

PREHL'AD PUBLIKAČNEJ ČINNOSTI

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Monografia vo svet. jazyku a kapitoly v monografiách (6)

AAA – Vedecké monografie vydané v zahraničných vydavateľstvách (2)

1. **Kvasnica, M.** [100%]: Real-Time Model Predictive Control via Multi-Parametric Programming: Theory and Tools, VDM Verlag, Saarbruecken, 2009, 263 s. ISBN 9783639206449 (**11 AH, citácie: 70**)
2. Klaučo, M. [75%] – **Kvasnica, M.** [25%]: MPC-Based Reference Governors, Editor(i): M. J. Grimble, A. Ferrara, Springer, 2019. 149 s. ISBN 978-3-030-17404-0 (**7 AH**)

ABC – Kapitoly vo vedeckých monografiách vydané v zahraničných vydavateľstvách (2)

3. Bemporad, A. [20%] – Di Cairano, S. [16%] – Ferrari-Trecate, G. [16%] – **Kvasnica, M.** [16%] – Morari, M. [16%] – Paoletti, S. [16%]: Tools for modeling, simulation, control, and verification of piecewise affine systems, In Handbook of Hybrid Systems Control: Theory, Tools, Applications, Editor(s): J. Lunze, F. Lamnabhi-Lagarrigue, Cambridge University Press, pp. 297–324, 2009. ISBN 978-0-521-76505-3 (**1 AH**)
4. **Kvasnica, M.** [40%] – Jones, C. [20%] – Pejčic, I. [15%] – Holaza, J. [5%] – Korda, M. [15%] – Bakaráč, P. [5%]: Real-Time Implementation of Explicit Model Predictive Control, V Handbook of Model Predictive Control, Editor(i): Sasa V. Rakovic, William S. Levine, Birkhauser, str. 387–412, 2018. ISBN: 978-3-319-77488-6 (**1 AH**)

ABD – Kapitoly vo vedeckých monografiách vydané v domácich vydavateľstvách (2)

5. **Kvasnica, M.** [100%]: Multi-Parametric Toolbox, In Selected Topics on Constrained and Nonlinear Control. Workbook, STU Bratislava - NTNU Trondheim, pp. 101–170, 2011. ISBN 978–80–968627–3–3 (**3 AH**)
6. **Kvasnica, M.** [40%] – Fikar, M. [10%] – Čirka, Ľ. [40%] – Herceg, M. [10%]: Complexity Reduction in Explicit Model Predictive Control, In Selected Topics on Constrained and Nonlinear Control. Textbook, STU Bratislava - NTNU Trondheim, pp. 241–288, 2011. ISBN 978–80–968627–4–0 (**2 AH**)

Článok v časopise registrovanom v CC (26)

ADC – Vedecké práce v zahraničných karentovaných časopisoch (24)

1. Jiang, Y. [25%] – Oravec, J. [25%] – Houska, B. [25%] – **Kvasnica, M.** [25%]: Parallel MPC for Linear Systems with Input Constraints. IEEE Transactions on Automatic Control, str. 1–8, 2020. DOI: 10.1109/TAC.2020.3020827, ISSN: 00189286. **IF: 5.625, Q1**
2. Theunissen, J. [15%] – Sorniotti, A. [15%] – Gruber, P. [15%] – Fallah, S. [15%] – Ricco, M. [15%] – **Kvasnica, M.** [15%] – Dhaens, M. [10%]: Regionless Explicit Model Predictive Control of Active Suspension Systems With Preview. IEEE Transactions on Industrial Electronics, č. 6, zv. 67, str. 4877–4888, 2020. ISSN: 0278-0046. **IF: 7.515, Q1**
3. Oravec, J. [50%] – Holaza, J. [10%] – Horváthová, M. [15%] – Nguyen, N. A. [5%] – **Kvasnica, M.** [10%] – Bakošová, M. [10%]: Convex-lifting-based robust control design using the tunable robust invariant sets. European Journal of Control, zv. 49, str. 44–52, 2019. ISSN: 0947-3580. **IF: 1.540, Q1**
4. **Kvasnica, M.** [70%] – Bakaráč, P. [10%] – Klaučo, M. [20%]: Complexity reduction in explicit MPC: A reachability approach. Systems & Control Letters, zv. 124, str. 19–26, 2019. ISSN: 0167-6911. **IF: 2.762, Q1**
5. Klaučo, M. [40%] – Kalúz, M. [20%] – **Kvasnica, M.** [40%]: Machine learning-based warm starting of active set methods in embedded model predictive control. Engineering Applications of Artificial Intelligence, zv. 77, str. 1–8, 2019. ISSN: 0952-1976. **IF: 4.201, Q1**
6. Števek, J. [25%] – **Kvasnica, M.** [25%] – Fikar, M. [25%] – Gomola, A. [25%]: A Parametric Programming Approach to Automated Integrated Circuit Design. IEEE Transactions on Control Systems Technology, č. 4, zv. 26, str. 1180–1191, 2018. ISSN: 1063-6536. **IF: 5.312, Q1**

7. Drgoňa, J. [25%] – Picard, D. [25%] – **Kvasnica, M.** [25%] – Helsen, L. [25%]: Approximate model predictive building control via machine learning. *Applied Energy*, zv. 218, str. 199–216, 2018. ISSN: 0306-2619 **IF: 8.558, Q1**
8. Holaza, J. [45%] – Klaučo, M. [15%] – Drgoňa, J. [5%] – Oravec, J. [15%] – **Kvasnica, M.** [15%] – Fikar, M. [5%]: MPC-Based Reference Governor Control of a Continuous Stirred-Tank Reactor. *Computers & Chemical Engineering*, zv. 108, str. 289–299, 2018. ISSN: 0098-1354. **IF: 4.000, Q1**
9. Picard, D. [40%] – Drgoňa, J. [40%] – **Kvasnica, M.** [10%] – Helsen, L. [10%]: Impact of the controller model complexity on model predictive control performance for buildings. *Energy and Buildings*, str. 739–751, 2017. ISSN: 0378-7788. **IF: 4.867, Q1**
10. Nguyen, A. [25%] – Olaru, S. [25%] – Rodriguez-Ayerbe, P. [25%] – **Kvasnica, M.** [25%]: Convex liftings-based robust control design. *Automatica*, č. Marec 2017, zv. 77, str. 206–213, 2017. ISSN: 0005-1098. **IF: 5.541, Q1**
11. Klaučo, M. [34%] – Kalúz, M. [33%] – **Kvasnica, M.** [33%]: Real-time implementation of an explicit MPC-based reference governor for control of a magnetic levitation system. *Control Engineering Practice*, č. 60, str. 99–105, 2017. ISSN: 0967-0661, **IF: 1.830, Q1**
12. Oravec, J. [25%] – Klaučo, M. [25%] – **Kvasnica, M.** [25%] – Loeffberg, J. [25%]: Computationally Tractable Formulations for Optimal Path Planning with Interception of Targets' Neighbourhoods. *Journal of Guidance, Control, and Dynamics*, 2017 (*akceptované*). ISSN 0731-5090, **IF: 1.651, Q1**
13. Drgoňa, J. [32%] – Klaučo, M. [32%] – Janeček, F. [5%] – **Kvasnica, M.** [31%]: Optimal control of a laboratory binary distillation column via regionless explicit MPC. *Computers & Chemical Engineering*, zv. 96, str. 139–148, 2017. ISSN: 0098-1354, **IF: 2.581, Q1**
14. Klaučo, M. [50%] – **Kvasnica, M.** [50%]: Control of a boiler-turbine unit using MPC-based reference governors. *Applied Thermal Engineering*, zv. 110, str. 1437–1447, 2017. ISSN: 1359-4311, **IF: 3.043, Q1**
15. Herceg, M. [25%] – Jones, C. [25%] – **Kvasnica, M.** [25%] – Morari, M. [25%]: Enumeration-based approach to solving parametric linear complementarity problems. *Automatica*, č. 62, str. 243–248, 2015. ISSN: 0005-1098. **IF: 5.541, Q1**
16. Cseko, L. [40%] – **Kvasnica, M.** [40%] – Lantos, B. [20%]: Explicit MPC-Based RBF Neural Network Controller Design With Discrete-Time Actual Kalman Filter for Semiactive Suspension. *IEEE Transactions on Control Systems Technology*, č. 5, zv. 23, str. 1736–1753, 2015. ISSN: 1063-6536, **IF: 2.818, Q1**
17. Honek, M. [30%] – **Kvasnica, M.** [30%] – Szűcs, A. [10%] – Šimončič, P. [10%] – Fikar, M. [10%] – Rohal-Ilkiv, B. [10%]: A low-complexity explicit MPC controller for AFR control. *Control Engineering Practice*, č. 42, str. 118–127, 2015. ISSN: 0967-0661, **IF: 1.830, Q1**
18. Holaza, J. [30%] – Takács, B. [30%] – **Kvasnica, M.** [30%] – Di Cairano, S. [10%]: Nearly optimal simple explicit MPC controllers with stability and feasibility guarantees. *Optimal Control Applications and Methods*, č. 6, zv. 35, 2015. ISSN: 1099-1514, **IF: 1.097, Q2**
19. Beccuti, A. [25%] – **Kvasnica, M.** [25%] – Papafotiou, G. [25%] – Morari, M. [25%]: A Decentralized Explicit Predictive Control Paradigm for Parallelized DC-DC Circuits. *IEEE Transactions on Control Systems Technology*, č. 1, zv. 21, str. 136–148, 2013. ISSN: 1063-6536, **IF: 2.818, Q1**
20. **Kvasnica, M.** [50%] – Hledík, J. [20%] – Rauová, I. [10%] – Fikar, M. [20%]: Complexity reduction of explicit model predictive control via separation. *Automatica*, č. 6, zv. 49, str. 1776–1781, 2013. ISSN: 0005-1098, **IF: 5.541, Q1**
21. **Kvasnica, M.** [80%] – Fikar, M. [20%]: Clipping-Based Complexity Reduction in Explicit MPC. *IEEE Transactions on Automatic Control*, č. 7, zv. 57, str. 1878–1883, 2012. ISSN: 0018-9286, **IF: 5.625, Q1**
22. **Kvasnica, M.** [60%] – J. Lofberg [20%] – M. Fikar [20%]: Stabilizing Polynomial Approximation of Explicit MPC. *Automatica*, no. 10, vol. 47, pp. 2292–2297, 2011. ISSN: 0005-1098, **IF: 5.541, Q1**
23. Herceg, M. [40%] – **Kvasnica, M.** [30%] – Fikar, M. [30%]: Minimum-time predictive control of a servo engine with deadzone. *Control Engineering Practice*, no. 11, vol. 17, pp. 1349–1357, 2009. ISSN: 0967-0661, **IF: 1.830, Q1**
24. Grieder, P. [25%] – **Kvasnica, M.** [25%] – Baotic, M. [25%] – Morari, M. [25%]: Stabilizing low complexity feedback control of constrained piecewise affine systems. *Automatica*, vol. 41, issue 10, pp. 1683–1694, 2005. ISSN: 0005-1098, **IF: 5.541, Q1**

ADD – Vedecké práce v domácich karentovaných časopisoch (1)

25. Bakaráč, P. [50%] – **Kvasnica, M.** [50%]: Approximate explicit robust model predictive control of a CSTR with fast reactions. *Chemical papers*, č. 3, zv. 73, str. 611–618, 2019. ISSN: 1336-9075, **IF: 1.680, Q2**
26. **Kvasnica, M.** [70%] – Herceg, M. [10%] – Čirka, L. [10%] – Fikar, M. [10%]: Model predictive control of a CSTR: A hybrid modeling approach. *Chemical papers*, no. 3, vol. 64, pp. 301–309, 2010. ISSN: 0366-6352, **IF: 1.680, Q2**

Článok v inom recenzovanom časopise (8)

ADE – Vedecké práce v zahraničných nekarentovaných časopisoch (2)

1. Cseko, L. [34%] – **Kvasnica, M.** [33%] – Lantos, B. [33%]: Analysis of the explicit model predictive control for semi-active suspension. *Periodica Polytechnica*, č. 1-2, zv. 54, str. 41–58, 2010. ISSN: 1587-3781
2. Števek, J. [30%] – Szűcs, A. [30%] – **Kvasnica, M.** [15%] – Fikar, M. [15%] – Kozák, Š. [10%]: Two steps piecewise affine identification of nonlinear systems. *Archives of Control Sciences*, č. 4, zv. 22, str. 371–388, 2012. ISSN: 1230-2384

ADF – Vedecké práce v domácich nekarentovaných časopisoch (5)

3. Furka, M. [80%] – Klaučo, M. [10%] – **Kvasnica, M.** [10%]: Stabilization of Furuta Pendulum using Nonlinear MPC. *Research Papers Faculty of Materials Science and Technology in Trnava*, č. 45, zv. 27, str. 42–48, 2019. ISBN: 1338-0532, ISSN: 1336-1589
4. Rauová, I. [50%] – Valo, R. [30%] – **Kvasnica, M.** [10%] – Fikar, M. [10%]: Real-Time Implementation of Explicit MPC Using PLC. *AT&P Journal Plus*, no. 2, pp. 67–72, 2011. ISSN 1336-5010
5. Herceg, M. [40%] – **Kvasnica, M.** [30%] – Fikar, M. [20%] – Čirka, L. [10%]: Real-time Control of a Thermo-Optical Device Using Polynomial Approximation of MPC Scheme. *AT&P Journal Plus*, no. 2, pp. 36–42, 2009. ISSN 1336-5010
6. Herceg, M. [25%] – **Kvasnica, M.** [25%] – Čirka, L. [25%] – Fikar, M. [25%]: Real-Time Predictive Control of a Servo Engine. *AT&P Journal*, no. Plus2, pp. 124–130, 2007. ISSN 1336-5010
7. Herceg, M. [34%] – **Kvasnica, M.** [33%] – Fikar, M. [33%]: Stabilizing Predictive Control of Fuzzy Systems Described by Takagi-Sugeno Models. *AT&P Journal*, no. Plus2, pp. 105–111, 2007. ISSN 1336-5010
8. Mikleš, J. [50%] – Čirka, L. [25%] – **Kvasnica, M.** [25%]: Design of a PI LQ controller via static feedback (in Slovak). *AT&P Journal*, no. 10, vol. 7, pp. 54–55, 2000. ISSN 1335-2237

ADM – Vedecké práce v zahraničných časopisoch registrovaných v databázach Web of Science alebo SCOPUS (1)

9. Klaučo, M. [50%] – Blažek, S. [10%] – **Kvasnica, M.** [40%]: An Optimal Path Planning Problem for Heterogeneous Multi-Vehicle Systems. *International Journal of Applied Mathematics and Computer Science*, č. 2, zv. 26, str. 297–308, 2016. ISSN 2083-8492, **IF: 1.037**

ADN – Vedecké práce v domácich časopisoch registrovaných v databázach Web of Science alebo SCOPUS (1)

10. Bakaráč, P. [30%] – Kvasnica, M. [70%]: Fast nonlinear model predictive control of a chemical reactor: a random shooting approach. *Acta Chimica Slovaca*, č. 2, zv. 11, str. 175–181, 2018. ISSN: 1337-978X
11. Fedorová, K. [35%] – Bakaráč, P. [35%] – Kvasnica, M. [30%]: Agile Manoeuvres using Model Predictive Control. *Acta Chimica Slovaca*, č. 1, zv. 12, str. 136–141, 2019.

Publikácia v zborníku vo svet. jazyku (96)

AEC – Vedecké práce v zahraničných recenzovaných vedeckých zborníkoch, monografiách (1)

1. Herceg, M. [40%] – **Kvasnica, M.** [30%] – Fikar, M. [30%]: Parametric Approach to Nonlinear Model Predictive Control, In *Nonlinear Model Predictive Control*, Editor(s): Magni, L. and Raimondo, D. M. and Allgoewer, F., Springer Berlin / Heidelberg, pp. 381–389, 2009. ISBN 978-3-642-01093-4

AED – Vedecké práce v domácich recenzovaných vedeckých zborníkoch, monografiách (5)

2. **Kvasnica, M.** [60%] – Rauová, I. [20%] – Fikar, M. [20%]: Separation Functions used in Simplification of Explicit MPC Feedback Laws. In Selected Topics on Constrained and Nonlinear Control. Preprints, STU Bratislava - NTNU Trondheim, pp. 303–308, 2011. ISBN 978–80–968627–2–6
3. **Kvasnica, M.** [60%] – Herceg, M. [10%] – Čirka, L. [20%] – Fikar, M. [10%]: Robust Explicit Time-Optimal Control of PWA Systems with Parametric Uncertainties. In Selected Topics on Constrained and Nonlinear Control. Preprints, STU Bratislava - NTNU Trondheim, pp. 295–300, 2011. ISBN 978–80–968627–2–6
4. **Kvasnica, M.** [60%] – Rauová, I. [30%] – Fikar, M. [10%]: Real-Time Implementation of Model Predictive Control Using Automatic Code Generation. In Selected Topics on Constrained and Nonlinear Control. Preprints, STU Bratislava - NTNU Trondheim, pp. 311–316, 2011. ISBN 978–80–968627–2–6
5. **Kvasnica, M.** [50%] – Herceg, M. [10%] – Čirka, L. [30%] – Fikar, M. [10%]: Explicit Minimum-Time Controllers for Fuzzy Systems. In Selected Topics on Constrained and Nonlinear Control. Preprints, STU Bratislava - NTNU Trondheim, pp. 287–292, 2011. ISBN 978–80–968627–2–6
6. **Kvasnica, M.** [50%] – Szűcs, A. [40%] – Fikar, M. [10%]: Automated Piecewise Affine Approximation of Nonlinear Systems. In Selected Topics on Constrained and Nonlinear Control. Preprints, STU Bratislava - NTNU Trondheim, pp. 319–326, 2011. ISBN 978–80–968627–2–6

AFC – Publikované príspevky na zahraničných vedeckých konferenciách (65)

7. Lu, L. [50%] – **Kvasnica, M.** [50%]: Low-Complexity Stabilizing PWA Controllers for Linear Systems with Parametric Uncertainties. V Preprints of the 21st IFAC World Congress (Virtual), Berlin, Germany, July 12-17, 2020, zv. 21, str. 7376–7381, 2020.
8. Holaza, J. [30%] – Oravec, J. [30%] – **Kvasnica, M.** [10%] – Dyrská, R. [10%] – Mönnigmann, M. [10%] – Fikar, M. [10%]: Accelerating Explicit Model Predictive Control by Constraint Sorting. V Preprints of the 21st IFAC World Congress (Virtual), Berlin, Germany, July 12-17, 2020, zv. 21, str. 11520–11525, 2020.
9. Bakaráč, P. [30%] – Holaza, J. [25%] – Klaučo, M. [10%] – Kalúz, M. [5%] – Löfberg, J. [5%] – **Kvasnica, M.** [25%]: Explicit MPC based on Approximate Dynamic Programming. V European Control Conference 2018, Limassol, Cyprus, str. 1172–1177, 2018. ISBN: 978-3-9524-2699-9
10. Holaza, J. [40%] – Klaučo, M. [30%] – **Kvasnica, M.** [30%]: Solution Techniques for Multi-Layer MPC-Based Control Strategies. V Preprints of the 20th IFAC World Congress, Toulouse, France, zv. 20, 2017
11. Ingole, D. [40%] – **Kvasnica, M.** [30%] – De Silva, H. [15%] – Gustafson, J. [15%]: Reducing Memory Footprints in Explicit Model Predictive Control using Universal Numbers. V Preprints of the 20th IFAC World Congress, Toulouse, France, zv. 20, str. 12100–12105, 2017.
12. Janeček, F. [25%] – Klaučo, M. [25%] – Kalúz, M. [25%] – **Kvasnica, M.** [25%]: OPTIPLAN: A Matlab Toolbox for Model Predictive Control with Obstacle Avoidance. V Preprints of the 20th IFAC World Congress, Toulouse, France, zv. 20, 2017.
13. Oravec, J. [25%] – Jiang, Y. [25%] – Houska, B. [25%] – **Kvasnica, M.** [25%]: Parallel Explicit MPC for Hardware with Limited Memory. V Preprints of the 20th IFAC World Congress, Toulouse, France, zv. 20, str. 3356–3361, 2017.
14. Oravec, J. [60%] – **Kvasnica, M.** [20%] – Bakošová, M. [20%]: Quasi-Non-Symmetric Input and Output Constraints in LMI-based Robust MPC. V Preprints of the 20th IFAC World Congress, Toulouse, France, zv. 20, str. 11829–11834, 2017.
15. Drgoňa, J. [30%] – Janeček, F. [25%] – Klaučo, M. [25%] – **Kvasnica, M.** [20%]: Regionless Explicit MPC of a Distillation Column. V European Control Conference 2016, Aalborg, Denmark, str. 1568–1573, 2016. ISBN 978-1-5090-2590-9
16. Takács, B. [45%] – Števek, J. [5%] – Valo, R. [5%] – **Kvasnica, M.** [45%]: Python Code Generation for Explicit MPC in MPT. V European Control Conference 2016, Aalborg, Denmark, str. 1328–1333, 2016. ISBN 978-1-5090-2590-9
17. Drgoňa, J. [34%] – Klaučo, M. [33%] – **Kvasnica, M.** [33%]: MPC-Based Reference Governors for Thermostatically Controlled Residential Buildings. V 54rd IEEE Conference on Decision and Control, Osaka, Japan, zv. 54, 2015. ISBN 978-1-4799-7885-4
18. **Kvasnica, M.** [70%] – Takács, B. [10%] – Holaza, J. [10%] – Di Cairano, S. [10%]: On Region-Free Explicit Model Predictive Control. V 54rd IEEE Conference on Decision and Control, Osaka, Japan, zv. 54, str. 3669–3674, 2015. ISBN 978-1-4799-7885-4
19. Ingole, D. [70%] – **Kvasnica, M.** [30%]: FPGA Implementation of Explicit Model Predictive Control for Closed Loop Control of Depth of Anesthesia. V Preprints of the 5th IFAC Conference on Nonlinear Model Predictive Control, str. 484–489, 2015. ISBN 9781510819320

20. Oravec, J. [35%] – Klaučo, M. [30%] – **Kvasnica, M.** [30%] – Löfberg, J. [5%]: Optimal Vehicle Routing with Interception of Targets' Neighbourhoods. V European Control Conference 2015, Linz, Austria, str. 2538–2543, 2015. ISBN 978-3-9524269-4-4
21. **Kvasnica, M.** [25%] – Holaza, J. [25%] – Takács, B. [25%] – Ingole, D. [25%]: Design and Verification of Low-Complexity Explicit MPC Controllers in MPT3. V European Control Conference 2015, Linz, Austria, str. 2600–2605, 2015. ISBN 978-3-9524269-4-4
22. Holaza, J. [30%] – Takács, B. [30%] – **Kvasnica, M.** [30%] – Di Cairano, S. [10%]: Safety Verification of Implicitly Defined MPC Feedback Laws. V European Control Conference 2015, Linz, Austria, str. 2552–2557, 2015. ISBN 978-3-9524269-4-4
23. Klaučo, M. [50%] – **Kvasnica, M.** [50%]: Explicit MPC Approach to PMV-Based Thermal Comfort Control. V 53rd IEEE Conference on Decision and Control, Los Angeles, California, USA, zv. 53, str. 4856–4861, 2014. ISBN 978-1-4673-6088-3
24. Števek, J. [70%] – **Kvasnica, M.** [15%] – Fikar, M. [14%] – Vrbický, A. [1%]: An Application of Multi-parametric Programming in Integrated Circuit Automation (Slotting Problem). V Preprints of the 19th IFAC World Congress Cape Town (South Africa) August 24 - August 29, 2014, str. 10275–10280, 2014. ISBN 978-1-63439-456-7
25. Klaučo, M. [40%] – Drgoňa, J. [5%] – **Kvasnica, M.** [50%] – Di Cairano, S. [5%]: Building Temperature Control by Simple MPC-like Feedback Laws Learned from Closed-Loop Data. V Preprints of the 19th IFAC World Congress Cape Town (South Africa) August 24 - August 29, 2014, str. 581–586, 2014. ISBN 978-1-63439-456-7
26. Holaza, J. [34%] – Takács, B. [33%] – **Kvasnica, M.** [33%]: Verification of Performance Bounds for A-Posteriori Quantized Explicit MPC Feedback Laws. V Preprints of the 19th IFAC World Congress Cape Town (South Africa) August 24 - August 29, 2014, str. 1035–1040, 2014. ISBN 978-1-63439-456-7
27. Klaučo, M. [40%] – Blažek, S. [15%] – **Kvasnica, M.** [40%] – Fikar, M. [5%]: Mixed-Integer SOCP Formulation of the Path Planning Problem for Heterogeneous Multi-Vehicle Systems. V European Control Conference 2014, Strasbourg, France, str. 1474–1479, 2014. ISBN 978-3-9524269-2-0
28. Drgoňa, J. [30%] – Kvasnica, M. [30%] – Klaučo, M. [30%] – Fikar, M. [10%]: Explicit Stochastic MPC Approach to Building Temperature Control. V IEEE Conference on Decision and Control, Florence, Italy, str. 6440–6445, 2013
29. Takács, B. [30%] – Holaza, J. [30%] – **Kvasnica, M.** [20%] – Di Cairano, S. [20%]: Nearly-Optimal Simple Explicit MPC Regulators with Recursive Feasibility Guarantees. V IEEE Conference on Decision and Control, Florence, Italy, str. 7089–7094, 2013. ISBN 978-1-4673-5716-6
30. Oravec, J. [25%] – Blažek, S. [25%] – **Kvasnica, M.** [25%] – Di Cairano, S. [25%]: Polygonic Representation of Explicit Model Predictive Control. V IEEE Conference on Decision and Control, Florence, Italy, str. 6422–6427, 2013. ISBN 978-1-4673-5716-6
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103. Klaučo, M. [50%] – **Kvasnica, M.** [50%]: Parametric Optimization with the MPT Toolbox and its Applications in Optimal Control. V 30th European Conference on Operational Research, Dublin, zv. 30, 2019.

104. Bakaráč, P. [50%] – Valiauga, P. [30%] – **Kvasnica, M.** [20%]: Energy-Efficient Swing up and Explicit MPC Stabilization of an Inverted Pendulum. V Preprints of the 6th IFAC Conference on Nonlinear Model Predictive Control, Madison, Wisconsin, USA, 2018.
105. Klaučo, M. [50%] – **Kvasnica, M.** [50%]: Towards On-Line Tunable Explicit MPC Using Interpolation. V Preprints of the 6th IFAC Conference on Nonlinear Model Predictive Control, Madison, Wisconsin, USA, 2018.
106. Picard, D. [40%] – Drgoňa, J. [50%] – Helsen, L. [5%] – **Kvasnica, M.** [5%]: Impact of the controller model complexity on MPC performance evaluation for building climate control. V The European Conference on Computational Optimization, Leuven, Belgium, zv. 4, 2016
107. Ingole, D. [40%] – Drgoňa, J. [20%] – Kalúz, M. [15%] – Klaučo, M. [15%] – Bakošová, M. [5%] – **Kvasnica, M.** [5%]: Explicit Model Predictive Control of a Fuel Cell. V The European Conference on Computational Optimization, Leuven, Belgium, zv. 4, 2016
108. **Kvasnica, M.** [100%]: Implicit vs Explicit MPC — Similarities, Differences and a Path towards a Unified Method. V European Control Conference 2016, Aalborg, Denmark, 2016
109. Takács, B. [30%] – Holaza, J. [30%] – **Kvasnica, M.** [40%]: NLP-based Derivation of Bounded Convex PWA Functions: Application to Complexity Reduction in Explicit MPC. V VOCAL 2012, Program and Abstracts, zv. 5, str. 95–95, 2012
110. Szűcs, A. [40%] – **Kvasnica, M.** [40%] – Števek, J. [10%] – Fikar, M. [10%]: Optimal Fitting of Data by PWA Functions of Fixed Complexity. Editor(i): P. Varbanov, H. L. Lam, A. Nemet, J. Klemeš, V Proceedings of the International CAPE Forum 2012, Press of the University of Pannonia, str. 46–46, 2012
111. **Kvasnica, M.** [40%] – Szűcs, A. [40%] – Fikar, M. [20%]: Optimization-Based Automatic Derivation of Hybrid Approximations. In VOCAL 2010, Program and Abstracts, pp. 55–55, 2010.
112. **Kvasnica, M.** [97%] – Grieder, P. [1%] – Baotic, M. [1%] – Morari, M. [1%]: Multi-Parametric Toolbox 2.6.2. In Proceedings of the 10th International Conference on Hybrid Systems: Computation and control, Pisa, Italy, 2007. Publikované na CD-ROM. ISBN 978-3-540-71492-7 (**poster**)

AFG – Abstrakty príspevkov z domácich konferencií (2)

113. Horváthová, M. [25%] – Oravec, J. [25%] – Bakošová, M. [25%] – **Kvasnica, M.** [25%]: Robust Convex-lifting-based Control Using Approximated Feedback Control Law. Editor(i): M. Fikar and M. Kvasnica, V Proceedings of the 22nd International Conference on Process Control, Slovak Chemical Library, Štrbské Pleso, Slovakia, 2019. ISBN: 978-1-7281-3757-5
114. Fedorová, K. [34%] – Bakaráč, P. [33%] – **Kvasnica, M.** [33%]: Comparison of Two Approaches to Agile Manoeuvres via MPC. Editor(i): M. Fikar and M. Kvasnica, V Proceedings of the 22nd International Conference on Process Control, Slovak Chemical Library, Štrbské Pleso, Slovakia, 2019. ISBN: 978-1-7281-3757-5

AGJ – Prihlášky ochranných známok (1)

115. **Kvasnica, M.** [100%]: tbxmanager. 2019.

Učebné texty (9)

BCI – Skriptá a učebné texty (9)

1. **Kvasnica, M.** [100%]: Elektronické učebné texty a materiály (prednášky, cvičenia, doplnkové materiály, videoprednášky) pre predmet **Prediktívne riadenie**. Dostupné online na <http://www.kirp.chtf.stuba.sk/moodle/course/view.php?id=309>
2. **Kvasnica, M.** [100%]: Elektronické učebné texty a materiály (prednášky, cvičenia, doplnkové materiály, videoprednášky) pre predmet **Optimalizácia procesov a výroby**. Dostupné online na <http://www.kirp.chtf.stuba.sk/moodle/course/view.php?id=383>
3. **Kvasnica, M.** [100%]: Elektronické učebné texty a materiály (prednášky, cvičenia, doplnkové materiály, videoprednášky) pre predmet **Informatizácia a informačné technológie 1**. Dostupné online na <http://www.kirp.chtf.stuba.sk/moodle/course/view.php?id=282>
4. **Kvasnica, M.** [100%]: Elektronické učebné texty a materiály (prednášky, cvičenia, doplnkové materiály, videoprednášky) pre predmet **Informatizácia a informačné technológie 2**. Dostupné online na <http://www.kirp.chtf.stuba.sk/moodle/course/view.php?id=398>
5. **Kvasnica, M.** [100%]: Elektronické učebné texty a materiály (prednášky, cvičenia, doplnkové materiály, videoprednášky) pre predmet **Projektovanie informačných a riadiacich systémov**. Dostupné online na <http://www.kirp.chtf.stuba.sk/moodle/course/view.php?id=341>
6. **Kvasnica, M.** [100%]: Elektronické učebné texty a materiály (prednášky, cvičenia, doplnkové materiály, videoprednášky) pre predmet **Základy programovania v jazyku C**. Dostupné online na <http://www.kirp.chtf.stuba.sk/moodle/course/view.php?id=425>
7. **Kvasnica, M.** [100%]: Elektronické učebné texty a materiály (prednášky, cvičenia, doplnkové materiály, testy) pre predmet **Optimalizácia**. Dostupné online na <http://www.kirp.chtf.stuba.sk/moodle/course/view.php?id=65>
8. **Kvasnica, M.** [100%]: Elektronické učebné texty a materiály (prednášky, cvičenia, doplnkové materiály) pre predmet **Programovanie 1**. Dostupné online na <http://www.kirp.chtf.stuba.sk/moodle/course/view.php?id=445>
9. **Kvasnica, M.** [100%]: Elektronické učebné texty a materiály (prednášky, cvičenia, doplnkové materiály) pre predmet **Základy programovania v jazyku C**. Dostupné online na <http://www.kirp.chtf.stuba.sk/moodle/course/view.php?id=446>

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prof. Ing. Anton Gatial, DrSc.
dekan FCHPT STU

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doc. Ing. Michal Kvasnica, PhD.