

# Publication List — Masaki Waga

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## Publications

- 2022** Masaki Waga, Ezequiel Castellano, Sasinee Pruekprasert, Stefan Klikovits, Toru Takisaka, Ichiro Hasuo. "Dynamic Shielding for Reinforcement Learning in Black-Box Environments.", To appear in *Proc. International Symposium on Automated Technology for Verification and Analysis 2022*.
- Ryotaro Banno, Kotaro Matsuoka, Naoki Matsumoto, Song Bian, Masaki Waga, Kohei Suenaga. "Oblivious Online Monitoring for Safety LTL Specification via Fully Homomorphic Encryption.", In *Proc. 34th International Conference on Computer-Aided Verification 2022*: 447-468.
- Étienne André, Masaki Waga, Natsuki Urabe, Ichiro Hasuo. "Exemplifying parametric timed specifications over signals with bounded behavior.", In *Proc. NASA Formal Methods Symposium 2022*: 470-488.
- Masaki Waga, Étienne André, Ichiro Hasuo. "Parametric Timed Pattern Matching.", To appear in *Proc. 2022*.
- Masaki Waga, Étienne André, Ichiro Hasuo. "Model-Bounded Monitoring of Hybrid Systems.", To appear in *Proc. 2022*.
- 2021** Sota Sato, Atsuyoshi Saimen, Masaki Waga, Kenji Takao, Ichiro Hasuo. "Hybrid System Falsification for Multiple-Constraint Parameter Synthesis: a Gas Turbine Case Study.", In *Proc. 24th International Symposium on Formal Methods 2021*: 313-329.
- Junya Shijubo, Masaki Waga, Kohei Suenaga. "Efficient Black-Box Checking via Model Checking with Strengthened Specifications.", In *Proc. The 21st International Conference on Runtime Verification 2021*: 100-120.
- Sota Sato, Masaki Waga, Ichiro Hasuo. "Constrained Optimization for Falsification and Conjunctive Synthesis.", In *Proc. 6th IFAC Conference on Analysis and Design of Hybrid Systems 2021*: 217-222.
- Masaki Waga, Étienne André, Ichiro Hasuo. "Model-Bounded Monitoring of Hybrid Systems.", In *Proc. 12th ACM/IEEE International Conference on Cyber-Physical Systems 2021*: 21-32.

- 2020** Elena Gutiérrez, Takamasa Okudono, Masaki Waga, Ichiro Hasuo. "Genetic algorithm for the weight maximization problem on weighted automata.", In *Proc. GECCO'20: Genetic and Evolutionary Computation Conference 2020*: 699-707.
- Masaki Waga. "Falsification of cyber-physical systems with robustness-guided black-box checking.", In *Proc. HSCC'20: 23rd ACM International Conference on Hybrid Systems: Computation and Control 2020*: 11:1-11:13.
- Takamasa Okudono, Masaki Waga, Taro Sekiyama, Ichiro Hasuo. "Weighted Automata Extraction from Recurrent Neural Networks via Regression on State Spaces.", In *Proc. The Thirty-Fourth AAAI Conference on Artificial Intelligence, AAAI 2020, The Thirty-Second Innovative Applications of Artificial Intelligence Conference, IAAI 2020, The Tenth AAAI Symposium on Educational Advances in Artificial Intelligence, EAAI 2020* 2020: 5306-5314.
- 2019** Masaki Waga. "Online Quantitative Timed Pattern Matching with Semiring-Valued Weighted Automata.", In *Proc. FORMATS 2019*: 3-22.
- Masaki Waga, Étienne André, Ichiro Hasuo. "Symbolic Monitoring Against Specifications Parametric in Time and Data.", In *Proc. CAV (1) 2019*: 520-539.
- Masaki Waga, Étienne André. "Online Parametric Timed Pattern Matching with Automata-Based Skipping.", In *Proc. NFM 2019*: 371-389.
- Masaki Waga, Ichiro Hasuo. "Moore-machine filtering for timed and untimed pattern matching: poster abstract.", In *Proc. HSCC 2019*: 272-273.
- 2018** Étienne André, Ichiro Hasuo, Masaki Waga. "Offline Timed Pattern Matching under Uncertainty.", In *Proc. ICECCS 2018*: 10-20.
- Masaki Waga, Ichiro Hasuo. "Moore-Machine Filtering for Timed and Untimed Pattern Matching.", In *IEEE Trans. Comput. Aided Des. Integr. Circuits Syst.* 37.11 (2018): 2649-2660.
- Masaki Waga, Ichiro Hasuo, Kohei Suenaga. "MONAA: A Tool for Timed Pattern Matching with Automata-Based Acceleration.", In *Proc. MT@CPSWeek 2018*: 14-15.
- 2017** Masaki Waga, Ichiro Hasuo, Kohei Suenaga. "Efficient Online Timed Pattern Matching by Automata-Based Skipping.", In *Proc. FORMATS 2017*: 224-243.

**2016** Masaki Waga, Takumi Akazaki, Ichiro Hasuo. "A Boyer-Moore Type Algorithm for Timed Pattern Matching.", In *Proc. FORMATS 2016*: 121-139.