Publication list

Florin Stoican

January 30, 2024

Books and chapter books

[B1] Diaconescu, S., **F. Stoican**, and B. D. Ciubotaru. "Tube Model Predictive Control for Flexible Satellite Dynamics", in: Advances in discrete dynamical systems, difference equations, and applications (ICDEA), pp. 1–16, **2023**.
PUBLISHED BY: Springer (233 Spring St., New York, NY 10013 USA).

[B2] Mihai, Ş. S., **F. Stoican**, and B. D. Ciubotaru. "Explicit MPC solution using Hasse diagrams: construction, storage and retrieval", in: Advances in discrete dynamical systems, difference equations, and applications (ICDEA), pp. 1–16, **2023**.
PUBLISHED BY: Springer (233 Spring St., New York, NY 10013 USA).

[B3] Prodan, I., **F. Stoican**, S. Olaru, and S.-I. Niculescu. *Mixed-integer representations in control design: Mathematical foundations and applications*, ISBN: 9783319269955; 9783319269931. In: Springerbriefs in control, automation and robotics, pp. 1–115, **2016**.
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DOI: 10.1007/978-3-319-26995-5. WOS: 000415981400008. EID: 2-s2.0-84994142931.

[B4] **Stoican, F.**, C. Oara, and M. Hovd. "RPI approximations of the mRPI set characterizing linear dynamics with zonotopic disturbances", ISBN: 9783319266855. In: *Developments in model-based optimization and control: distributed control and industrial applications*Lecture notes in control and information sciences, pp. 361–377, **2015**.
PUBLISHED BY: Springer (233 Spring St., New York, NY 10013 USA).
DOI: 10.1007/978-3-319-26687-9_17. WOS: 000369162800019. EID: 2-s2.0-84954169584.

[B5] Prodan, I., **F. Stoican**, S. Olaru, C. Stoica, and S.-I. Niculescu. "Mixed-Integer Programming Techniques in Distributed MPC Problems", ISBN: 9789400770058. In: Intelligent systems, control and automation: science and engineering, pp. 275–291, **2014**.
PUBLISHED BY: Kluwer Academic.
DOI: 10.1007/978-94-007-7006-5_17. EID: 2-s2.0-84896528456.

[B6] **Stoican, F.** and S. Olaru. *Set-theoretic Fault-tolerant Control in Multisensor Systems*, ISBN: 9781848215658; 9781118649428. In: Automation - control and industrial engineering series, pp. 1–152, **2013**.
PUBLISHED BY: Wiley-Blackwell (111 River st., Hoboken 07030-5774, NJ, USA).
DOI: 10.1002/9781118649428. WOS: 000327043800009. EID: 2-s2.0-85014342801.

Journal papers

[J1] Irofti, P., L. Romero-Ben, **F. Stoican**, and V. Puig. "Learning Dictionaries From Physical-Based Interpolation for Water Network Leak Localization". In: *IEEE Transactions on Control Systems Technology*, pp. 1–12, **2024**. ISSN: 1063-6536.
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AIS: **1.454**. **Q1-AIS** (Automation & Control Systems - 16/82).
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[J2] Popescu, D., L. Ichim, and **F. Stoican**. "Orchard monitoring based on unmanned aerial vehicles and image processing by artificial neural networks: a systematic review". In: *Frontiers in Plant Science*, **2023**. ISSN: 1664-462X.
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[J3] Ciubotaru, B. D., A. Sperila, S. Diaconescu, **F. Stoican**, A. M. Stoica, and S. Bennani. "Satellite micro-launcher control: An integrated adaptive-robust and nonlinear approach". In: *Control Engineering Practice*, **2022**. ISSN: 0967-0661.
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DOI: 10.1016/j.conengprac.2022.105072. WOS: 000796711000008.

[J4] Ioan, D., I. Prodan, S. Olaru, **F. Stoican**, and S.-I. Niculescu. "Mixed-integer programming in motion planning". In: *Annual Reviews in Control*, pp. 65–87, **2021**. ISSN: 1367-5788.
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[J5] Irofti, P., **F. Stoican**, and V. Puig. "Fault Handling in Large Water Networks with Online Dictionary Learning". In: *International Journal of Process Control*, pp. 46–57, **2020**. ISSN: 0959-1524.
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DOI: 10.1016/j.jprocont.2020.08.003. WOS: 000577483600005.

[J6] Popescu, D., **F. Stoican**, G. Stamatescu, L. Ichim, and C. Dragana. "Advanced UAV–WSN System for Intelligent Monitoring in Precision Agriculture". In: *Sensors*, p. 817, **2020**. ISSN: 1424-8220.
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DOI: 10.3390/s20030817. WOS: 000517786200241.

[J7] Ioan, D., S. Olaru, I. Prodan, **F. Stoican**, and S.-I. Niculescu. "From Obstacle-Based Space Partitioning to Corridors and Path Planning. A Convex Lifting Approach". In: *IEEE Control Systems Letters*, pp. 79–84, **2019**.
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[J8] Popescu, D., **F. Stoican**, G. Stamatescu, O. Chenaru, and L. Ichim. "A Survey of Collaborative UAV-WSN Systems for Efficient Monitoring". In: *Sensors*, **2019**. ISSN: 1424-8220.
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DOI: 10.3390/s19214690. WOS: 000498834000087.

[J9] **Stoican, F.** and P. Irofti. "Aiding Dictionary Learning Through Multi-Parametric Sparse Representation". In: *Algorithms*, pp. 131–148, **2019**. ISSN: 1999-4893.
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[J10] Popescu, D., C. Dragana, **F. Stoican**, L. Ichim, and G. Stamatescu. "A collaborative UAV-WSN network for monitoring large areas". In: *Sensors*, pp. 1–25, **2018**. ISSN: 1424-8220.
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DOI: 10.3390/s18124202. WOS: 000454817100121. EID: 2-s2.0-85058086560.

[J11] **Stoican, F.**, I. Prodan, and E. I. Grotli. "Exact and overapproximated guarantees for corner cutting avoidance in a multiobstacle environment". In: *International Journal of Robust and Nonlinear Control*, pp. 4528–4548, **2018**. ISSN: 1049-8923.
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AIS: **0.949**. **Q2** (Automation & Control Systems - 24/65); **Q2** (Engineering, Electrical & Electronic - 80/275); **Q1** (Mathematics, Applied - 65/267).
DOI: 10.1002/rnc.4248. WOS: 000444416300014. EID: 2-s2.0-85050655361.

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[J13] Popescu, D., **F. Stoican**, and L. Ichim. "Control and optimization of UAV trajectory for aerial coverage in photogrammetry applications". In: *Advances in Electrical and Computer Engineering*, pp. 99–106, **2016**. ISSN: 1582-7445.
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DOI: 10.4316/AECE.2016.03014. WOS: 000384750000014. EID: 2-s2.0-84991093546.

[J14] Stankovic, N., **F. Stoican**, S. Olaru, and S.-I. Niculescu. "Fault tolerant control design for a class of multi-sensor networked control systems". In: *International Journal of Adaptive Control and Signal Processing*, pp. 412–426, **2016**. ISSN: 0890-6327.
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DOI: 10.1002/acs.2568. WOS: 000369342100016. EID: 2-s2.0-84961367930.

[J15] Prodan, I., E. Zio, and **F. Stoican**. "Fault tolerant predictive control design for reliable microgrid energy management under uncertainties". In: *Energy*, pp. 20–34, **2015**. ISSN: 0360-5442.
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DOI: 10.1016/j.energy.2015.08.009. WOS: 000365362700003. EID: 2-s2.0-84946026960.

[J16] Xu, F., V. Puig, C. Ocampo-Martinez, S. Olaru, and **F. Stoican**. "Set-theoretic methods in robust detection and isolation of sensor faults". In: *International Journal of Systems Science*, pp. 2317–2334, **2015**. ISSN: 0020-7721.
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DOI: 10.1080/00207721.2014.989293. WOS: 000357935900003. EID: 2-s2.0-84946481041.

[J17] Hovd, M. and **F. Stoican**. "On the design of exact penalty functions for MPC using mixed integer programming". In: *Computers & Chemical Engineering*, pp. 104–113, **2014**. ISSN: 0098-1354.
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DOI: 10.1016/j.compchemeng.2013.07.001. WOS: 000342461300010. EID: 2-s2.0-84907099758.

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DOI: 10.1080/00207721.2012.748947. WOS: 000337363600009. EID: 2-s2.0-84902884804.

[J19] **Stoican, F.**, S. Olaru, M. M. Seron, and J. A. De Dona. "A fault tolerant control scheme based on sensor-actuation channel switching and dwell time". In: *International Journal of Robust and Nonlinear Control*, pp. 775–792, **2014**. ISSN: 1049-8923.
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DOI: 10.1002/rnc.2907. WOS: 000329740800010. EID: 2-s2.0-84892555102.

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Conference papers

[C1] Gheorghe, B., **F. Stoican**, and I. Prodan. "A variable terminal set NMPC construction: application to multicopter stabilisation", pp. 1–6. In: *The 2023 European Control Conference, Bucharest, Romania, Jun 13-16*. **2023**.
DOI: 10.23919/ECC57647.2023.10178227. WOS: 001035589000112.

[C2] Gheorghe, B., **F. Stoican**, and I. Prodan. "On Complexity Reduction in a Variable Terminal Set Setpoint-Tracking MPC Scheme", pp. 5682–5687. In: *62nd IEEE Conference on Decision and Control (CDC)*. **2023**.
DOI: 10.1109/CDC49753.2023.10384014.

[C3] Marguet, V., **F. Stoican**, and I. Prodan. "On the application of the Schoenberg quasi-interpolant for complexity reduction in trajectory generation", pp. 1–6. In: *The 2023 European Control Conference, Bucharest, Romania, Jun 13-16*. **2023**.
DOI: 10.23919/ECC57647.2023.10178175. WOS: 001035589000060.

[C4] Mihai, S. S., **F. Stoican**, and B. D. Ciubotaru. "Computing the explicit MPC solution using the Hasse diagram of the lifted feasible domain", pp. 1–6. In: *The 2023 European Control Conference, Bucharest, Romania, Jun 13-16*. **2023**.
DOI: 10.23919/ECC57647.2023.10178152. WOS: 001035589000037.

[C5] Nicu, T.-G., **F. Stoican**, and I. Prodan. "Smooth approximation of polyhedral potential field in NMPC for obstacle avoidance", pp. 1–6. In: *The 2023 European Control Conference, Bucharest, Romania, Jun 13-16*. **2023**.
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[C6] **Stoican, F.**, J. Culita, and S. Olaru. "Set-theoretic fault-diagnosis for a nonlinear real-word fluidic benchmark", pp. 1–6. In: *The 2023 European Control Conference, Bucharest, Romania, Jun 13-16*. **2023**.
DOI: 10.23919/ECC57647.2023.10178147. WOS: 001035589000032.

[C7] Do, H. T., F. Nicolau, **F. Stoican**, and I. Prodan. "Tracking control for a flat system under disturbances: a fixed-wing UAV example", pp. 406–411. In: *18th IFAC Workshop on Control Applications of Optimization (CAO), Gif sur Yvette, FRANCE, Jul 18-22*. **2022**.
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[C8] Florea, A. G., **F. Stoican**, C. Buiu, and C. Oara. "3D Pose Estimation of Custom Objects Using Synthetic Datasets", pp. 649–655. In: *26th International Conference on System Theory, Control and Computing (ICSTCC), Sinaia, Romania, Oct 19-21*. **2022**.
DOI: 10.1109/ICSTCC55426.2022.9931890. WOS: 000889980600109.

[C9] Irofti, P., L. Romero-Ben, **F. Stoican**, and V. Puig. "Data-driven Leak Localization in Water Distribution Networks via Dictionary Learning and Graph-based Interpolation", pp. 1265–1270. In: *2022 IEEE Conference on Control Technology and Applications (CCTA)*. **2022**.
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[C13] Do, H.-T., I. Prodan, and **F. Stoican**. "Analysis of alternative flat representations of a UAV for trajectory generation and tracking", pp. 58–63. In: *25th International Conference on System Theory, Control and Computing (ICSTCC), Iasi, Romania, Oct 20-23*. **2021**.
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[C20] Ioan, D., S. Olaru, I. Prodan, **F. Stoican**, and S.-I. Niculescu. "Parametrized Hyperplane Arrangements for Control Design with Collision Avoidance Constraints", pp. 1591–1596. In: *15th IEEE International Conference on Control & Automation IEEE ICCA 2019. Edinburgh, Scotland*. **2019**.
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[C23] Prodan, I., **F. Stoican**, and C. Louembet. "Necessary and sufficient LMI conditions for constraints satisfaction within a B-spline framework", pp. 8061–8066. In: *58th IEEE Conference on Decision and Control, Nice, France*. **2019**.
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