

# Publication list

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## Citation summary

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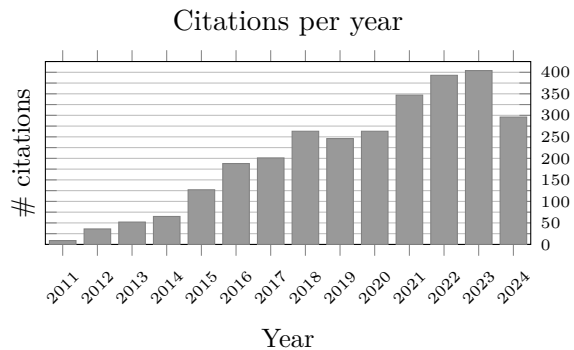
Number of Citations: 3012

h-index: 30

i10-index: 69

i100-index: 7

g-index: 48



## International Journals (Year ▼, Author ▲)

- [J42] D. Bujosa Mateu, J. Proenza, A. V. Papadopoulos, T. Nolte, and M. Ashjaei. “TALESS: TSN with Legacy End-Stations Synchronization”. In: *IEEE Open Journal of the Industrial Electronics Society* 5 (July 2024), pp. 807–822. DOI: 10.1109/OJIES.2024.3436590.
- [J41] A. Al-Dulaimy, M. Jansen, B. Johansson, A. Trivedi, A. Iosup, M. Ashjaei, A. Galletta, D. Kimovski, R. Prodan, K. Tserpes, G. Kousiouris, C. Giannakos, I. Brandic, N. Ali, A. Bondi, and A. V. Papadopoulos. “The Computing Continuum: From IoT to the Cloud”. In: *Internet of Things* 27 (June 2024), p. 101272. DOI: <https://doi.org/10.1016/j.iot.2024.101272>.
- [J40] M. Kaheni, A. V. Papadopoulos, E. Usai, and M. Franceschelli. “A Privacy-Preserving Distributed Greedy Framework to Desynchronize Power Consumption in a Network of Thermostatically Controlled Loads”. In: *IEEE Transactions on Control Systems Technology* (June 2024), pp. 1–8. DOI: 10.1109/TCST.2024.3425210.
- [J39] D. Kimovski, N. Saurabh, M. Jansen, A. Aral, A. Al-Dulaimy, A. B. Bondi, A. Galletta, A. V. Papadopoulos, A. Iosup, and R. Prodan. “Beyond von Neumann in the Computing Continuum: Architectures, Applications, and Future Directions”. In: *IEEE Internet Computing* 28.3 (2024), pp. 6–16. DOI: 10.1109/MIC.2023.3301010.
- [J38] V. Struhár, S. S. Craciunas, M. Ashjaei, M. Behnam, and A. V. Papadopoulos. “Hierarchical Resource Orchestration Framework for Real-Time Containers”. In: *ACM Transactions on Embedded Computing Systems* 23.1 (Jan. 2024). DOI: 10.1145/3592856.
- [J37] B. Miloradović, B. Çürüklü, M. Ekström, and A. V. Papadopoulos. “Optimizing Parallel Task Execution for Multi-Agent Mission Planning”. In: *IEEE Access* 11 (Mar. 2023), pp. 24367–24381. DOI: 10.1109/ACCESS.2023.3254900.
- [J36] A. V. Papadopoulos, K. Agrawal, E. Bini, and S. Baruah. “Feedback-Based Resource Management for Multi-Threaded Applications”. In: *Real-Time Systems* 59.1 (Mar. 2023), pp. 35–68. DOI: 10.1007/s11241-022-09386-7.

- [J35] M. Frasheri, V. Struhár, A. V. Papadopoulos, and A. Čaušević. “Ethics of Autonomous Collective Decision-Making: the CAESAR Framework”. In: *Science and Engineering Ethics* 28.61 (6 Nov. 2022). DOI: 10.1007/s11948-022-00414-0.
- [J34] V. Gulisano, H. Najdataei, Y. Nikolakopoulos, A. V. Papadopoulos, M. Papatriantafidou, and P. Tsigas. “STRETCH: Virtual Shared-Nothing Parallelism for Scalable and Elastic Stream Processing”. In: *IEEE Transactions on Parallel and Distributed Systems* 33.12 (Dec. 2022), pp. 4221–4238. DOI: 10.1109/TPDS.2022.3181979.
- [J33] A. Lager, G. Spampinato, A. V. Papadopoulos, and T. Nolte. “Task Roadmaps: Speeding up Task Replanning”. In: *Frontiers in Robotics and AI* 9 (Mar. 2022). DOI: 10.3389/frobt.2022.816355.
- [J32] B. Miloradović, B. Çürüklü, M. Ekström, and A. V. Papadopoulos. “GMP: A Genetic Mission Planner for Heterogeneous Multi-Robot System Applications”. In: *IEEE Transactions on Cybernetics* 52.10 (Oct. 2022), pp. 10627–10638. DOI: 10.1109/TCYB.2021.3070913.
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- [J30] S. M. Salman, A. V. Papadopoulos, S. Mubeen, and T. Nolte. “Multi-processor scheduling of elastic applications in compositional real-time systems”. In: *Journal of Systems Architecture* (2022), p. 102358. DOI: 10.1016/j.sysarc.2021.102358.
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- [J27] P. Patros, J. Spillner, A. V. Papadopoulos, B. Varghese, O. Rana, and S. Dustdar. “Towards Sustainable Serverless Computing”. In: *IEEE Internet Computing* 25.6 (Dec. 2021), pp. 42–50. DOI: 10.1109/MIC.2021.3093105.
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- [J23] A. Leva, A. V. Papadopoulos, S. Seva, and C. Cimino. “Explicit model-based real PID tuning for efficient load disturbance rejection”. In: *Industrial & Engineering Chemistry Research* 58.51 (Nov. 2019), pp. 23211–23224. DOI: 10.1021/acs.iecr.9b04198.
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- [J19] A. V. Papadopoulos, F. Terraneo, A. Leva, and M. Prandini. “Switched control for quantized feedback systems: invariance and limit cycles analysis”. In: *IEEE Transactions on Automatic Control* 63.11 (Nov. 2018), pp. 3775–3786. DOI: 10.1109/TAC.2018.2797246.
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- [J12] A. V. Papadopoulos, C. Klein, M. Maggio, J. Dürango, M. Dellkrantz, F. Hernández-Rodríguez, E. Elmroth, and K.-E. Årzén. “Control-Based Load-Balancing Techniques: Analysis and Performance Evaluation via a Randomized Optimization Approach”. In: *Control Engineering Practice* 52 (July 2016), pp. 24–34. DOI: 10.1016/j.conengprac.2016.03.020.
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- [J9] A. V. Papadopoulos, M. Maggio, A. Leva, and E. Bini. “Hard Real-Time Guarantees in Feedback-based Resource Reservations”. In: *Real-Time Systems* 51.3 (June 2015), pp. 221–246. DOI: 10.1007/s11241-015-9224-1.
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- [J3] M. Maggio, H. Hoffmann, A. V. Papadopoulos, J. Panerati, M. D. Santambrogio, A. Agarwal, and A. Leva. “Comparison of Decision Making Strategies for Self-Optimization in Autonomic Computing Systems”. In: *ACM Transactions on Autonomous and Adaptive Systems* 7.4 (Dec. 2012), 36:1–36:32. DOI: 10.1145/2382570.2382572.
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- [C130] A. Alhashimi, T. Nolte, and A. V. Papadopoulos. “Enhancing Sensor Attack Detection and Mitigating Sensor Compromise Impact in a Switching-Based Moving Target Defense”. In: *22nd European Control Conference (ECC)*. Stockholm, Sweden, June 2024, pp. 2560–2567. DOI: 10.23919/ECC64448.2024.10590869.
- [C129] L. Bramblett, B. Miloradović, P. Sherman, A. V. Papadopoulos, and N. Bezzo. “Robust Online Epistemic Replanning of Multi-Robot Missions”. In: *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*. (accepted). Abu Dhabi, United Arab Emirates, Oct. 2024.
- [C128] D. Bujosa Mateu, J. Proenza, A. V. Papadopoulos, T. Nolte, and M. Ashjaei. “An Improved Worst-Case Response Time Analysis for AVB Traffic in Time-Sensitive Networks”. In: *Proceedings of the 45th IEEE Real-Time Systems Symposium (RTSS)*. (accepted). York, United Kingdom, Dec. 2024.
- [C127] A. Al-Dulaimy, K. Turki, T. Nolte, and A. V. Papadopoulos. “An Expert System for Managing the Render Farms in Cloud Data Centers”. In: *IEEE Research and Technologies for Society and Industry (RTSI)*. (accepted). Lecco, Italy, Sept. 2024.
- [C126] B. Johansson, O. Holmgren, M. Dahl, H. Forsberg, T. Nolte, and A. V. Papadopoulos. “OPC UA PubSub and Industrial Controller Redundancy”. In: *29th IEEE International Conference on Emerging Technologies and Factory Automation (ETFA)*. (accepted). Padova, Italy, Sept. 2024.
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- [C124] B. Johansson, O. Holmgren, T. Nolte, and A. V. Papadopoulos. “Partible State Replication for Industrial Controller Redundancy”. In: *25th IEEE International Conference on Industrial Technology (ICIT)*. Bristol, United Kingdom, Mar. 2024, pp. 1–8. DOI: 10.1109/ICIT58233.2024.10540726.

- [C123] M. Kaheni and A. V. Papadopoulos. “Hybrid Moving Controller: Modified Hybrid Moving Target Defense with Stability Guarantees”. In: *22nd European Control Conference (ECC)*. Stockholm, Sweden, June 2024, pp. 1698–1703. DOI: 10.23919/ECC64448.2024.10590788.
- [C122] A. Lager, B. Miloradović, G. Spampinato, T. Nolte, and A. V. Papadopoulos. “Risk-Aware Planning of Collaborative Mobile Robot Applications with Uncertain Task Durations”. In: *33rd IEEE International Conference on Robot and Human Interactive Communication (RO-MAN)*. (accepted). Los Angeles, CA, USA, Aug. 2024.
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- [C118] A. Alhashimi, T. Nolte, and A. V. Papadopoulos. “Change-point and model estimation with heteroskedastic noise and unknown model structure”. In: *9th International Conference on Control, Decision and Information Technologies (CoDIT)*. Rome, Italy, July 2023, pp. 2126–2132. DOI: 10.1109/CoDIT58514.2023.10284232.
- [C117] A. Ameri E., B. Miloradović, B. Çürüklü, A. V. Papadopoulos, M. Ekström, and J. Dréo. “Interplay of Human and AI Solvers on a Planning Problem”. In: *IEEE International Conference on System Man, and Cybernetics (SMC)*. Honolulu, Oahu, HI, USA, Oct. 2023, pp. 3166–3173. DOI: 10.1109/SMC53992.2023.10394024.
- [C116] D. Bujosa Mateu, J. Proenza, A. V. Papadopoulos, T. Nolte, and M. Ashjaei. “Introducing Guard Frames to Ensure Schedulability of All TSN Traffic Classes”. In: *28th International Conference on Factory Automation (ETFA)*. Sinaia, Romania, Sept. 2023, pp. 1–4. DOI: 10.1109/ETFA54631.2023.10275532.
- [C115] M. Frasheri, B. Miloradović, L. Esterle, and A. V. Papadopoulos. “GLocal: A Hybrid Approach to the Multi-Agent Mission Re-Planning Problem”. In: *IEEE Symposium Series on Computational Intelligence (SSCI)*. Mexico City, Mexico, Dec. 2023, pp. 1696–1703. DOI: 10.1109/SSCI52147.2023.10371893.
- [C114] A. Friebe, F. Marković, A. V. Papadopoulos, and T. Nolte. “Continuous-Emission Markov Models for Real-Time Applications: Bounding Deadline Miss Probabilities”. In: *29th IEEE Real-Time and Embedded Technology and Applications Symposium (RTAS)*. San Antonio, TX, USA, May 2023, pp. 14–26. DOI: 10.1109/RTAS58335.2023.00009.
- [C113] G. Gualandi and A. V. Papadopoulos. “Worst-Case Impact Assessment of Multi-Alarm Stealth Attacks Against Control Systems with CUSUM-Based Anomaly Detection”. In: *4th IEEE International Conference on Autonomic Computing and Self-Organizing Systems (AC-SOS)*. Toronto, Canada, Sept. 2023, pp. 117–126. DOI: 10.1109/ACSOS58161.2023.00029. **(Best paper award candidate)**.
- [C112] S. Hariharan, A. Erséus, T. Nolte, and A. V. Papadopoulos. “Towards a holistic approach to security validation of construction machinery through HIL systems”. In: *28th International Conference on Factory Automation (ETFA)*. Sinaia, Romania, Sept. 2023, pp. 1–8. DOI: 10.1109/ETFA54631.2023.10275402.

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- [C110] B. Johansson, M. Rågberger, A. V. Papadopoulos, and T. Nolte. “Consistency Before Availability: Network Reference Point based Failure Detection for Controller Redundancy”. In: *28th International Conference on Factory Automation (ETFA)*. Sinaia, Romania, Sept. 2023, pp. 1–8. DOI: 10.1109/ETFA54631.2023.10275664.
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- [C106] B. Miloradović, E. Marti Bigorra, T. Nolte, and A. V. Papadopoulos. “Challenges in the Automated Disassembly Process of Electric Vehicle Battery Packs”. In: *28th International Conference on Factory Automation (ETFA)*. Sinaia, Romania, Sept. 2023, pp. 1–4. DOI: 10.1109/ETFA54631.2023.10275389.
- [C105] B. Miloradović, E. Osaba, J. Del Ser, V. Vujović, and A. V. Papadopoulos. “On the Design and Performance of a Novel Metaheuristic Solver for the Extended Colored Traveling Salesman Problem”. In: *26th IEEE International Conference on Intelligent Transportation Systems (ITSC)*. Bilbao, Bizkaia, Spain, Sept. 2023, pp. 1955–1962. DOI: 10.1109/ITSC57777.2023.10421924.
- [C104] B. Miloradović and A. V. Papadopoulos. “Multi-Criteria Optimization of Application Offloading in the Edge-to-Cloud Continuum”. In: *62nd IEEE Conference on Decision and Control (CDC)*. Singapore, Dec. 2023, pp. 4917–4923. DOI: 10.1109/CDC49753.2023.10383752.
- [C103] N. Persson, M. C. Ekström, M. Ekström, and A. V. Papadopoulos. “On the Initialization Problem for Timed-Elastic Bands”. In: *Proceedings of the 22nd IFAC World Congress (IFAC WC)*. Yokohama, Japan, July 2023, pp. 11802–11807. DOI: 10.1016/j.ifacol.2023.10.574.
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- [C100] S. M. Salman, A. V. Papadopoulos, S. Mubenn, and T. Nolte. “Evaluating Dispatching and Scheduling Strategies for Firm Real-Time Jobs in Multi-Server Systems”. In: *49th Annual Conference of the IEEE Industrial Electronics Society (IECON)*. Singapore, Oct. 2023, pp. 1–6. DOI: 10.1109/IECON51785.2023.10312523.

- [C99] V. Struhár, M. Ashjaei, M. Behnam, A. V. Papadopoulos, and S. S. Craciunas. “Resource Adaptation for Real-Time Containers Considering Quality of Control”. In: *28th International Conference on Factory Automation (ETFA)*. Sinaia, Romania, Sept. 2023, pp. 1–7. DOI: 10.1109/ETFA54631.2023.10275357.
- [C98] E. Bini, A. V. Papadopoulos, J. Higgins, and N. Bezzo. “Optimal Reference Tracking for Sampled-Data Control Systems”. In: *IEEE 61st Annual Conference on Decision and Control (CDC)*. Cancún, Mexico, Dec. 2022, pp. 7141–7148. DOI: 10.1109/CDC51059.2022.9992462.
- [C97] D. Bujosa Mateu, M. Ashjaei, A. V. Papadopoulos, J. Proenza, and T. Nolte. “HERMES: Heuristic Multi-queue Scheduler for TSN Time-Triggered Traffic with Zero Reception Jitter Capabilities”. In: *30th International Conference on Real-Time Networks and Systems (RTNS)*. Paris, France: Association for Computing Machinery, June 2022, pp. 70–80. DOI: 10.1145/3534879.3534906.
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- [W12] A. Al-Dulaimy, C. Sicari, A. V. Papadopoulos, A. Galletta, M. Villari, and M. Ashjaei. “TOLERANCER: A Fault Tolerance Approach for Cloud Manufacturing Environments”. In: *Cloud Native Real Time Systems Workshop (CLONAR)*. Stuttgart, Germany, Sept. 2022, pp. 1–8. DOI: 10.1109/ETFA52439.2022.9921606.
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- [T3] M. Jansen, A. Al-Dulaimy, A. V. Papadopoulos, A. Trivedi, and A. Iosup. *The SPEC-RG Reference Architecture for the Edge Continuum*. Tech. rep. CoRR, 2022. DOI: 10.48550/ARXIV.2207.04159. arXiv: 2207.04159. URL: <http://arxiv.org/abs/2207.04159>.
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- [A2] A. V. Papadopoulos, E. Bini, S. Baruah, and A. Burns. “AdaptMC: A Control-Theoretic Approach for Achieving Resilience in Mixed-Criticality Systems (Artifact)”. In: *Dagstuhl Artifacts Series 4.2* (2018), 1:1–1:3. DOI: 10.4230/DARTS.4.2.1. URL: <http://drops.dagstuhl.de/opus/volltexte/2018/8969>.

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- [O1] A. V. Papadopoulos and M. Maggio. *Autonomous Computing Systems: The Convergence of Control Theory and Computing Systems*. IEEE Software Blog, 2019. URL: <http://blog.ieeesoftware.org/2019/07/autonomous-computing-systems.html>.

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- [SJ5] A. Al-Dulaimy, M. Jansen, D. Kimovski, N. Saurabh, L. Hatvani, A. Aral, A. Galletta, R. Prodan, A. Iosup, and A. V. Papadopoulos. “The Future of Computing: Predictions and Possibilities”. In: *Computing in Science and Engineering* (Jan. 2024). (submitted under review).
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- [SJ3] M. Kaheni, J. Fu, and A. V. Papadopoulos. “Rule-Based Predictive Control for Battery Energy Storage Systems in Microgrids with Actual-Predicted Load Discrepancies”. In: *IEEE Transactions on Automation Science and Engineering* (Jan. 2024). (submitted under review).
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- [SJ1] M. Momeni, J. Relefors, L. Pettersson, A. V. Papadopoulos, and T. Nolte. “On Finding an Installation Order for the Reinforcement Bars Used in Concrete Structures – An Algorithmic Approach”. In: *Automation in Construction* (Oct. 2023). (submitted under review).

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- [SC1] B. Miloradović and A. V. Papadopoulos. “Robust Online Epistemic Replanning of Multi-Robot Missions”. In: *40th International Symposium of Robotics Research (ISR)*. (submitted under review). Aug. 2024.