

# Complete List of Publications

Klervie Toczé

The publications are presented in reverse chronological order.

## Theses

- [1] Klervie Toczé, **Orchestrating a Resource-aware Edge**, PhD dissertation No. 2403, Linköping University, 2024. 96 pages. ISBN: 9789180757478. DOI:[10.3384/9789180757485](https://doi.org/10.3384/9789180757485).
- [2] Klervie Toczé, **Latency-aware Resource Management at the Edge**, Licentiate thesis No. 1871, Linköping University, 2020. 126 pages. ISBN: 9789179299040. DOI:[10.3384/lic.diva-163388](https://doi.org/10.3384/lic.diva-163388).
- [3] Klervie Toczé, **Functional Reactive Programming as programming model for telecom server software**, Master thesis, Linköping University, 2014. 95 pages. ISRN: LiTH-IDA/ERASMUS-A-14/003—SE. URN:[urn:nbn:se:liu:diva-113142](https://nbn-resolving.org/urn:nbn:se:liu:diva-113142). **Best thesis prize.**

## International peer-reviewed journals

- [4] Klervie Toczé and Simin Nadjm-Tehrani, **The Necessary Shift: Toward a Sufficient Edge Computing**, in *IEEE Pervasive Computing*, IEEE, 2024. Pages 7-16. DOI: [10.1109/MPRV.2024.3386337](https://doi.org/10.1109/MPRV.2024.3386337).
- [5] Klervie Toczé, Ali J. Fahs, Guillaume Pierre, and Simin Nadjm-Tehrani, **VioLinn: Proximity-Aware Edge Placement with Dynamic and Elastic Resource Provisioning**, in *ACM Transactions on Internet of Things*, ACM, 2023. Pages 1-31. DOI: [10.1145/3573125](https://doi.org/10.1145/3573125).
- [6] Klervie Toczé, Johan Lindqvist, and Simin Nadjm-Tehrani, **Characterization and Modeling of an Edge Computing Mixed Reality Workload**, *Journal of Cloud Computing*, vol. 9, no. 46, Springer, 2020. Pages 1-24. DOI: [10.1186/s13677-020-00190-x](https://doi.org/10.1186/s13677-020-00190-x).
- [7] Klervie Toczé and Simin Nadjm-Tehrani, **A Taxonomy for Management and Optimization of Multiple Resources in Edge Computing**, *Wireless Communications and Mobile Computing*, Wiley-Hindawi, 2018. 23 pages. DOI: [10.1155/2018/7476201](https://doi.org/10.1155/2018/7476201).

## International peer-reviewed conferences

- [8] Klervie Toczé, Andrei Dragomir, Vincenzo Stoico and Patricia Lago, **Toward an Architectural Blueprint to Observe Sustainability in and by Software Systems**, *In press, accepted at International Conference on Software Architecture 2026 - Software Architecture Showcase track*. 5 pages. Pre-print: [10.48550/arXiv.2604.09278](https://arxiv.org/abs/10.48550/arXiv.2604.09278).
- [9] Klervie Toczé, Iffat Fatima, Patricia Lago and Lia van Wesenbeeck, **Supporting a Sustainable and Inclusive Urban Agriculture Federation using Dashboarding**, *In press, accepted and presented at Enviro-Info 2025*. 18 pages. Pre-print: [10.48550/arXiv.2509.00595](https://arxiv.org/abs/10.48550/arXiv.2509.00595).
- [10] Klervie Toczé and Simin Nadjm-Tehrani, **Energy Metrics for Edge Microservice Request Placement Strategies**, in *Proceedings of the ACM/SPEC International Conference on Performance Engineering (ICPE)*, ACM, 2025. Pages 347-354. DOI: [10.1145/3676151.3719380](https://doi.org/10.1145/3676151.3719380).
- [11] Klervie Toczé, Norbert Schmitt, Ulf Kargén, Atakan Aral, and Ivona Brandic, **Edge Workload Trace Gathering and Analysis for Benchmarking**, in *Proceedings of the IEEE International Conference on Fog and Edge Computing (ICFEC)*, IEEE, 2022. Pages 34-41. DOI: [10.1109/ICFEC54809.2022.00012](https://doi.org/10.1109/ICFEC54809.2022.00012).

- [12] Klervie Toczé, Johan Lindqvist, and Simin Nadjm-Tehrani, **Performance Study of Mixed Reality for Edge Computing**, in *Proceedings of the IEEE/ACM International Conference on Utility and Cloud Computing (UCC)*, ACM, 2019. Pages 285-294. DOI: [10.1145/3344341.3368816](https://doi.org/10.1145/3344341.3368816). **Best paper award**.
- [13] Klervie Toczé and Simin Nadjm-Tehrani, **ORCH: Distributed Orchestration Framework using Mobile Edge Devices**, in *Proceedings of the IEEE International Conference on Fog and Edge Computing (ICFEC)*, IEEE, 2019. Pages 1-10. DOI: [10.1109/CFEC.2019.8733152](https://doi.org/10.1109/CFEC.2019.8733152).
- [14] Klervie Toczé, Maria Vasilevskaya, Patrik Sandahl and Simin Nadjm-Tehrani, **Maintainability of functional reactive programs in a telecom server software**, in *Proceedings of the Annual ACM Symposium on Applied Computing (SAC)*, ACM, 2016. Pages 2001-2003. DOI: [10.1145/2851613.2851954](https://doi.org/10.1145/2851613.2851954). Poster.

#### International peer-reviewed workshops

- [15] Klervie Toczé, **Introducing Resource Awareness Levels in Edge Computing Resource Management**, in *Companion of the ACM/SPEC International Conference on Performance Engineering*, ACM, 2025. Pages 195-198. DOI: [10.1145/3680256.3721329](https://doi.org/10.1145/3680256.3721329). Workshop name: HotCloudPerf.
- [16] Klervie Toczé, Maël Madon, Muriel Garcia, and Patricia Lago, **The Dark Side of Cloud and Edge Computing: An Exploratory Study**, in *Workshop on Computing within Limits (LIMITS '22)*, PubPub, 2022. 12 pages. DOI: [10.21428/bf6fb269.9422c084](https://doi.org/10.21428/bf6fb269.9422c084).
- [17] Klervie Toczé, Norbert Schmitt, Ivona Brandic, Atakan Aral, and Simin Nadjm-Tehrani, **Towards Edge Benchmarking: A Methodology for Characterizing Edge Workloads**, in *Proceedings of the IEEE International Workshops on Foundations and Applications of Self\* Systems (FAS\*W)*, IEEE, 2019. Pages 70-71. DOI: [10.1109/FAS-W.2019.00030](https://doi.org/10.1109/FAS-W.2019.00030). Workshop name: HotCloudPerf.
- [18] Klervie Toczé and Simin Nadjm-Tehrani, **Where Resources meet at the Edge**, in *Proceedings of IEEE International Workshop on Secure and Resource-Efficient Edge Computing, held in conjunction with CIT*, IEEE, 2017. Pages 302-307. DOI: [10.1109/CIT.2017.60](https://doi.org/10.1109/CIT.2017.60).

#### Others

- [19] Klervie Toczé, Nikolas Herbst, Sacheendra Talluri, and Marcin Copik, **HotCloudPerf'26 Workshop Chairs' Welcome**, in *Companion of the ACM/SPEC International Conference on Performance Engineering*, ACM, 2026. Pages 138-139. DOI: [10.1145/3777911.3800621](https://doi.org/10.1145/3777911.3800621).
- [20] Klervie Toczé, André Bauer, Dragi Kimovski, and Daniele Bonetta, **HotCloudPerf'25 Workshop Chairs' Welcome**, in *Companion of the ACM/SPEC International Conference on Performance Engineering*, ACM, 2025. Pages 152-153. DOI: [10.1145/3680256.3721302](https://doi.org/10.1145/3680256.3721302).
- [21] Klervie Toczé and Vassilis Litskas, **Feed4Food Deliverable 3.1: Data Collection Protocol**, May 2025. Pages 1-45. *Submitted to the European Commission*.
- [22] Dragi Kimovski, Klervie Toczé, Nikolas Herbst, and Tiziano de Matteis, **The Seventh Workshop on Hot Topics in Cloud Computing Performance (HotCloudPerf-2024)**, in *Companion of the ACM/SPEC International Conference on Performance Engineering*, ACM, 2024. Pages 163-164. DOI: [10.1145/3629527.3651415](https://doi.org/10.1145/3629527.3651415).
- [23] Klervie Toczé, Cristina Abad, Nikolas Herbst, and Alexandru Iosup, **HotCloudPerf'23 Workshop Chairs' Welcome**, in *Companion of the ACM/SPEC International Conference on Performance Engineering*, ACM, 2023. Pages 257-258. DOI: [10.1145/3578245.3584725](https://doi.org/10.1145/3578245.3584725).