–1555, June 2008.
- [C247] Zs. Lendek, R. Babuška, and B. De Schutter, "Stability analysis and observer design for decentralized TS fuzzy systems," *Proceedings of the 2008 IEEE International Conference on Fuzzy Systems (FUZZ-IEEE 2008)*, Hong Kong, pp. 631–636, June 2008.
- [C248] J. van Ast, R. Babuška, and B. De Schutter, "A general modeling framework for swarms," *Proceedings of the 2008 IEEE Congress on Evolutionary Computation (CEC 2008)*, Hong Kong, pp. 3796–3801, June 2008.
- [C249] J. van Ast, R. Babuška, and B. De Schutter, "Ant colony optimization for optimal control," *Proceedings of the 2008 IEEE Congress on Evolutionary Computation (CEC 2008)*, Hong Kong, pp. 2040–2046, June 2008.
- [C250] B. De Schutter and T. van den Boom, "Max-plus algebra and max-plus linear discrete event systems: An introduction," *Proceedings of the 9th International Workshop on Discrete Event Systems (WODES'08)*, Göteborg, Sweden, pp. 36–42, May 2008.
- [C251] T. van den Boom and B. De Schutter, "Randomly switching max-plus linear systems and equivalent classes of discrete event systems," *Proceedings of the 9th International Workshop on Discrete Event Systems (WODES'08)*, Göteborg, Sweden, pp. 242–247, May 2008.

- [C252] M. Burger, A. Hegyi, and B. De Schutter, "Suitability of different mean speeds for model-based traffic control," *Proceedings of the 87th Annual Meeting of the Transportation Research Board*, Washington, DC, 18 pp., Jan. 2008. Paper 08-2010.
- [C253] D. Corona and B. De Schutter, "Comparison of a linear and a hybrid adaptive cruise controller for a SMART," *Proceedings of the 46th IEEE Conference on Decision and Control*, New Orleans, Louisiana, pp. 4779–4784, Dec. 2007.
- [C254] Zs. Lendek, R. Babuška, and B. De Schutter, "TS fuzzy controllers for cascaded systems," *Proceedings of the 3rd IFAC Workshop on Advanced Fuzzy and Neural Control (AFNC 07)*, Valenciennes, France, pp. 43–48, Oct. 2007. Paper MO4-2.
- [C255] L. Buşoniu, D. Ernst, B. De Schutter, and R. Babuška, "Fuzzy approximation for convergent model-based reinforcement learning," *Proceedings of the 2007 IEEE International Conference on Fuzzy Systems (FUZZ-IEEE 2007)*, London, UK, pp. 968–973, July 2007.
- [C256] D. Corona, J. Buisson, B. De Schutter, and A. Giua, "Stabilization of switched affine systems: An application to the buck-boost converter," *Proceedings of the 2007 American Control Conference*, New York, New York, pp. 6037–6042, July 2007.
- [C257] A. Hegyi, M. Burger, B. De Schutter, J. Hellendoorn, and T.J.J. van den Boom, "Towards a practical application of model predictive control to suppress shock waves on freeways," *Proceedings of the European Control Conference 2007 (ECC'07)*, Kos, Greece, pp. 1764–1771, July 2007.
- [C258] M. Houwing, R.R. Negenborn, P.W. Heijnen, B. De Schutter, and H. Hellendoorn, "Least-cost model predictive control of residential energy resources when applying  $\mu$ CHP," *Proceedings of Power Tech 2007*, Lausanne, Switzerland, 6 pp., July 2007. Paper 291.
- [C259] G. Hug-Glanzmann, R. Negenborn, G. Andersson, B. De Schutter, and H. Hellendoorn, "Multi-area control of overlapping areas in power systems for FACTS control," *Proceedings of Power Tech 2007*, Lausanne, Switzerland, 6 pp., July 2007. Paper 277.
- [C260] Zs. Lendek, R. Babuška, and B. De Schutter, "Distributed Kalman filtering for multiagent systems," *Proceedings of the European Control Conference 2007 (ECC'07)*, Kos, Greece, pp. 2193–2200, July 2007.
- [C261] Zs. Lendek, R. Babuška, and B. De Schutter, "Stability of cascaded Takagi-Sugeno fuzzy systems," *Proceedings of the 2007 IEEE International Conference on Fuzzy Systems (FUZZ-IEEE 2007)*, London, UK, pp. 505–510, July 2007.
- [C262] R.R. Negenborn, A.G. Beccuti, T. Demiray, S. Leirens, G. Damm, B. De Schutter, and M. Morari, "Supervisory hybrid model predictive control for voltage stability of power networks," *Proceedings of the 2007 American Control Conference*, New York, New York, pp. 5444–5449, July 2007.
- [C263] T. van den Boom and B. De Schutter, "Stabilizing model predictive controllers for randomly switching max-plus-linear systems," *Proceedings of the European Control Conference 2007 (ECC'07)*, Kos, Greece, pp. 4952–4959, July 2007.
- [C264] L.D. Baskar, B. De Schutter, and H. Hellendoorn, "Hierarchical traffic control and management with intelligent vehicles," *Proceedings of the 2007 IEEE Intelligent Vehicles Symposium (IV'07)*, Istanbul, Turkey, pp. 834–839, June 2007.
- [C265] R.T. van Katwijk, B. De Schutter, and J. Hellendoorn, "Look-ahead traffic-adaptive signal control," *Proceedings of the 6th European Congress on Intelligent Transport Systems and Services (ITS'07)*, Aalborg, Denmark, 12 pp., June 2007. Paper 2417.
- [C266] R. van Tongeren, O. Gietelink, B. De Schutter, and M. Verhaegen, "Traffic modelling validation of advanced driver assistance systems," *Proceedings of the 2007 IEEE Intelligent Vehicles Symposium (IV'07)*, Istanbul, Turkey, pp. 1246–1251, June 2007.
- [C267] L. Buşoniu, D. Ernst, B. De Schutter, and R. Babuška, "Continuous-state reinforcement learning with fuzzy approximation," *Proceedings of the 7th Annual Symposium on Adaptive and Learning Agents and Multi-Agent Systems (ALAMAS 2007)* (K. Tuyls, S. de Jong, M. Ponsen, and K. Verbeeck, eds.), Maastricht, The Netherlands, pp. 21–35, Apr. 2007.

- [C268] R.R. Negenborn, B. De Schutter, and J. Hellendoorn, “Efficient implementation of serial multi-agent model predictive control by parallelization,” *Proceedings of the 2007 IEEE International Conference on Networking, Sensing and Control (ICNSC '07)*, London, UK, pp. 175–180, Apr. 2007.
- [C269] T.J.J. van den Boom and B. De Schutter, “On a model predictive control algorithm for dynamic railway network management,” *Proceedings of the 2nd International Seminar on Railway Operations Modelling and Analysis (RailHannover2007)* (I.A. Hansen, A. Radtke, J. Pachl, and E. Wendler, eds.), Hannover, Germany, 15 pp., Mar. 2007.
- [C270] L. Buşoniu, R. Babuška, and B. De Schutter, “Multi-agent reinforcement learning: A survey,” *Proceedings of the 9th International Conference on Control, Automation, Robotics and Vision (ICARCV 2006)*, Singapore, pp. 527–532, Dec. 2006.
- [C271] L. Buşoniu, B. De Schutter, and R. Babuška, “Decentralized reinforcement learning control of a robotic manipulator,” *Proceedings of the 9th International Conference on Control, Automation, Robotics and Vision (ICARCV 2006)*, Singapore, pp. 1347–1352, Dec. 2006.
- [C272] D. Corona, I. Necoara, B. De Schutter, and T. van den Boom, “Robust hybrid MPC applied to the design of an adaptive cruise controller for a road vehicle,” *Proceedings of the 45th IEEE Conference on Decision and Control*, San Diego, California, pp. 1721–1726, Dec. 2006.
- [C273] B. De Schutter, J. Schepers, and I. Van Mechelen, “On algorithms for a binary-real  $(\max, \times)$  matrix approximation problem,” *Proceedings of the 45th IEEE Conference on Decision and Control*, San Diego, California, pp. 5168–5173, Dec. 2006.
- [C274] I. Necoara, E.C. Kerrigan, B. De Schutter, and T.J.J. van den Boom, “Worst-case optimal control of uncertain max-plus-linear systems,” *Proceedings of the 45th IEEE Conference on Decision and Control*, San Diego, California, pp. 6055–6060, Dec. 2006.
- [C275] D. Corona, M. Lazar, B. De Schutter, and M. Heemels, “A hybrid MPC approach to the design of a Smart adaptive cruise controller,” *Proceedings of the 2006 IEEE International Conference on Control Applications (CCA 2006)*, Munich, Germany, pp. 231–236, Oct. 2006.
- [C276] T. Bellemans, B. De Schutter, G. Wets, and B. De Moor, “Model predictive control for ramp metering combined with extended Kalman filter-based traffic state estimation,” *Proceedings of the 2006 IEEE Intelligent Transportation Systems Conference (ITSC 2006)*, Toronto, Canada, pp. 406–411, Sept. 2006.
- [C277] A. Hegyi, D. Girimonte, R. Babuška, and B. De Schutter, “A comparison of filter configurations for freeway traffic state estimation,” *Proceedings of the 2006 IEEE Intelligent Transportation Systems Conference (ITSC 2006)*, Toronto, Canada, pp. 1029–1034, Sept. 2006.
- [C278] R.R. Negenborn, B. De Schutter, and H. Hellendoorn, “Multi-agent model predictive control for transportation networks with continuous and discrete elements,” *Proceedings of the 11th IFAC Symposium on Control in Transportation Systems*, Delft, The Netherlands, pp. 609–614, Aug. 2006.
- [C279] M. van den Berg, B. De Schutter, and H. Hellendoorn, “Effects of on-ramp and off-ramp metering on queue forming in urban traffic networks,” *Proceedings of the 11th IFAC Symposium on Control in Transportation Systems*, Delft, The Netherlands, pp. 130–135, Aug. 2006.
- [C280] T.J.J. van den Boom and B. De Schutter, “Dynamic railway network management using switching max-plus-linear models,” *Proceedings of the 11th IFAC Symposium on Control in Transportation Systems*, Delft, The Netherlands, pp. 343–348, Aug. 2006.
- [C281] R.T. van Katwijk, B. De Schutter, and J. Hellendoorn, “Traffic adaptive control of a single intersection: A taxonomy of approaches,” *Proceedings of the 11th IFAC Symposium on Control in Transportation Systems*, Delft, The Netherlands, pp. 227–232, Aug. 2006.
- [C282] G. Jiroveanu, R.K. Boel, and B. De Schutter, “Fault diagnosis for time Petri nets,” *Proceedings of the 8th International Workshop on Discrete Event Systems (WODES'06)*, Ann Arbor, Michigan, pp. 313–318, July 2006.
- [C283] I. Necoara, B. De Schutter, T. van den Boom, and H. Hellendoorn, “Min-max model predictive control for uncertain max-min-plus-scaling systems,” *Proceedings of the 8th International Workshop on Discrete Event Systems (WODES'06)*, Ann Arbor, Michigan, pp. 439–444, July 2006.



- [C284] T.J.J. van den Boom and B. De Schutter, “MPC of implicit switching max-plus-linear discrete event systems – Timing aspects,” *Proceedings of the 8th International Workshop on Discrete Event Systems (WODES’06)*, Ann Arbor, Michigan, pp. 457–462, July 2006.
- [C285] D. Corona and B. De Schutter, “Adaptive cruise controller design: A comparative assessment for PWA systems,” *Proceedings of the 2nd IFAC Conference on Analysis and Design of Hybrid Systems (ADHS’06)*, Alghero, Italy, pp. 253–258, June 2006.
- [C286] O. Gietelink, B. De Schutter, and M. Verhaegen, “Adaptive importance sampling for probabilistic validation of advanced driver assistance systems,” *Proceedings of the 2006 American Control Conference*, Minneapolis, Minnesota, pp. 4002–4007, June 2006.
- [C287] G. Jiroveanu, B. De Schutter, and R.K. Boel, “On-line diagnosis for time Petri nets,” *Proceedings of the 17th International Workshop on Principles of Diagnosis (DX-06)*, Burgos, Spain, 8 pp., June 2006.
- [C288] I. Necoara, B. De Schutter, T.J.J. van den Boom, and J. Hellendoorn, “Stable receding horizon control for max-plus-linear systems,” *Proceedings of the 2006 American Control Conference*, Minneapolis, Minnesota, pp. 4055–4060, June 2006.
- [C289] I. Necoara, T.J.J. van den Boom, B. De Schutter, and J. Hellendoorn, “Stabilization of max-plus-linear systems using receding horizon control – The unconstrained case,” *Proceedings of the 2nd IFAC Conference on Analysis and Design of Hybrid Systems (ADHS’06)*, Alghero, Italy, pp. 148–153, June 2006.
- [C290] R.R. Negenborn, B. De Schutter, and H. Hellendoorn, “Multi-agent model predictive control for transportation networks: Serial versus parallel schemes,” *Proceedings of the 12th IFAC Symposium on Information Control Problems in Manufacturing (INCOM’2006)*, Saint-Etienne, France, pp. 339–344, May 2006.
- [C291] R.R. Negenborn, B. De Schutter, and H. Hellendoorn, “Multi-agent model predictive control of transportation networks,” *Proceedings of the 2006 IEEE International Conference on Networking, Sensing and Control (ICNSC 2006)*, Ft. Lauderdale, Florida, pp. 296–301, Apr. 2006.
- [C292] Z. Lukszo, M.P.C. Weijnen, R.R. Negenborn, B. De Schutter, and M. Ilić, “Challenges for process system engineering in infrastructure operation and control,” in *16th European Symposium on Computer Aided Process Engineering and 9th International Symposium on Process Systems Engineering (Garmisch-Partenkirchen, Germany, July 2006)* (W. Marquardt and C. Pantelides, eds.), vol. 21 of *Computer-Aided Chemical Engineering*, Amsterdam, The Netherlands: Elsevier, ISBN 978-0-444-52969-5, pp. 95–100, 2006.
- [C293] I. Necoara, B. De Schutter, T.J.J. van den Boom, and J. Hellendoorn, “Robustly stabilizing MPC for perturbed PWL systems,” *Proceedings of the 44th IEEE Conference on Decision and Control, and the European Control Conference 2005 (CDC-ECC’05)*, Seville, Spain, pp. 3759–3764, Dec. 2005.
- [C294] T.J.J. van den Boom, B. De Schutter, and I. Necoara, “On MPC for max-plus-linear systems: Analytic solution and stability,” *Proceedings of the 44th IEEE Conference on Decision and Control, and the European Control Conference 2005 (CDC-ECC’05)*, Seville, Spain, pp. 7816–7821, Dec. 2005.
- [C295] M. van den Berg, B. De Schutter, and J. Hellendoorn, “Information providing as a control measure in an integrated traffic control approach,” *Proceedings of the 8th International IEEE Conference on Intelligent Transportation Systems (ITSC ’05)*, Vienna, Austria, pp. 91–96, Sept. 2005.
- [C296] I. Necoara, B. De Schutter, and T.J.J. van den Boom, “Model predictive control for perturbed piecewise affine systems,” *Proceedings of the 5th EUROMECH Nonlinear Dynamics Conference (ENOC-2005)*, Eindhoven, The Netherlands, pp. 231–240, Aug. 2005.
- [C297] O. Gietelink, B. De Schutter, and M. Verhaegen, “Probabilistic validation of advanced driver assistance systems,” *Proceedings of the 16th IFAC World Congress*, Prague, Czech Republic, pp. 97–102, July 2005.
- [C298] A. Hegyi, B. De Schutter, and J. Hellendoorn, “Optimal traffic control in freeway networks with bottlenecks,” *Proceedings of the 16th IFAC World Congress*, Prague, Czech Republic, pp. 96–101, July 2005.

- [C299] I. Necoara, B. De Schutter, W.P.M.H. Heemels, S. Weiland, M. Lazar, and T.J.J. van den Boom, “Control of PWA systems using a stable receding horizon method,” *Proceedings of the 16th IFAC World Congress*, Prague, Czech Republic, pp. 123–128, July 2005.
- [C300] R.R. Negenborn, B. De Schutter, M.A. Wiering, and H. Hellendoorn, “Learning-based model predictive control for Markov decision processes,” *Proceedings of the 16th IFAC World Congress*, Prague, Czech Republic, pp. 354–359, July 2005.
- [C301] T.J.J. van den Boom and B. De Schutter, “MPC for max-plus-linear systems with guaranteed stability,” *Proceedings of the 16th IFAC World Congress*, Prague, Czech Republic, pp. 1–6, July 2005.
- [C302] O.J. Gietelink, B. De Schutter, and M. Verhaegen, “A probabilistic approach for validation of advanced driver assistance systems,” *Proceedings of the 84th Annual Meeting of the Transportation Research Board*, Washington, DC, 24 pp., Jan. 2005. Paper 05-1524.
- [C303] A. Hegyi, B. De Schutter, and J. Hellendoorn, “Optimal control of freeway networks with bottlenecks and static demands,” *Proceedings of the 84th Annual Meeting of the Transportation Research Board*, Washington, DC, 20 pp., Jan. 2005. Paper 05-0799.
- [C304] M. van den Berg, T. Bellemans, B. De Schutter, B. De Moor, and J. Hellendoorn, “Control of traffic with anticipative ramp metering,” *Proceedings of the 84th Annual Meeting of the Transportation Research Board*, Washington, DC, 17 pp., Jan. 2005. Paper 05-0252.
- [C305] R.T. van Katwijk, P. van Koningsbruggen, B. De Schutter, and J. Hellendoorn, “A test bed for multi-agent control systems in road traffic management,” *Proceedings of the 84th Annual Meeting of the Transportation Research Board*, Washington, DC, 22 pp., Jan. 2005. Paper 05-0774.
- [C306] I. Necoara, B. De Schutter, T.J.J. van den Boom, and J. Hellendoorn, “Model predictive control for perturbed continuous piecewise affine systems with bounded disturbances,” *Proceedings of the 43rd IEEE Conference on Decision and Control*, Paradise Island, The Bahamas, pp. 1848–1853, Dec. 2004.
- [C307] A. Karimi, A. Hegyi, B. De Schutter, J. Hellendoorn, and F. Middelham, “Integrated model predictive control of dynamic route guidance information systems and ramp metering,” *Proceedings of the 7th International IEEE Conference on Intelligent Transportation Systems (ITSC 2004)*, Washington, DC, pp. 491–496, Oct. 2004.
- [C308] M. van den Berg, T. Bellemans, B. De Schutter, B. De Moor, and J. Hellendoorn, “Anticipative ramp metering control using dynamic traffic assignment,” *Proceedings of the 7th International IEEE Conference on Intelligent Transportation Systems (ITSC 2004)*, Washington, DC, pp. 503–508, Oct. 2004.
- [C309] T.J.J. van den Boom and B. De Schutter, “Modelling and control of discrete event systems using switching max-plus-linear systems,” *Proceedings of the 7th International Workshop on Discrete Event Systems (WODES’04)*, Reims, France, pp. 115–120, Sept. 2004.
- [C310] O. Gietelink, J. Ploeg, B. De Schutter, and M. Verhaegen, “Testing advanced driver assistance systems for fault management with the VEHIL test facility,” *Proceedings of the 7th International Symposium on Advanced Vehicle Control (AVEC’04)*, Arnhem, The Netherlands, pp. 579–584, Aug. 2004.
- [C311] T. Bellemans, B. De Schutter, and B. De Moor, “Anticipative ramp metering control for freeway traffic networks,” *Proceedings of the 16th International Symposium on Mathematical Theory of Networks and Systems (MTNS 2004)*, Leuven, Belgium, 12 pp., July 2004. Paper 320.
- [C312] B. De Schutter and T.J.J. van den Boom, “Model predictive control for discrete-event and hybrid systems – Part I: Discrete-event systems,” *Proceedings of the 16th International Symposium on Mathematical Theory of Networks and Systems (MTNS 2004)*, Leuven, Belgium, 10 pp., July 2004. Paper 312.
- [C313] B. De Schutter and T.J.J. van den Boom, “Model predictive control for discrete-event and hybrid systems – Part II: Hybrid systems,” *Proceedings of the 16th International Symposium on Mathematical Theory of Networks and Systems (MTNS 2004)*, Leuven, Belgium, 10 pp., July 2004. Paper 313.

- [C314] A. Karimi, A. Hegyi, B. De Schutter, H. Hellendoorn, and F. Middelham, "Integration of dynamic route guidance and freeway ramp metering using model predictive control," *Proceedings of the 2004 American Control Conference*, Boston, Massachusetts, pp. 5533–5538, June–July 2004.
- [C315] I. Necoara, B. De Schutter, and H. Hellendoorn, "On structural properties of Helbing's gas-kinetic traffic flow model," *Proceedings of the 2004 American Control Conference*, Boston, Massachusetts, pp. 5508–5513, June–July 2004.
- [C316] T. van den Boom and B. De Schutter, "Modeling and control of railway networks," *Proceedings of the 2004 American Control Conference*, Boston, Massachusetts, pp. 5728–5733, June–July 2004.
- [C317] O. Gietelink, J. Ploeg, B. De Schutter, and M. Verhaegen, "VEHIL: A test facility for validation of fault management systems for advanced driver assistance systems," *Proceedings of the 1st IFAC Symposium on Advances in Automotive Control*, Salerno, Italy, pp. 410–415, Apr. 2004.
- [C318] I. Necoara, B. De Schutter, and J. Hellendoorn, "Structural properties of Helbing's traffic flow model," *Proceedings of the 83rd Annual Meeting of the Transportation Research Board*, Washington, DC, 22 pp., Jan. 2004. Paper 04-2263.
- [C319] M. van den Berg, B. De Schutter, A. Hegyi, and J. Hellendoorn, "Model predictive control for mixed urban and freeway networks," *Proceedings of the 83rd Annual Meeting of the Transportation Research Board*, Washington, DC, 19 pp., Jan. 2004. Paper 04-3327.
- [C320] A. Hegyi, B. De Schutter, and J. Hellendoorn, "Optimal coordination of variable speed limits to suppress shock waves," *Proceedings of the 42nd IEEE Conference on Decision and Control*, Maui, Hawaii, pp. 2768–2773, Dec. 2003.
- [C321] S. Kanev, C. Scherer, M. Verhaegen, and B. De Schutter, "A BMI optimization approach to robust output-feedback control," *Proceedings of the 42nd IEEE Conference on Decision and Control*, Maui, Hawaii, pp. 851–856, Dec. 2003.
- [C322] M. van den Berg, A. Hegyi, B. De Schutter, and J. Hellendoorn, "A macroscopic traffic flow model for integrated control of freeway and urban traffic networks," *Proceedings of the 42nd IEEE Conference on Decision and Control*, Maui, Hawaii, pp. 2774–2779, Dec. 2003.
- [C323] O.J. Gietelink, J. Ploeg, B. De Schutter, and M. Verhaegen, "VEHIL: Test facility for fault management testing of advanced driver assistance systems," *Proceedings of the 10th ITS World Congress*, Madrid, Spain, 13 pp., Nov. 2003. Paper 2693.
- [C324] B. De Schutter, S.P. Hoogendoorn, H. Schuurman, and S. Stramigioli, "A multi-agent case-based traffic control scenario evaluation system," *Proceedings of the IEEE 6th International Conference on Intelligent Transportation Systems (ITSC'03)*, Shanghai, China, pp. 678–683, Oct. 2003.
- [C325] A. Hegyi, D. Ngo Duy, B. De Schutter, J. Hellendoorn, S.P. Hoogendoorn, and S. Stramigioli, "Suppressing shock waves on the A1 in The Netherlands – Model calibration and model-based predictive control," *Proceedings of the IEEE 6th International Conference on Intelligent Transportation Systems (ITSC'03)*, Shanghai, China, pp. 672–677, Oct. 2003.
- [C326] G. Schullerus, V. Krebs, B. De Schutter, and T. van den Boom, "Optimal input signal design for identification of max-plus-linear systems," *Proceedings of the 2003 European Control Conference (ECC'03)*, Cambridge, UK, 6 pp., Sept. 2003. Paper 026.
- [C327] T.J.J. van den Boom, B. De Schutter, and V. Verdult, "Identification of stochastic max-plus-linear systems," *Proceedings of the 2003 European Control Conference (ECC'03)*, Cambridge, UK, 6 pp., Sept. 2003. Paper 104.
- [C328] S.P. Hoogendoorn, H. Schuurman, and B. De Schutter, "Real-time traffic management scenario evaluation," *Proceedings of the 10th IFAC Symposium on Control in Transportation Systems (CTS 2003)*, Tokyo, Japan, pp. 343–348, Aug. 2003.
- [C329] T. Bellemans, B. De Schutter, and B. De Moor, "Anticipative model predictive control for ramp metering in freeway networks," *Proceedings of the 2003 American Control Conference*, Denver, Colorado, pp. 4077–4082, June 2003.

- [C330] A. Hegyi, B. De Schutter, and J. Hellendoorn, “MPC-based optimal coordination of variable speed limits to suppress shock waves in freeway traffic,” *Proceedings of the 2003 American Control Conference*, Denver, Colorado, pp. 4083–4088, June 2003.
- [C331] T.J.J. van den Boom, B. De Schutter, G. Schullerus, and V. Krebs, “Adaptive model predictive control using max-plus-linear input-output models,” *Proceedings of the 2003 American Control Conference*, Denver, Colorado, pp. 933–938, June 2003.
- [C332] B. De Schutter, T.J.J. van den Boom, and V. Verdult, “State space identification of max-plus-linear discrete event systems from input-output data,” *Proceedings of the 41st IEEE Conference on Decision and Control*, Las Vegas, Nevada, pp. 4024–4029, Dec. 2002.
- [C333] S. Kanev, B. De Schutter, and M. Verhaegen, “The ellipsoid algorithm for probabilistic robust controller design,” *Proceedings of the 41st IEEE Conference on Decision and Control*, Las Vegas, Nevada, pp. 2248–2253, Dec. 2002.
- [C334] T.J.J. van den Boom, B. De Schutter, and B. Heidergott, “Complexity reduction in MPC for stochastic max-plus-linear systems by variability expansion,” *Proceedings of the 41st IEEE Conference on Decision and Control*, Las Vegas, Nevada, pp. 3567–3572, Dec. 2002.
- [C335] B. De Schutter and T.J.J. van den Boom, “Connection and speed control in railway systems – A model predictive control approach,” *Proceedings of the 6th International Workshop on Discrete Event Systems (WODES’02)* (M. Silva, A. Giua, and J.M. Colom, eds.), Zaragoza, Spain, pp. 49–54, Oct. 2002.
- [C336] B. De Schutter and T.J.J. van den Boom, “Model predictive control for max-min-plus-scaling systems – Efficient implementation,” *Proceedings of the 6th International Workshop on Discrete Event Systems (WODES’02)* (M. Silva, A. Giua, and J.M. Colom, eds.), Zaragoza, Spain, pp. 343–348, Oct. 2002.
- [C337] T. Bellemans, B. De Schutter, and B. De Moor, “Model predictive control with repeated model fitting for ramp metering,” *Proceedings of the IEEE 5th International Conference on Intelligent Transportation Systems (ITSC’02)*, Singapore, pp. 236–241, Sept. 2002.
- [C338] P. Breton, A. Hegyi, B. De Schutter, and H. Hellendoorn, “Shock wave elimination/reduction by optimal coordination of variable speed limits,” *Proceedings of the IEEE 5th International Conference on Intelligent Transportation Systems (ITSC’02)*, Singapore, pp. 225–230, Sept. 2002.
- [C339] B. De Schutter, W.P.M.H. Heemels, and A. Bemporad, “Max-plus-algebraic problems and the extended linear complementarity problem – Algorithmic aspects,” *Proceedings of the 15th IFAC World Congress (b’02)*, Barcelona, Spain, pp. 151–156, July 2002.
- [C340] B. De Schutter, T.J.J. van den Boom, and G.J. Benschop, “MPC for continuous piecewise-affine systems,” *Proceedings of the 15th IFAC World Congress (b’02)*, Barcelona, Spain, pp. 59–64, July 2002.
- [C341] A. Hegyi, B. De Schutter, H. Hellendoorn, and T. van den Boom, “Optimal coordination of ramp metering and variable speed control – An MPC approach,” *Proceedings of the 2002 American Control Conference*, Anchorage, Alaska, pp. 3600–3605, May 2002.
- [C342] B. De Schutter, T. van den Boom, and A. Hegyi, “A model predictive control approach for recovery from delays in railway systems,” *Proceedings of the 81st Annual Meeting of the Transportation Research Board*, Washington, DC, 13 pp., Jan. 2002. Paper 02-2707.
- [C343] A. Hegyi, B. De Schutter, and H. Hellendoorn, “Model predictive control for optimal coordination of ramp metering and variable speed control,” *Proceedings of the 1st International NAISO Congress on Neuro Fuzzy Technologies (NF 2002)*, Havana, Cuba, 12 pp., Jan. 2002. Paper #100027-01-HH-152.
- [C344] A. Bemporad, W.P.M.H. Heemels, and B. De Schutter, “On hybrid systems and closed-loop MPC systems,” *Proceedings of the 40th IEEE Conference on Decision and Control*, Orlando, Florida, pp. 1645–1650, Dec. 2001.
- [C345] W.P.M.H. Heemels, B. De Schutter, and A. Bemporad, “On the equivalence of classes of hybrid dynamical models,” *Proceedings of the 40th IEEE Conference on Decision and Control*, Orlando, Florida, pp. 364–369, Dec. 2001.

- [C346] A. Hegyi, B. De Schutter, and H. Hellendoorn, "Model predictive control for optimal coordination of ramp metering and variable speed control," *Proceedings of the 1st European Symposium on Intelligent Technologies, Hybrid Systems and their implementation on Smart Adaptive Systems (EUNITE 2001)*, Tenerife, Spain, pp. 260–272, Dec. 2001.
- [C347] T.J.J. van den Boom and B. De Schutter, "Model predictive control for perturbed max-plus-linear systems: A stochastic approach," *Proceedings of the 40th IEEE Conference on Decision and Control*, Orlando, Florida, pp. 4535–4540, Dec. 2001.
- [C348] T.J.J. van den Boom and B. De Schutter, "MPC for perturbed max-plus-linear systems," *Proceedings of the European Control Conference 2001 (ECC'01)*, Porto, Portugal, pp. 3783–3788, Sept. 2001.
- [C349] B. De Schutter and T. van den Boom, "Model predictive control for discrete-event systems with soft and hard synchronization constraints," *Proceedings of the Workshop on Max-Plus Algebras and Their Applications to Discrete-Event Systems, Theoretical Computer Science, and Optimization*, Prague, Czech Republic, 6 pp., Aug. 2001.
- [C350] A. Hegyi, B. De Schutter, S. Hoogendoorn, R. Babuška, H. van Zuylen, and H. Schuurman, "A fuzzy decision support system for traffic control centers," *Proceedings of the 2001 IEEE Intelligent Transportation Systems Conference (ITSC'01)*, Oakland, California, pp. 358–363, Aug. 2001.
- [C351] B. De Schutter and T. van den Boom, "Model predictive control for railway networks," *Proceedings of the 2001 IEEE/ASME International Conference on Advanced Intelligent Mechatronics (AIM'01)*, Como, Italy, pp. 105–110, July 2001.
- [C352] T. Bellemans, B. De Schutter, and B. De Moor, "An improved first-order macroscopic flow model for highway traffic simulation," *Proceedings of the 2001 American Control Conference*, Arlington, Virginia, pp. 2105–2110, June 2001.
- [C353] G.J.C. Copinga, B. De Schutter, J.M.A. Scherpen, and M.J.J.M. van de Ven, "A web-based study support environment for systems and control courses," *Proceedings of the 2001 American Control Conference*, Arlington, Virginia, pp. 1155–1160, June 2001.
- [C354] B. De Schutter and T.J.J. van den Boom, "Model predictive control for max-min-plus-scaling systems," *Proceedings of the 2001 American Control Conference*, Arlington, Virginia, pp. 319–324, June 2001.
- [C355] T. van den Boom and B. De Schutter, "MPC for max-plus-linear systems: Closed-loop behavior and tuning," *Proceedings of the 2001 American Control Conference*, Arlington, Virginia, pp. 325–330, June 2001.
- [C356] A. Hegyi, B. De Schutter, S. Hoogendoorn, R. Babuška, and H. van Zuylen, "Fuzzy decision support system for traffic control centers," *Proceedings of the European Symposium on Intelligent Techniques (ESIT 2000)*, Aachen, Germany, pp. 389–395, Sept. 2000. Paper BC-01-2.
- [C357] T. van den Boom and B. De Schutter, "MPC for max-plus-linear systems: Closed-loop behavior and tuning," *Proceedings of the Workshop on Systems with Time-Domain Constraints*, Eindhoven, The Netherlands, 18 pp., Aug.–Sept. 2000.
- [C358] T. Bellemans, B. De Schutter, and B. De Moor, "On data acquisition, modeling and simulation of highway traffic," *Proceedings of the 9th IFAC Symposium on Control in Transportation Systems 2000 (CTS 2000)*, Braunschweig, Germany, pp. 22–27, June 2000.
- [C359] B. De Schutter and T. van den Boom, "Model predictive control for max-plus-linear systems," *Proceedings of the 2000 American Control Conference*, Chicago, Illinois, pp. 4046–4050, June 2000.
- [C360] T. Bellemans, B. De Schutter, and B. De Moor, "Data acquisition, interfacing and pre-processing of highway traffic data," *Proceedings of Telematics Automotive 2000*, Birmingham, UK, vol. 1, pp. 4/1–4/7, Apr. 2000.
- [C361] B. De Schutter and T. van den Boom, "Model predictive control for max-min-plus systems," in *Discrete Event Systems: Analysis and Control* (Proceedings of the 5th International Workshop on Discrete Event Systems (WODES2000), Ghent, Belgium, Aug. 2000) (R. Boel and G. Stremersch,

- eds.), vol. 569 of *The Kluwer International Series in Engineering and Computer Science*, Boston, Massachusetts: Kluwer Academic Publishers, ISBN 0-7923-7897-0, pp. 201–208, 2000.
- [C362] B. De Schutter, “Optimal control of a class of linear hybrid systems with saturation,” *Proceedings of the 38th IEEE Conference on Decision and Control*, Phoenix, Arizona, pp. 3978–3983, Dec. 1999.
- [C363] G. Nijse, M. Verhaegen, B. De Schutter, D. Westwick, and N. Doelman, “State space modeling in multichannel active control systems,” *Proceedings of the 1999 International Symposium on Active Control of Sound and Vibration (ACTIVE 99)* (S. Douglas, ed.), Fort Lauderdale, Florida, pp. 909–920, Dec. 1999.
- [C364] B. De Schutter, “Designing optimal timing and sequencing strategies for a continuous steel foundry,” *Proceedings of the European Control Conference 1999 (ECC’99)*, Karlsruhe, Germany, 5 pp., Aug.–Sept. 1999. Paper 160/BP-2.6.
- [C365] B. De Schutter, “The extended linear complementarity problem and linear complementary-slackness systems,” *Proceedings of the European Control Conference 1999 (ECC’99)*, Karlsruhe, Germany, 5 pp., Aug.–Sept. 1999. Paper 1006-3/CM-9.3.
- [C366] B. De Schutter, “Optimal traffic light control for a single intersection,” *Proceedings of the 1999 American Control Conference*, San Diego, California, pp. 2195–2199, June 1999.
- [C367] B. De Schutter and B. De Moor, “On the sequence of consecutive matrix powers of boolean matrices in the max-plus algebra,” in *Theory and Practice of Control and Systems* (Proceedings of the 6th IEEE Mediterranean Conference on Control and Systems, Alghero, Italy, June 1998) (A. Tornambè, G. Conte, and A.M. Perdon, eds.), Singapore: World Scientific, ISBN 981-02-3668-9, pp. 672–677, 1999.
- [C368] B. De Schutter and B. De Moor, “The extended linear complementarity problem and the modeling and analysis of hybrid systems,” in *Hybrid Systems V* (Proceedings of the 5th International Hybrid Systems Workshop, Notre Dame, Indiana, Sept. 1997) (P. Antsaklis, W. Kohn, M. Lemmon, A. Nerode, and S. Sastry, eds.), vol. 1567 of *Lecture Notes in Computer Science*, Springer, ISBN 3-540-65643-X, pp. 70–85, 1999.
- [C369] B. De Schutter and B. De Moor, “On the boolean minimal realization problem in the max-plus algebra,” *Proceedings of the 4th International Workshop on Discrete Event Systems (WODES’98)*, Cagliari, Italy, pp. 231–236, Aug. 1998.
- [C370] R. de Vries, B. De Schutter, and B. De Moor, “On max-algebraic models for transportation networks,” *Proceedings of the 4th International Workshop on Discrete Event Systems (WODES’98)*, Cagliari, Italy, pp. 457–462, Aug. 1998.
- [C371] R. de Vries, B. De Schutter, and B. De Moor, “Minimal realizations and state space transformations in the symmetrized max-algebra,” *Proceedings of the IFAC Conference on System Structure and Control (SSC’98)*, Nantes, France, pp. 587–592, July 1998.
- [C372] B. De Schutter, V. Blondel, and B. De Moor, “On the complexity of the boolean minimal realization problem in the max-plus algebra,” *Advances in Systems, Signals, Control and Computers* (Proceedings of the International Conference on Systems, Signals, Control, Computers (SSCC’98), Durban, South Africa, Sept. 1998) (V.B. Bajić, ed.), vol. II, pp. 451–455, 1998.
- [C373] T. Van Gestel, K. De Cock, R. Jans, B. De Schutter, Z. Degraeve, and B. De Moor, “Discrete stochastic modelling of ATM-traffic with circulant transition matrices,” *Mathematical Theory of Networks and Systems* (Proceedings of the MTNS-98 Symposium, held in Padova, Italy, July 1998) (A. Beghi, L. Finesso, and G. Picci, eds.), Padova, Italy: Il Poligrafo, pp. 891–894, 1998.
- [C374] B. De Schutter and B. De Moor, “Optimal traffic light control for a single intersection,” *Proceedings of the 1997 International Symposium on Nonlinear Theory and its Applications (NOLTA’97)*, Honolulu, Hawaii, pp. 1085–1088, Nov.–Dec. 1997.
- [C375] B. De Schutter and B. De Moor, “The extended linear complementarity problem and its applications in the analysis and control of discrete event systems and hybrid systems,” *Proceedings of the IEEE Singapore International Symposium on Control Theory and Applications (SISCTA’97)*, Singapore, pp. 394–398, July 1997.

- [C376] B. De Schutter and B. De Moor, “The QR decomposition and the singular value decomposition in the symmetrized max-plus algebra,” *Proceedings of the European Control Conference (ECC’97)*, Brussels, Belgium, 6 pp., July 1997. Paper 295/TH-E K6.
- [C377] B. De Schutter and B. De Moor, “Matrix factorization and minimal state space realization in the max-plus algebra,” *Proceedings of the 1997 American Control Conference*, Albuquerque, New Mexico, pp. 3136–3140, June 1997.
- [C378] B. De Schutter and B. De Moor, “Generalized linear complementarity problems and the analysis of continuously variable systems and discrete event systems,” in *Hybrid and Real-Time Systems (Proceedings of the International Workshop on Hybrid and Real-Time Systems (HART’97)*, Grenoble, France, Mar. 1997) (O. Maler, ed.), vol. 1201 of *Lecture Notes in Computer Science*, Springer, ISBN 3-540-62600-X, pp. 409–414, 1997.
- [C379] B. De Schutter and B. De Moor, “Applications of the extended linear complementarity problem in the max-plus algebra,” *Proceedings of the International Workshop on Discrete Event Systems (WODES’96)*, Edinburgh, UK, pp. 69–74, Aug. 1996.
- [C380] B. De Schutter and B. De Moor, “State space transformations and state space realization in the max algebra,” *Proceedings of the 34th IEEE Conference on Decision and Control*, New Orleans, Louisiana, pp. 891–896, Dec. 1995.
- [C381] B. De Schutter and B. De Moor, “Minimal state space realization of MIMO systems in the max algebra,” *Proceedings of the 3rd European Control Conference (ECC’95)*, Rome, Italy, pp. 411–416, Sept. 1995.
- [C382] B. De Schutter and B. De Moor, “The characteristic equation and minimal state space realization of SISO systems in the max algebra,” in *11th International Conference on Analysis and Optimization of Systems* (Sophia-Antipolis, France, June 1994) (G. Cohen and J.P. Quadrat, eds.), vol. 199 of *Lecture Notes in Control and Information Sciences*, Springer, ISBN 3-540-19896-2, pp. 273–282, 1994.

## 7 National conference papers (published or accepted)

- [O1] L. Buşoniu, B. De Schutter, R. Babuška, and D. Ernst, “Using prior knowledge to accelerate online least-squares policy iteration,” *Proceedings of the 2010 IEEE International Conference on Automation, Quality and Testing, Robotics (AQTR 2010)*, Cluj-Napoca, Romania, 6 pp., May 2010. Paper A-S2-1/3005.
- [O2] Zs. Lendek, R. Babuška, and B. De Schutter, “Stability bounds for fuzzy estimation and control – Part II: Output-feedback control,” *Proceedings of the 2010 IEEE International Conference on Automation, Quality and Testing, Robotics (AQTR 2010)*, Cluj-Napoca, Romania, May 2010. Paper A-S1-4/3030.
- [O3] Zs. Lendek, R. Babuška, and B. De Schutter, “Stability bounds for fuzzy estimation and control – Part I: State estimation,” *Proceedings of the 2010 IEEE International Conference on Automation, Quality and Testing, Robotics (AQTR 2010)*, Cluj-Napoca, Romania, May 2010. Paper A-S1-3/3023.
- [O4] L. Baskar, B. De Schutter, and H. Hellendoorn, “Intelligent speed adaptation in intelligent vehicle highway systems – A model predictive control approach,” *Proceedings of the 10th TRAIL Congress 2008 – TRAIL in Perspective – CD-ROM*, Rotterdam, The Netherlands, 13 pp., Oct. 2008.
- [O5] A. Tarău, B. De Schutter, and H. Hellendoorn, “Route choice control for DCVs in baggage handling systems – Comparison between centralized and decentralized approaches,” *Proceedings of the 10th TRAIL Congress 2008 – TRAIL in Perspective – CD-ROM*, Rotterdam, The Netherlands, 14 pp., Oct. 2008.
- [O6] M. van den Berg, B. De Schutter, H. Hellendoorn, and A. Hegyi, “Day-to-day route choice control in traffic networks – A model predictive control approach based on mixed integer linear programming,” *Proceedings of the 10th TRAIL Congress 2008 – TRAIL in Perspective – CD-ROM*, Rotterdam, The Netherlands, 14 pp., Oct. 2008.

- [O7] S. Zegeye, B. De Schutter, H. Hellendoorn, and E. Breunese, "A model-based predictive traffic control approach for the reduction of emissions," *Proceedings of the 10th TRAIL Congress 2008 – TRAIL in Perspective – Selected Papers*, Rotterdam, The Netherlands, 11 pp., Oct. 2008.
- [O8] L.D. Baskar, B. De Schutter, and H. Hellendoorn, "Decentralized traffic control and management with intelligent vehicles," *Proceedings of the 9th TRAIL Congress 2006 – TRAIL in Motion – CD-ROM*, Rotterdam, The Netherlands, 16 pp., Nov. 2006.
- [O9] A. Tarău, B. De Schutter, and H. Hellendoorn, "Multi-agent controllers for large-scale transportation systems – Application to postal automation," *Proceedings of the 9th TRAIL Congress 2006 – TRAIL in Motion – CD-ROM*, Rotterdam, The Netherlands, 12 pp., Nov. 2006.
- [O10] M. van den Berg, A. Hegyi, B. De Schutter, and H. Hellendoorn, "Influencing long-term route choice by traffic control measures, a basic model study," *Proceedings of the 9th TRAIL Congress 2006 – TRAIL in Motion – CD-ROM*, Rotterdam, The Netherlands, 16 pp., Nov. 2006.
- [O11] R. van Katwijk, B. De Schutter, and H. Hellendoorn, "Look-ahead traffic adaptive control of a single intersection – A taxonomy and a new hybrid algorithm," *Proceedings of the 9th TRAIL Congress 2006 – TRAIL in Motion – CD-ROM*, Rotterdam, The Netherlands, 14 pp., Nov. 2006.
- [O12] A. Hegyi and B. De Schutter, "Dynamisch verkeersmanagement voor het verbeteren van de luchtkwaliteit," *Proceedings of the Congres Geluid, Trillingen en Luchtkwaliteit in Nederland* (Conference on Noise, Vibrations, and Air Quality in The Netherlands), Nieuwegein, The Netherlands, 4 pp., Nov. 2005. In Dutch.
- [O13] L. Buşoni, B. De Schutter, and R. Babuška, "Multiagent reinforcement learning with adaptive state focus," *Proceedings of the 17th Belgium-Netherlands Conference on Artificial Intelligence (BNAIC 2005)* (K. Verbeeck, K. Tuyls, A. Nowé, B. Manderick, and B. Kuijpers, eds.), Brussels, Belgium, pp. 35–42, Oct. 2005.
- [O14] O.J. Gietelink, B. De Schutter, and M. Verhaegen, "A probabilistic approach for validation of advanced driver assistance systems," *Proceedings of the 8th TRAIL Congress 2004 – A World of Transport, Infrastructure and Logistics – CD-ROM*, Rotterdam, The Netherlands, 17 pp., Nov. 2004.
- [O15] A. Hegyi, B. De Schutter, and J. Hellendoorn, "Optimal freeway control in networks with bottlenecks and static demands," *Proceedings of the 8th TRAIL Congress 2004 – A World of Transport, Infrastructure and Logistics – Selected Papers* (P.H.L. Bovy, ed.), Rotterdam, The Netherlands, pp. 205–227, Nov. 2004.
- [O16] R.R. Negenborn, B. De Schutter, M.A. Wiering, and J. Hellendoorn, "Experience-based model predictive control using reinforcement learning," *Proceedings of the 8th TRAIL Congress 2004 – A World of Transport, Infrastructure and Logistics – CD-ROM*, Rotterdam, The Netherlands, 18 pp., Nov. 2004.
- [O17] M. van den Berg, B. De Schutter, and H. Hellendoorn, "Integrated model predictive control for mixed urban and freeway networks," *Proceedings of the 8th TRAIL Congress 2004 – A World of Transport, Infrastructure and Logistics – Selected Papers* (P.H.L. Bovy, ed.), Rotterdam, The Netherlands, pp. 27–49, Nov. 2004.
- [O18] R.T. van Katwijk, P. van Koningsbruggen, B. De Schutter, and J. Hellendoorn, "A test bed for multi-agent control systems in road traffic management," *Proceedings of the 8th TRAIL Congress 2004 – A World of Transport, Infrastructure and Logistics – Selected Papers* (P.H.L. Bovy, ed.), Rotterdam, The Netherlands, pp. 309–329, Nov. 2004.
- [O19] A. Hegyi, B. De Schutter, and J. Hellendoorn, "Optimal coordination of variable speed limits to suppress shock waves," *Proceedings of the 7th TRAIL Congress 2002 – TRAILblazing into the Future – Selected Papers* (P.H.L. Bovy, ed.), Rotterdam, The Netherlands, pp. 197–220, Nov. 2002.
- [O20] A. Hegyi, B. De Schutter, R. Babuška, S. Hoogendoorn, H. van Zuylen, and H. Schuurman, "A fuzzy decision support system for traffic control centers," *Proceedings of the TRAIL 6th Annual Congress 2000 – Transport, Infrastructure and Logistics, Part 2*, The Hague/Scheveningen, The Netherlands, 10 pp., Dec. 2000.



## 8 PhD thesis

- [D1] B. De Schutter, *Max-Algebraic System Theory for Discrete Event Systems*<sup>2</sup>. PhD thesis, Faculty of Applied Sciences, K.U.Leuven, Leuven, Belgium, ISBN 90-5682-016-8, 331 pp., Feb. 1996.

## 9 Project reports

- [P1] A. Kozma, C. Savorgnan, R. Negenborn, and B. De Schutter, “Report on or proceedings of a special session at an international conference,” Deliverable D8.2.1, European FP7 STREP project HD-MPC, 16 pp., Feb. 2010.
- [P2] S. Lin and B. De Schutter, “A survey on coordinated traffic control,” Tech. rep. 09-054, Delft Center for Systems and Control, Delft University of Technology, Delft, The Netherlands, 44 pp., Dec. 2009. Report for the Centre for Transport and Navigation (DVS) of the Dutch Ministry of Transport, Public Works and Water Management. Confidential.
- [P3] H. Scheu, J.C. Calderón, D. Doan, J.F. García, R. Negenborn, A. Tarău, F.V. Arroyave, B. De Schutter, J.J. Espinosa, and W. Marquardt, “Report on assessment of existing coordination mechanisms for simple case studies, and on possible options for improving and extending these coordination mechanisms,” Deliverable D3.3.1, European FP7 STREP project HD-MPC, 30 pp., Dec. 2009.
- [P4] D. Doan, T. Keviczky, and B. De Schutter, “Overview, toolbox and tutorial manual of existing state-of-the-art distributed optimization algorithms,” Deliverable D4.1.2, European FP7 STREP project HD-MPC, 17 pp., Aug. 2009.
- [P5] B. De Schutter, R. Negenborn, M. Diehl, K. Gevaert, and C. Savorgnan, “Report on the set-up of a website including downloads of reports, presentations, open-source software and a database of benchmark problems,” Deliverable D8.1.1, European FP7 STREP project HD-MPC, 11 pp., Mar. 2009.
- [P6] A. Hegyi, B. De Schutter, J. Hellendoorn, and R.T. van Katwijk, “Testbed selection for the Transumo/ATMA sub-project *Integrated Model Predictive Control (IMPreC)*,” Tech. rep., Delft Center for Systems and Control, Delft University of Technology, Delft, The Netherlands, 11 pp., Feb. 2007. Report for the BSIK-TRANSUMO ATMA project.
- [P7] D. Girimonte, R. Babuška, and B. De Schutter, “Dual state and parameter estimation for road traffic networks,” Tech. rep., Delft Center for Systems and Control, Delft University of Technology, Delft, The Netherlands, 54 pp., Aug. 2005. Report for the BSIK-ICIS project.
- [P8] S.P. Hoogendoorn and B. De Schutter, “BOSS scenario evaluatie,” Tech. rep., Transport Research Centre (AVV), Ministry of Transport, Public Works and Water Management, Rotterdam, The Netherlands, 65 pp., Dec. 2002. Final report for the AVV project BOSS Scenario Evaluation. In Dutch. Confidential.
- [P9] S.P. Hoogendoorn, B. De Schutter, A. Hegyi, H.J. van Zuylen, and R. Babuška, “Verkenning fuzzy decision support systeem – Eindrapport,” Tech. rep., Transport Research Centre (AVV), Ministry of Transport, Public Works and Water Management, Rotterdam, The Netherlands, 69 pp., Sept. 2000. Final report for the AVV project Fuzzy Decision Support System. In Dutch. Confidential.
- [P10] S.P. Hoogendoorn, H.J. van Zuylen, B. De Schutter, and A. Hegyi, “Functioneel ontwerp fuzzy decision support systeem,” Tech. rep. VK 2000.008, Transportation Planning and Traffic Engineering Section, Faculty of Civil Engineering and Geosciences, Delft University of Technology, Delft, The Netherlands, 31 pp., Aug. 2000. Report for the AVV project Fuzzy Decision Support System. In Dutch. Confidential.
- [P11] G. Nijssen, D. Westwick, B. De Schutter, and M. Verhaegen, “Simplification of multichannel active noise control systems: A feasibility study,” Tech. rep. TUD/ITS/ET/SCE:1999.05, Control Systems Engineering, Fac. of Information Technology and Systems, Delft University of Technology, Delft,

---

<sup>2</sup>For my PhD thesis I have been awarded the Biennial 1998 Richard C. DiPrima Prize and the Triennial Robert Stock Prize for PhD theses in Exact Sciences at K.U.Leuven in the period 1996–1997–1998.

The Netherlands, 46 pp., June 1999. Final report for the TNO-TPD project on active noise control. Confidential.

- [P12] D. Westwick, G. Nijse, B. De Schutter, and M. Verhaegen, “Simplification of multichannel active noise control systems: Midterm progress report,” Tech. rep. TUD/ITS/ET/SCE:1999.01, Control Systems Engineering, Fac. of Information Technology and Systems, Delft University of Technology, Delft, The Netherlands, 30 pp., Mar. 1999. Midterm progress report for the TNO-TPD project on active noise control. Confidential.

## 10 Abstracts

- [A1] F. Alavi, N. van de Wouw, and B. De Schutter, “Power balance of microgrids using min-max control of fuel cell cars,” *Book of Abstracts of the 35th Benelux Meeting on Systems and Control*, Soesterberg, The Netherlands, p. 84, Mar. 2016.
- [A2] S. Yuan, S. Baldi, and B. De Schutter, “Model reference adaptive control of uncertain switched system with slow switching laws,” *Book of Abstracts of the 35th Benelux Meeting on Systems and Control*, Soesterberg, The Netherlands, p. 26, Mar. 2016.
- [A3] Z. Su and S. Baldi, B. De Schutter, “Game-theoretic approach for optimal contract design in railway networks,” *Book of Abstracts of the 34th Benelux Meeting on Systems and Control*, Lommel, Belgium, Mar. 2015.
- [A4] B. Kersbergen, T. van den Boom, and B. De Schutter, “Rescheduling of railway traffic using switching max-plus algebra: An explicit model approach,” *Book of Abstracts of the 32nd Benelux Meeting on Systems and Control*, Houffalize, Belgium, p. 82, Mar. 2013.
- [A5] S. Liu, B. De Schutter, and H. Hellendoorn, “Traffic flow and emission control based on multi-class models,” *Book of Abstracts of the 32nd Benelux Meeting on Systems and Control*, Houffalize, Belgium, p. 81, Mar. 2013.
- [A6] R. Luo, T.J.J. van den Boom, and B. De Schutter, “Multi-agent control of urban rail transit vehicles,” *Book of Abstracts of the 32nd Benelux Meeting on Systems and Control*, Houffalize, Belgium, p. 80, Mar. 2013.
- [A7] K. Verbert, B. De Schutter, R. Babuška, and T. van den Boom, “Dempster-Shafer inference for decision support in railway systems,” *Book of Abstracts of the 32nd Benelux Meeting on Systems and Control*, Houffalize, Belgium, p. 79, Mar. 2013.
- [A8] J. Xu, B. De Schutter, and T. van den Boom, “Model predictive control for max-plus linear systems via optimistic optimization,” *Book of Abstracts of the 32nd Benelux Meeting on Systems and Control*, Houffalize, Belgium, p. 39, Mar. 2013.
- [A9] D. Adzkiya, B. De Schutter, and A. Abate, “Reachability analysis of autonomous max-plus-linear systems,” *Book of Abstracts of the 31th Benelux Meeting on Systems and Control*, Heijen, The Netherlands, p. 44, Mar. 2012.
- [A10] M. Hajiahmadi, B. De Schutter, and H. Hellendoorn, “Model predictive control for traffic networks: A mixed-logical dynamic approach based on the link transmission model,” *Book of Abstracts of the 31th Benelux Meeting on Systems and Control*, Heijen, The Netherlands, p. 27, Mar. 2012.
- [A11] B. Kersbergen, T. van den Boom, and B. De Schutter, “Model predictive railway traffic management,” *Book of Abstracts of the 31th Benelux Meeting on Systems and Control*, Heijen, The Netherlands, p. 80, Mar. 2012.
- [A12] L. Li, R. Negenborn, and B. De Schutter, “Multi-level control for intelligent intermodal transport networks,” *Book of Abstracts of the 31th Benelux Meeting on Systems and Control*, Heijen, The Netherlands, p. 99, Mar. 2012.
- [A13] S. Liu and B. De Schutter, “Distributed control of large-scale hybrid systems,” *Book of Abstracts of the 31th Benelux Meeting on Systems and Control*, Heijen, The Netherlands, p. 175, Mar. 2012.

- [A14] Y. Wang, B. De Schutter, and T. van den Boom, "Optimal trajectory planning for trains under operational constraints," *Book of Abstracts of the 31th Benelux Meeting on Systems and Control*, Heijden, The Netherlands, p. 82, Mar. 2012.
- [A15] Y. Zeinaly, B. De Schutter, and H. Hellendoorn, "A model predictive control approach for line balancing problem," *Book of Abstracts of the 31th Benelux Meeting on Systems and Control*, Heijden, The Netherlands, p. 29, Mar. 2012.
- [A16] Z. Cong, B. De Schutter, and R. Babuška, "Ant colony optimization for dynamic traffic routing using model predictive control," *Book of Abstracts of the 30th Benelux Meeting on Systems and Control*, Lommel, Belgium, p. 62, Mar. 2011.
- [A17] N. Groot, B. De Schutter, and H. Hellendoorn, "Stackelberg games in multi-level control – An introduction," *Book of Abstracts of the 30th Benelux Meeting on Systems and Control*, Lommel, Belgium, p. 204, Mar. 2011.
- [A18] N. Weiss, T.J.J. van den Boom, B. De Schutter, and R.M.P. Goverde, "Railway traffic management using switching max-plus linear systems and model predictive control: A research framework," *Book of Abstracts of the 30th Benelux Meeting on Systems and Control*, Lommel, Belgium, p. 26, Mar. 2011.
- [A19] Z. Cong, B. De Schutter, and R. Babuška, "Swarm intelligence for traffic control," *Book of Abstracts of the 29th Benelux Meeting on Systems and Control*, Heeze, The Netherlands, p. 35, Mar.–Apr. 2010.
- [A20] S.S. Farahani, T.J.J. van den Boom, and B. De Schutter, "An approximation method for stochastic max-plus linear systems," *Book of Abstracts of the 29th Benelux Meeting on Systems and Control*, Heeze, The Netherlands, p. 90, Mar.–Apr. 2010.
- [A21] N. Groot, B. De Schutter, and H. Hellendoorn, "Multi-level model predictive control of large-scale networks," *Book of Abstracts of the 29th Benelux Meeting on Systems and Control*, Heeze, The Netherlands, p. 107, Mar.–Apr. 2010.
- [A22] Z. Hidayat, R. Babuška, and B. De Schutter, "Comparison of decentralized Kalman filters for heated plates," *Book of Abstracts of the 29th Benelux Meeting on Systems and Control*, Heeze, The Netherlands, p. 175, Mar.–Apr. 2010.
- [A23] G.A.D. Lopes, R. Babuška, A.J.J. van den Boom, and B. De Schutter, "Modeling legged locomotion via the max-plus algebra," *Book of Abstracts of the 29th Benelux Meeting on Systems and Control*, Heeze, The Netherlands, p. 44, Mar.–Apr. 2010.
- [A24] D. Doan, T. Keviczky, B. De Schutter, I. Necoara, and M. Diehl, "A Jacobi algorithm for distributed model predictive control of dynamically coupled systems," *Book of Abstracts of the 28th Benelux Meeting on Systems and Control*, Spa, Belgium, p. 66, Mar. 2009.
- [A25] S. Lin, B. De Schutter, and Y. Xi, "A simplified model for urban traffic network control," *Book of Abstracts of the 28th Benelux Meeting on Systems and Control*, Spa, Belgium, p. 90, Mar. 2009.
- [A26] S.K. Zegeye, B. De Schutter, and J. Hellendoorn, "Model predictive control for the reduction of traffic emissions," *Book of Abstracts of the 28th Benelux Meeting on Systems and Control*, Spa, Belgium, p. 135, Mar. 2009.
- [A27] M. Gerard, M. Verhaegen, and B. De Schutter, "A hybrid steepest descent method for constrained convex optimization," *Abstracts of the 27th Benelux Meeting on Systems and Control*, Heeze, The Netherlands, p. 135, Mar. 2008.
- [A28] Ö.A. Tekin, R. Babuška, and B. De Schutter, "Automatic control code generation for mechatronic systems," *Abstracts of the 27th Benelux Meeting on Systems and Control*, Heeze, The Netherlands, p. 58, Mar. 2008.
- [A29] J. van Ast, R. Babuška, and B. De Schutter, "Distributed surveillance by swarms of moving agents," *Abstracts of the 27th Benelux Meeting on Systems and Control*, Heeze, The Netherlands, p. 93, Mar. 2008.

- [A30] S.K. Zegeye, B. De Schutter, and J. Hellendoorn, "Model-based traffic flow control for the reduction of fuel consumption and exhaust emissions," *Abstracts of the 27th Benelux Meeting on Systems and Control*, Heeze, The Netherlands, p. 89, Mar. 2008.
- [A31] L.D. Baskar, B. De Schutter, and H. Hellendoorn, "Hierarchical traffic control and management with intelligent vehicles," *Abstracts of the 26th Benelux Meeting on Systems and Control*, Lommel, Belgium, p. 56, Mar. 2007.
- [A32] L. Buşoni, B. De Schutter, and R. Babuška, "Fuzzy approximation in continuous-space reinforcement learning," *Abstracts of the 26th Benelux Meeting on Systems and Control*, Lommel, Belgium, p. 142, Mar. 2007.
- [A33] Zs. Lendek, R. Babuška, and B. De Schutter, "Distributed fuzzy observers," *Abstracts of the 26th Benelux Meeting on Systems and Control*, Lommel, Belgium, p. 182, Mar. 2007.
- [A34] A. Tarău, B. De Schutter, and H. Hellendoorn, "Multi-agent control for large-scale transportation systems," *Abstracts of the 26th Benelux Meeting on Systems and Control*, Lommel, Belgium, p. 155, Mar. 2007.
- [A35] J.M. van Ast, R. Babuška, and B. De Schutter, "Swarm intelligence methods for traffic control," *Abstracts of the 26th Benelux Meeting on Systems and Control*, Lommel, Belgium, p. 54, Mar. 2007.
- [A36] L. Buşoni, B. De Schutter, and R. Babuška, "Learning in multiagent systems: A Survey," *Abstracts of the 25th Benelux Meeting on Systems and Control*, Heeze, The Netherlands, p. 29, Mar. 2006.
- [A37] D. Corona and B. De Schutter, "Adaptive cruise controller design: A comparative assessment for piecewise affine systems," *Abstracts of the 25th Benelux Meeting on Systems and Control*, Heeze, The Netherlands, p. 132, Mar. 2006.
- [A38] Zs. Lendek, R. Babuška, and B. De Schutter, "Nonlinear state estimation for control: Comparison of UKF and PF," *Abstracts of the 25th Benelux Meeting on Systems and Control*, Heeze, The Netherlands, p. 93, Mar. 2006.
- [A39] R.R. Negenborn, B. De Schutter, and H. Hellendoorn, "Multi-agent model predictive control of transportation networks," *Abstracts of the 25th Benelux Meeting on Systems and Control*, Heeze, The Netherlands, p. 131, Mar. 2006.
- [A40] M. van den Berg, B. De Schutter, and J. Hellendoorn, "Re-routing traffic with on-ramp and off-ramp metering," *Abstracts of the 25th Benelux Meeting on Systems and Control*, Heeze, The Netherlands, p. 105, Mar. 2006.
- [A41] R.R. Negenborn, B. De Schutter, and H. Hellendoorn, "Multi-agent control of large-scale network systems," *Abstracts of the 24th Benelux Meeting on Systems and Control*, Houffalize, Belgium, p. 59, Mar. 2005.
- [A42] M. van den Berg, B. De Schutter, and J. Hellendoorn, "Travel time information as control measure," *Abstracts of the 24th Benelux Meeting on Systems and Control*, Houffalize, Belgium, p. 58, Mar. 2005.
- [A43] O. Gietelink, J. Ploeg, B. De Schutter, and M. Verhaegen, "Validation of advanced driver assistance systems with VEHIL," *Abstracts of the 23rd Benelux Meeting on Systems and Control*, Helvoirt, The Netherlands, p. 15, Mar. 2004.
- [A44] A. Hegyi, B. De Schutter, and H. Hellendoorn, "Implications of the capacity drop phenomenon for freeway traffic control," *Abstracts of the 23rd Benelux Meeting on Systems and Control*, Helvoirt, The Netherlands, p. 17, Mar. 2004.
- [A45] I. Necoara, B. De Schutter, T. van den Boom, and H. Hellendoorn, "Model predictive control for perturbed continuous PWA systems," *Abstracts of the 23rd Benelux Meeting on Systems and Control*, Helvoirt, The Netherlands, p. 87, Mar. 2004.
- [A46] M. van den Berg, B. De Schutter, and J. Hellendoorn, "Model predictive control for mixed urban and freeway networks," *Abstracts of the 23rd Benelux Meeting on Systems and Control*, Helvoirt, The Netherlands, p. 101, Mar. 2004.

- [A47] B. De Schutter, I. Necoara, S. Hoogendoorn, and H. Schuurman, "A multi-agent case-based traffic control scenario evaluation system," *Abstracts of the 22nd Benelux Meeting on Systems and Control*, Lommel, Belgium, p. 141, Mar. 2003.
- [A48] O. Gietelink, J. Ploeg, B. De Schutter, and M. Verhaegen, "Design methodology for fault-tolerant control of advanced driver assistance systems," *Abstracts of the 22nd Benelux Meeting on Systems and Control*, Lommel, Belgium, p. 134, Mar. 2003.
- [A49] A. Hegyi, B. De Schutter, H. Hellendoorn, and D. Ngoduy, "Optimal speed limits to suppress shock waves on the A1," *Abstracts of the 22nd Benelux Meeting on Systems and Control*, Lommel, Belgium, p. 140, Mar. 2003.
- [A50] T. Bellemans, S. Maerivoet, B. De Moor, and B. De Schutter, "Potential benefits of ramp metering on motorways," *Abstracts of the 21th Benelux Meeting on Systems and Control*, Veldhoven, The Netherlands, p. 109, Mar. 2002.
- [A51] A. Hegyi, B. De Schutter, and H. Hellendoorn, "Model predictive control for optimal coordination of ramp metering and variable speed control," *Abstracts of the 21th Benelux Meeting on Systems and Control*, Veldhoven, The Netherlands, p. 110, Mar. 2002.
- [A52] M. Heemels, B. De Schutter, and A. Bemporad, "On the equivalence of hybrid dynamical models," *Abstracts of the 20th Benelux Meeting on Systems and Control*, Houffalize, Belgium, p. 110, Mar. 2001.
- [A53] T. Bellemans, B. De Schutter, and B. De Moor, "Fitting of a flow model to sensor data of highway traffic," *Abstracts of the 19th Benelux Meeting on Systems and Control*, Mierlo, The Netherlands, p. 31, Mar. 2000.
- [A54] A. Hegyi, B. De Schutter, S. Hoogendoorn, R. Babuška, and H. van Zuylen, "Fuzzy decision support system for traffic control centers," *Abstracts of the 19th Benelux Meeting on Systems and Control*, Mierlo, The Netherlands, p. 34, Mar. 2000.
- [A55] G. Nijse, M. Verhaegen, B. De Schutter, D. Westwick, and N. Doelman, "State space model representations in adaptive disturbance rejection systems," *Abstracts of the 19th Benelux Meeting on Systems and Control*, Mierlo, The Netherlands, p. 122, Mar. 2000.
- [A56] T. Bellemans, B. De Schutter, and B. De Moor, "Optimal ramp metering on highways," *Abstracts of the 18th Benelux Meeting on Systems and Control*, Houthalen, Belgium, p. 97, Mar. 1999.
- [A57] B. De Schutter, B. De Moor, and R. de Vries, "The extended linear complementarity problem and optimal traffic light control," *Abstracts of the 16th European Conference on Operational Research (EURO XVI)*, Brussels, Belgium, p. 63, July 1998.
- [A58] B. De Schutter and B. De Moor, "Optimal traffic light control for a single intersection," *Abstracts of the 17th Benelux Meeting on Systems and Control*, Mierlo, The Netherlands, p. 215, Mar. 1998.
- [A59] B. De Schutter and B. De Moor, "The extended linear complementarity problem and the modeling and analysis of hybrid systems," *Book of Extended Abstracts of the Hybrid Systems V (HS'97) Workshop*, Notre Dame, Indiana, pp. 15–20, Sept. 1997.
- [A60] B. De Moor, P. De Gerssem, B. De Schutter, and W. Favoreel, "DAISY: A database for identification of systems," *Abstracts of the 16th Benelux Meeting on Systems and Control*, Houffalize, Belgium, Mar. 1997.
- [A61] B. De Schutter and B. De Moor, "Matrix factorization and minimal state space realization in the max-plus algebra," *Abstracts of the 16th Benelux Meeting on Systems and Control*, Houffalize, Belgium, Mar. 1997.
- [A62] B. De Schutter and B. De Moor, "The extended linear complementarity problem and its applications in the analysis of discrete event systems," *Abstracts of the 11th Conference on Quantitative Methods for Decision Making (ORBEL 11)*, Namur, Belgium, pp. 43–45, Jan. 1997.
- [A63] B. De Schutter and B. De Moor, "Applications of the extended linear complementarity problem in the max-plus algebra," *Abstracts of the 15th Benelux Meeting on Systems and Control*, Mierlo, The Netherlands, Mar. 1996.

- [A64] B. De Schutter and B. De Moor, “Minimal state space realization of MIMO systems in the max algebra,” *Abstracts of the 14th Benelux Meeting on Systems and Control*, Houthalen, Belgium, Mar. 1995.
- [A65] B. De Schutter and B. De Moor, “The extended linear complementarity problem,” *Abstracts of ICCAM 94 (International Congress on Computational and Applied Mathematics)*, Leuven, Belgium, July 1994.

## 11 Lecture notes

- [L1] B. De Schutter and W.P.M.H. Heemels, *Modeling and Control of Hybrid Systems*, Lecture Notes of the Course “Modeling and Control of Hybrid Systems” (SC4160), Delft University of Technology, 157 pp., Jan. 2011. Revised edition.
- [L2] B. De Schutter and W.P.M.H. Heemels, *Modeling and Control of Hybrid Systems*, Lecture Notes of the DISC Course “Modeling and Control of Hybrid Systems”, DISC (Dutch Institute of Systems and Control), 157 pp., Oct. 2010. Revised edition.
- [L3] T. van den Boom and B. De Schutter, *Optimization in Systems and Control*, Lecture Notes of the Course “Optimization in Systems and Control” (SC4091), Delft University of Technology, 194 pp., Aug. 2010. Revised edition.
- [L4] B. De Schutter, *Advanced Traffic Control: Model-Based Predictive Control*, Lecture Notes for the lecture on Advanced Traffic Control of the PAO Course Dynamic Traffic Management, Delft, The Netherlands, Delft University of Technology, 17 pp., Sept. 2009. Revised edition.

## 12 Reviews for Mathematical Reviews

- [R1] B. De Schutter, Review of “Duality and separation theorems in idempotent semimodules” (by G. Cohen, S. Gaubert, and J.P. Quadrat, *Linear Algebra and Its Applications*, vol. 379, pp. 395–422, 2004), *Mathematical Reviews*, 2005. Review 2005e:46007.
- [R2] B. De Schutter, Review of “On the linear assignment problem for special matrices” (by P. Butkovič and R.A. Cuninghame-Green, *IMA Journal of Management Mathematics*, vol. 15, no. 1, pp. 1–12, 2004), *Mathematical Reviews*, 2005. Review 2005f:93115.
- [R3] B. De Schutter, Review of “Comparison and aggregation of max-plus linear systems” (by J. Ledoux and L. Truffet, *Linear Algebra and Its Applications*, vol. 378, pp. 245–272, 2004), *Mathematical Reviews*, 2004. Review 2004m:93085.
- [R4] B. De Schutter, Review of “Continuous extension of order-preserving homogeneous maps” (by A.D. Burbanks, C.T. Sparrow, and R.D. Nussbaum, *Kybernetika*, Special Issue on Max-Plus Algebras, vol. 39, no. 2, pp. 205–215, 2003), *Mathematical Reviews*, 2004. Review 2004g:06010.
- [R5] B. De Schutter, Review of *Constrained Optimal Control of Linear and Hybrid Systems* (by F. Borrelli, vol. 290 of *Lecture Notes in Control and Information Sciences*, Berlin: Springer, 2003), *Mathematical Reviews*, 2004. Review 2004i:49001.
- [R6] B. De Schutter, Review of *Piecewise Linear Control Systems* (by M. Johansson, vol. 284 of *Lecture Notes in Control and Information Sciences*, Berlin, Germany: Springer, 2003), *Mathematical Reviews*, 2004. Review 2004d:93002.
- [R7] B. De Schutter, Review of “Games for synthesis of controllers with partial observation” (by A. Arnold, A. Vincent, and I. Walukiewicz, *Theoretical Computer Science*, vol. 303, no. 1, pp. 7–34, 2003), *Mathematical Reviews*, 2004. Review 2004h:93121.
- [R8] B. De Schutter, Review of “Minimax—or feared value— $L^1/L^\infty$  control” (by P. Bernhard, *Theoretical Computer Science*, Special Issue on Max-Plus Algebras, vol. 293, no. 1, pp. 25–44, 2003), *Mathematical Reviews*, 2004. Review 2004b:49054.

- [R9] B. De Schutter, Review of “Reduced supervisors for timed discrete-event systems” (by P. Gohari and W.M. Wonham, *IEEE Transactions on Automatic Control*, vol. 48, no. 7, pp. 1187–1198, 2003), *Mathematical Reviews*, 2004. Review 2004c:93075.
- [R10] B. De Schutter, Review of “A general architecture for decentralized supervisory control of discrete-event systems” (by T.S. Yoo and S. Lafortune, *Discrete Event Dynamic Systems: Theory and Applications*, vol. 12, no. 3, pp. 335–377, 2002), *Mathematical Reviews*, 2003. Review 2003h:93046.
- [R11] B. De Schutter, Review of “Discrete supervisory control of hybrid systems based on  $l$ -complete approximations” (by T. Moor, J. Raisch, S. O’Young, *Discrete Event Dynamic Systems: Theory and Applications*, vol. 12, no. 1, pp. 83–107, 2002), *Mathematical Reviews*, 2003. Review 2003a:93045.
- [R12] B. De Schutter, Review of “Generalized surrogate problem methodology for online stochastic discrete optimization” (by K. Gokbayrak and C.G. Cassandras, *Journal of Optimization Theory and Applications*, vol. 114, no. 1, pp. 97–132, 2002), *Mathematical Reviews*, 2003. Review 2003f:90048.
- [R13] B. De Schutter, Review of “Regular ordering and applications in control policies” (by E. Altman, B. Gaujal, and A. Hordijk, *Discrete Event Dynamic Systems: Theory and Applications*, vol. 12, no. 2, pp. 187–210, 2002), *Mathematical Reviews*, 2003. Review 2003e:90019.
- [R14] B. De Schutter, Review of “Asymptotic height optimization for topical IFS, Tetris heaps, and the finiteness conjecture” (by T. Bousch and J. Mairesse, *Journal of the American Mathematical Society*, vol. 15, no. 1, pp. 77–111, Sept. 2001), *Mathematical Reviews*, 2002. Review 2002j:49008.
- [R15] B. De Schutter, Review of “Dynamical consistency in hierarchical supervisory control” (by P. Hubbard and P.E. Caines, *IEEE Transactions on Automatic Control*, vol. 47, no. 1, pp. 37–52, Jan. 2002), *Mathematical Reviews*, 2002. Review 2002k:93049.
- [R16] B. De Schutter, Review of *Introduction to Discrete Event Systems* (by C.G. Cassandras and S. Lafortune, Boston, Massachusetts: Kluwer Academic Publishers, 1999), *Mathematical Reviews*, 2002. Review 2002f:93002.
- [R17] B. De Schutter, Review of “Equation with residuated functions” (by R.A. Cuninghame-Green and K. Zimmermann, *Commentationes Mathematicae Universitatis Carolinae*, vol. 42, no. 4, pp. 729–740, 2001), *Mathematical Reviews*, 2002. Review 2002j:93058.
- [R18] B. De Schutter, Review of “Synthesis of supervisors using learning algorithm of regular languages” (by K. Hiraishi, *Discrete Event Dynamic Systems: Theory and Applications*, vol. 11, no. 3, pp. 211–234, 2001), *Mathematical Reviews*, 2002. Review 2002c:93102.
- [R19] B. De Schutter, Review of “Towards a (max,+) control theory for public transportation networks” (by B. Heidergott and R. de Vries, *Discrete Event Dynamic Systems: Theory and Applications*, vol. 11, no. 4, pp. 371–398, Oct. 2001), *Mathematical Reviews*, 2002. Review 2002f:93074.
- [R20] B. De Schutter, Review of “Towards online computation of information state controllers” (by M.R. James, in *Perspectives in robust control* (S.O.R. Moheimani, ed.), vol. 268 of *Lecture Notes in Control and Information Sciences*, ch. 11, pp. 175–185, London: Springer, 2001), *Mathematical Reviews*, 2002. Review 2002a:93044.
- [R21] B. De Schutter, Review of “Transience bounds for long walks” (by M. Hartmann and C. Arguelles, *Mathematics of Operations Research*, vol. 24, no. 2, pp. 414–439, May 1999), *Mathematical Reviews*, 2002. Review 2002h:93070.
- [R22] B. De Schutter, Review of “Between mathematical programming and systems theory: Linear complementarity systems” (by H. Schumacher, in *Advances in Mathematical Systems Theory* (F. Colomnius, F. Wirth, U. Helmke, and D. Pratzel-Wolters, eds.), ch. 11, pp. 185–219, Boston, Massachusetts: Birkhäuser, 2000), *Mathematical Reviews*, 2001. Review 2001i:93008.
- [R23] B. De Schutter, Review of “Cycle times assignment of nonlinear discrete event dynamic systems” (by W. Chen, *Systems Science and Mathematical Sciences*, vol. 13, no. 2, pp. 213–218, Apr. 2000), *Mathematical Reviews*, 2001. Review 2001c:93062.
- [R24] B. De Schutter, Review of “Masked prioritized synchronization for interaction and control of discrete event systems” (by R. Kumar and M. Heymann, *IEEE Transactions on Automatic Control*, vol. 45, no. 11, pp. 1970–1982, Nov. 2000), *Mathematical Reviews*, 2001. Review 2001j:93069.

- [R25] B. De Schutter, Review of “Max-plus algebra and mathematical fear in dynamic optimization” (by P. Bernhard, *Set-Valued Analysis*, vol. 8, no. 1–2, pp. 71–84, 2000), *Mathematical Reviews*, 2001. Review 2001g:49045.
- [R26] B. De Schutter, Review of “Projected dynamical systems in a complementarity formalism” (by W.P.M.H. Heemels, J.M. Schumacher, and S. Weiland, *Operations Research Letters*, vol. 27, no. 2, pp. 83–91, 2000), *Mathematical Reviews*, 2001. Review 2001g:93012.
- [R27] B. De Schutter, Review of “A constructive fixed point theorem for min-max functions” (by J. Cochet-Terrasson, S. Gaubert, and J. Gunawardena, *Dynamics and Stability of Systems*, vol. 14, no. 4, pp. 407–433, 1999), *Mathematical Reviews*, 2000. Review 2000m:47077.
- [R28] B. De Schutter, Review of “An optimal control theory for discrete event systems” (by R. Sengupta and S. Lafortune, *SIAM Journal on Control and Optimization*, vol. 36, no. 2, pp. 488–541, Mar. 1998), *Mathematical Reviews*, 2000. Review 2000j:93070.
- [R29] B. De Schutter, Review of “Controllability in the max-algebra” (by J.M. Prou and E. Wagneur, *Kybernetika*, vol. 35, no. 1, pp. 13–24, 1999), *Mathematical Reviews*, 2000. Review 2000f:93060.
- [R30] B. De Schutter, Review of “Discrete event systems: The state of the art and new directions” (by C.G. Cassandras and S. Lafortune, in *Applied and Computational Control, Signals, and Circuits, Volume 1* (B. Datta, ed.), ch. 11, pp. 1–65, Boston, Massachusetts: Birkhäuser, 1999), *Mathematical Reviews*, 2000. Review 2000f:93057.
- [R31] B. De Schutter, Review of “Modular control and coordination of discrete-event systems dynamic systems using calculus of variations techniques” (by K.C. Wong and W.M. Wonham, *Discrete Event Dynamic Systems: Theory and Applications*, vol. 8, no. 3, pp. 247–297, 1998), *Mathematical Reviews*, 2000. Review 2000b:93055.
- [R32] B. De Schutter, Review of “Performance optimization of a class of discrete event dynamic systems using calculus of variations techniques” (by D.L. Pepyne and C.G. Cassandras, *Journal of Optimization Theory and Applications*, vol. 100, no. 3, pp. 599–622, Mar. 1999), *Mathematical Reviews*, 2000. Review 2000a:93069.
- [R33] B. De Schutter, Review of “Reachability and observability of linear systems over max-plus” (by M.J. Gazarik and E.W. Kamen, *Kybernetika*, vol. 35, no. 1, pp. 2–12, 1999), *Mathematical Reviews*, 2000. Review 2000f:93058.
- [R34] B. De Schutter, Review of “A method for the synthesis of controllers to handle safety, liveness, and real-time constraints” (by M. Barbeau, F. Kabanza, and R. St.-Denis, *IEEE Transactions on Automatic Control*, vol. 43, no. 11, Nov. 1998, pp. 1543–1559), *Mathematical Reviews*, 1999. Review 99h:93065.
- [R35] B. De Schutter, Review of “On the analyticity properties of infeasible-interior-point paths for monotone linear complementarity problems” (by J. Stoer and M. Wechs, *Numerische Mathematik*, vol. 81, pp. 631–645, 1999), *Mathematical Reviews*, 1999. Review 99m:90146.
- [R36] B. De Schutter, Review of “Supremum operators and computation of supremal elements in system theory” (by S. Hashtrudi Zad, R.H. Kwong, and W.M. Wonham, *SIAM Journal on Control and Optimization*, vol. 37, no. 3, pp. 695–709, 1999), *Mathematical Reviews*, 1999. Review 99m:93046.
- [R37] B. De Schutter, Review of “Analyse de systèmes min-max” (by G.J. Olsder, *Recherche Opérationnelle/Operations Research*, vol. 30, no. 1, 1996, pp. 17–30), *Mathematical Reviews*, 1997. Review 97d:93022.
- [R38] B. De Schutter, Review of “Analysis of stochastic min-max-plus systems: Results and conjectures” (by A. Jean-Marie and G.J. Olsder, *Mathematical and Computer Modelling*, vol. 23, no. 11/12, 1996, pp. 175–189), *Mathematical Reviews*, 1997. Review 97d:93023.
- [R39] B. De Schutter, Review of “Centralized and decentralized supervisory control of nondeterministic systems under partial observation” (by R. Kumar and M.A. Shayman, *SIAM Journal on Control and Optimization*, vol. 35, no. 2, Mar. 1997, pp. 363–383), *Mathematical Reviews*, 1997. Review 97k:93042.



- [R40] B. De Schutter, Review of “Max-plus algebra and applications to system theory and optimal control” (by Max-Plus Working Group, *Proceedings of the International Congress of Mathematicians*, Zürich, Switzerland, 1994, pp. 1511–1522), *Mathematical Reviews*, 1997. Review 97d:93021.
- [R41] B. De Schutter, Review of “On asymptotically efficient solutions for a class of supervisory control problems” (by R.S. Sreenivas, *IEEE Transactions on Automatic Control*, vol. 41, no. 12, Dec. 1996, pp. 1736–1750), *Mathematical Reviews*, 1997. Review 97h:93048.
- [R42] B. De Schutter, Review of “The generalized linear complementarity problem revisited” (by S.R. Mohan, S.K. Neogy, and R. Sridhar, *Mathematical Programming*, vol. 74, 1996, pp. 197–218), *Mathematical Reviews*, 1997. Review 97e:90100.
- [R43] B. De Schutter, Review of “The primal Douglas-Rachford splitting algorithm for a class of monotone mappings with application to the traffic equilibrium problem” (by M. Fukushima, *Mathematical Programming*, vol. 72, 1996, pp. 1–15), *Mathematical Reviews*, 1997. Review 97b:90114.
- [R44] B. De Schutter, Review of “Fully decentralized solutions of supervisory control problems” (by P. Kozák and W.M. Wonham, *IEEE Transactions on Automatic Control*, vol. 40, no. 12, Dec. 1995, pp. 2094–2097), *Mathematical Reviews*, 1996. Review 96h:93051.
- [R45] B. De Schutter, Review of “Superfluous matrices in linear complementarity” (by R. Sridhar, *Mathematical Programming*, vol. 71, 1995, pp. 195–206), *Mathematical Reviews*, 1996. Review 96k:90089.

### 13 Technical reports

- [T1] F. Alavi, E. Park Lee, N. van de Wouw, B. De Schutter, and Z. Lukszo, “Fuel cell cars in a microgrid for synergies between hydrogen and electricity networks – Addendum,” Tech. rep. 16-008a, Delft Center for Systems and Control, Delft University of Technology, Delft, The Netherlands, Apr. 2016.
- [T2] R. Luo, R. Bourdais, T.J.J. van den Boom, and B. De Schutter, “Properties of applying a resource allocation coordination algorithm to optimization problems with discrete decision variables,” Tech. rep. 15-025, Delft Center for Systems and Control, Delft University of Technology, Delft, The Netherlands, Sept. 2015.
- [T3] A. Jamshidnejad and B. De Schutter, “Estimation of the generalized traffic average speed based on microscopic measurements: Addendum,” Tech. rep. 14-013, Delft Center for Systems and Control, Delft University of Technology, Delft, The Netherlands, Oct. 2014.
- [T4] P. Giselsson, M.D. Doan, T. Keviczky, B. De Schutter, and A. Rantzer, “A distributed optimization algorithm with convergence rate  $O(\frac{1}{k^2})$  for distributed model predictive control,” Tech. rep. 12-011, Delft Center for Systems and Control, Delft University of Technology, Delft, The Netherlands, Mar. 2012.
- [T5] M.D. Doan, T. Keviczky, and B. De Schutter, “A distributed optimization-based approach for hierarchical model predictive control of large-scale systems with coupled dynamics and constraints: Extended report,” Tech. rep. 11-039, Delft Center for Systems and Control, Delft University of Technology, Delft, The Netherlands, 8 pp., Aug. 2011. A short version of this paper has been published in the *Proceedings of the 2011 50th IEEE Conference on Decision and Control and European Control Conference (CDC-ECC)*, Orlando, Florida, pp. 5236–5241, Dec. 2011.
- [T6] J. van Ast, R. Babuška, and B. De Schutter, “Self-organizing moving agents: A survey,” Tech. rep. 07-021, Delft Center for Systems and Control, Delft University of Technology, Delft, The Netherlands, 42 pp., May 2007.
- [T7] A. Tarău, B. De Schutter, and J. Hellendoorn, “Multi-agent control of large-scale transportation systems: A survey,” Tech. rep. 07-016, Delft Center for Systems and Control, Delft University of Technology, Delft, The Netherlands, 51 pp., Mar. 2007.
- [T8] L.D. Baskar, B. De Schutter, H. Hellendoorn, Z. Papp, and T.J.J. van den Boom, “Hierarchical traffic control and management with intelligent vehicles: A survey,” Tech. rep. 06-040, Delft Center for Systems and Control, Delft University of Technology, Delft, The Netherlands, 73 pp., Feb. 2007.

- [T9] T.J.J. van den Boom, B. Heidergott, and B. De Schutter, “Complexity reduction in MPC for stochastic max-plus-linear discrete event systems by variability expansion: Extended report,” Tech. rep. CSE02-016a, Control Systems Engineering, Fac. of Information Technology and Systems, Delft University of Technology, Delft, The Netherlands, 18 pp., Dec. 2006. A short version of this report has been published in *Automatica*, vol. 43, no. 6, pp. 1058–1063, June 2007.
- [T10] R. Babuška, L. Buşoniu, and B. De Schutter, “Reinforcement learning for multi-agent systems,” Tech. rep. 06-041, Delft Center for Systems and Control, Delft University of Technology, 7 pp., July 2006. Paper for a keynote presentation at the *11th IEEE International Conference on Emerging Technologies and Factory Automation (ETFA 2006)*, Prague, Czech Republic, Sept. 2006.
- [T11] I. Necoara, T.J.J. van den Boom, B. De Schutter, and J. Hellendoorn, “Stabilization of max-plus-linear systems using receding horizon control: The unconstrained case – Extended report,” Tech. rep. 06-007a, Delft Center for Systems and Control, Delft University of Technology, Delft, The Netherlands, 16 pp., Apr. 2006. A short version of this report has been published in the *Proceedings of the 2nd IFAC Conference on Analysis and Design of Hybrid Systems (ADHS’06)*, Alghero, Italy, pp. 148-153, June 2006.
- [T12] Zs. Lendek, R. Babuška, and B. De Schutter, “State estimation under uncertainty: A survey,” Tech. rep. 06-004, Delft Center for Systems and Control, Delft University of Technology, Delft, The Netherlands, 65 pp., Feb. 2006.
- [T13] L. Buşoniu, B. De Schutter, and R. Babuška, “Learning and coordination in dynamic multiagent systems,” Tech. rep. 05-019, Delft Center for Systems and Control, Delft University of Technology, Delft, The Netherlands, 98 pp., Oct. 2005.
- [T14] I. Necoara, B. De Schutter, T.J.J. van den Boom, and J. Hellendoorn, “Robustly stabilizing MPC for perturbed PWA systems: Extended report,” Tech. rep. 05-004a, Delft Center for Systems and Control, Delft University of Technology, Delft, The Netherlands, 6 pp., Feb. 2005. A short version of this paper has been published in the *Proceedings of the 44th IEEE Conference on Decision and Control, and the European Control Conference 2005 (CDC-ECC’05)*, Seville, Spain, pp. 3759–3764, Dec. 2005.
- [T15] R.R. Negenborn, B. De Schutter, and J. Hellendoorn, “Multi-agent model predictive control: A survey,” Tech. rep. 04-010, Delft Center for Systems and Control, Delft University of Technology, Delft, The Netherlands, 23 pp., Dec. 2004.
- [T16] I. Necoara, B. De Schutter, W.P.M.H. Heemels, S. Weiland, M. Lazar, and T.J.J. van den Boom, “Control of PWA systems using a stable receding horizon method: Extended report,” Tech. rep. 04-019a, Delft Center for Systems and Control, Delft University of Technology, Delft, The Netherlands, 26 pp., Oct. 2004. A short version of this report has been published in the *Proceedings of the 16th IFAC World Congress*, Prague, Czech Republic, July 2005. Paper 2794/Tu-E21-TO/2.
- [T17] B. De Schutter and T.J.J. van den Boom, “MPC for continuous piecewise-affine systems – Addendum,” Tech. rep. CSE02-004a, Control Systems Engineering, Fac. of Information Technology and Systems, Delft University of Technology, Delft, The Netherlands, 9 pp., Oct. 2003.
- [T18] B. De Schutter and T.J.J. van den Boom, “Model predictive control for discrete-event and hybrid systems,” Tech. rep. 03-012, Delft Center for Systems and Control, Delft University of Technology, Delft, The Netherlands, 16 pp., Aug. 2003. Paper for the *Workshop on Nonlinear Predictive Control (Workshop S-5)* at the 42nd IEEE Conference on Decision and Control, Maui, Hawaii, Dec. 2003.
- [T19] A. Hegyi, B. De Schutter, and J. Hellendoorn, “Optimal coordination of variable speed limits to suppress shock waves – Addendum,” Tech. rep. CSE02-015a, Control Systems Engineering, Fac. of Information Technology and Systems, Delft University of Technology, Delft, The Netherlands, 4 pp., Mar. 2003.
- [T20] B. De Schutter and T. van den Boom, “Model predictive control for max-plus-linear discrete-event systems: Extended report & Addendum,” Tech. rep. bds:99-10a, Control Systems Engineering, Fac. of Information Technology and Systems, Delft University of Technology, Delft, The Netherlands, 27 pp., Nov. 2000. A short version of this report has been published in *Automatica*, vol. 37, no. 7, pp. 1049–1056, July 2001.

- [T21] B. De Schutter and T. van den Boom, “On model predictive control for max-min-plus-scaling discrete event systems,” Tech. rep. bds:00-04, Control Systems Engineering, Fac. of Information Technology and Systems, Delft University of Technology, Delft, The Netherlands, 19 pp., June 2000.
- [T22] B. De Schutter, “Optimal control of a class of linear hybrid systems with saturation: Addendum,” Tech. rep. bds:99-03a, Control Systems Engineering, Fac. of Information Technology and Systems, Delft University of Technology, Delft, The Netherlands, 8 pp., Oct. 1999.
- [T23] B. De Schutter, “Upper bounds for the index of cyclicity of a matrix,” Tech. rep. 98-32, ESAT-SISTA, K.U.Leuven, Leuven, Belgium, 16 pp., July 1999. Revised version.
- [T24] B. De Schutter and B. De Moor, “Optimal traffic light control for a single intersection: Addendum,” Tech. rep. 96-90a, ESAT-SISTA, K.U.Leuven, Leuven, Belgium, 19 pp., Jan. 1998.
- [T25] B. De Schutter, R. de Vries, and G.J. Olsder, “The minimal realization problem in the max-plus algebra: An overview,” Tech. rep. 97-107, ESAT-SISTA, K.U.Leuven, Leuven, Belgium, 7 pp., Dec. 1997.
- [T26] R. de Vries, B. De Schutter, and B. De Moor, “Minimal realizations and state space transformations in the symmetrized max-algebra,” Tech. rep. 97-84, ESAT-SISTA, K.U.Leuven, Leuven, Belgium, 21 pp., Dec. 1997.
- [T27] B. De Schutter, V. Blondel, R. de Vries, and B. De Moor, “On the boolean minimal realization problem in the max-plus algebra: Addendum,” Tech. rep. 97-68a, ESAT-SISTA, K.U.Leuven, Leuven, Belgium, 5 pp., Dec. 1997.
- [T28] T. Van Gestel, K. De Cock, R. Jans, B. De Schutter, Z. Degraeve, and B. De Moor, “Discrete stochastic modelling of ATM-traffic with circulant transition matrices: A time domain approach,” Tech. rep. 97-108, ESAT-SISTA, K.U.Leuven, Leuven, Belgium, 15 pp., Nov. 1997.
- [T29] B. De Schutter and B. De Moor, “On state space realizations of impulse responses of max-linear systems,” Tech. rep. 95-13, ESAT-SISTA, K.U.Leuven, Leuven, Belgium, 16 pp., Mar. 1995.
- [T30] B. De Schutter and B. De Moor, “The singular value decomposition in the extended max algebra is an extended linear complementarity problem,” Tech. rep. 95-07, ESAT-SISTA, K.U.Leuven, Leuven, Belgium, 27 pp., Mar. 1995.
- [T31] B. De Schutter and B. De Moor, “The singular value decomposition and the QR decomposition in the extended max algebra,” Tech. rep. 95-06, ESAT-SISTA, K.U.Leuven, Leuven, Belgium, 27 pp., Mar. 1995.
- [T32] B. De Schutter and B. De Moor, “The extended linear complementarity problem,” Tech. rep. 94-48, ESAT-SISTA, K.U.Leuven, Leuven, Belgium, 11 pp., Aug. 1994. Presented at the *6th International Congress on Computational and Applied Mathematics (ICCAM 94)*, Leuven, Belgium, July 1994.
- [T33] B. De Schutter and B. De Moor, “Minimal realization in the max algebra,” Tech. rep. 94-29, ESAT-SISTA, K.U.Leuven, Leuven, Belgium, 29 pp., May 1994.
- [T34] B. De Schutter and B. De Moor, “Minimal realization in the max algebra is an extended linear complementarity problem,” Tech. rep. 93-70, ESAT-SISTA, K.U.Leuven, Leuven, Belgium, 18 pp., Dec. 1993.
- [T35] B. De Schutter and B. De Moor, “Minimal state space realization of SISO systems in the max algebra,” Tech. rep. 93-57, ESAT-SISTA, K.U.Leuven, Leuven, Belgium, 31 pp., Oct. 1993.

## 14 Other publications

- [Z1] Y. Wang, I. Papamichail, B. De Schutter, and D. Wang, “Editorial on advanced road traffic control,” *Transportation Research Part C*, vol. 58, pp. 429–430, Sept. 2015.
- [Z2] A. Hegyi and B. De Schutter, “Introduction to the special issue on the 16th IEEE International Conference on Intelligent Transportation Systems (ITSC’13),” *IEEE Transactions on Intelligent Transportation Systems*, vol. 16, no. 1, pp. 417–418, Feb. 2015.
- [Z3] W.P.M.H. Heemels and B. De Schutter, “Special issue on analysis and design of hybrid and networked control systems,” *Nonlinear Analysis: Hybrid Systems*, vol. 10, pp. 1–3, Nov. 2013.

- [Z4] B. De Schutter and R. Scattolini, "Introduction to the special issue on hierarchical and distributed model predictive control," *Journal of Process Control*, vol. 21, no. 5, pp. 683–684, June 2011.
- [Z5] Zs. Lendek, J. Lauber, T.M. Guerra, R. Babuška, and B. De Schutter, "Erratum to "Adaptive observers for TS fuzzy systems with unknown polynomial inputs" [Fuzzy Sets and Systems 161 (2010) 2043–2065]," *Fuzzy Sets and Systems*, vol. 171, no. 1, pp. 106–107, May 2011.
- [Z6] B. De Schutter and S.E. Shladover, "Introduction to the special section on IV'08," *IEEE Transactions on Intelligent Transportation Systems*, vol. 10, no. 4, pp. 557–559, Dec. 2009.
- [Z7] B. De Schutter and A. Hegyi, "Introduction to the special section on ITSC '05," *IEEE Transactions on Intelligent Transportation Systems*, vol. 8, no. 1, pp. 1–3, Mar. 2007.
- [Z8] B. De Schutter, "Stability Analysis of Discrete Event Systems (by K.M. Passino and K.L. Burgess, A volume in the *Wiley Series on Adaptive and Learning Systems for Signal Processing, Communications, and Control* (S. Haykin, ed.), New York: John Wiley & Sons, 1998)," *Automatica*, vol. 37, no. 5, pp. 799–801, May 2001. Book review.