

A. R. Balasubramanian

Max Planck Institute for Software Systems (MPI-SWS)
Paul-Ehrlich-Strasse, Building G 26 – 67663 Kaiserslautern, Germany

☎ 015166936388 • ✉ bayikudi@mpi-sws.org

Personal Data

Born : 19 August 1996; Surandai, Tamil Nadu, India
Citizenship : Indian
Languages : Tamil (Mother tongue), English (Fluent), Hindi (Intermediate), German (Basic)

Education

- **PhD in Computer Science** **Sep. 2019 -**
Technical University of Munich
- **Master of Science in Computer Science** **2017 - 2019**
Chennai Mathematical Institute
- **Bachelor of Science (Hons.) in Mathematics and Computer Science** **2014 - 2017**
Chennai Mathematical Institute

Publications

Journal publications.....

1. **A. R. Balasubramanian, Javier Esparza, Mikhail Raskin.** *Finding Cut-offs in Leaderless Rendez-Vous Protocols is Easy.* Accepted at LMCS. *Special issue of FoSSaCS 2021.*
2. **A. R. Balasubramanian.** *Parameterized Verification of Coverability in Infinite State Broadcast Networks.* In Information and Computation: 2021. *Special issue of GandALF 2018.*

Conference publications.....

1. **A. R. Balasubramanian.** *Coefficient Synthesis for Threshold Automata.* In Springer, Reachability Problems (RP): 2022
2. **A. R. Balasubramanian.** *Complexity of Coverability in Depth-Bounded Processes.* In LIPIcs, International Conference on Concurrency Theory (CONCUR): 2022
3. **A. R. Balasubramanian, Lucie Guillou, Chana Weil-Kennedy.** *Parameterized Analysis of Reconfigurable Broadcast Networks.* In Springer, International Conference on Foundations of Software Science and Computation Structures (FoSSaCS): 2022
4. **A. R. Balasubramanian.** *Complexity of Coverability in Bounded Path Broadcast Networks.* In LIPIcs, Foundations of Software Technology & Theoretical Computer Science (FSTTCS): 2021
5. **A. R. Balasubramanian, Chana Weil-Kennedy.** *Reconfigurable Broadcast Networks and Asynchronous Shared-Memory Systems are Equivalent.* In EPTCS, Symposium on Games, Automata, Logics and Formal Verification (GandALF): 2021.
6. **A. R. Balasubramanian, K. S. Thejaswini.** *Adaptive Synchronisation of Pushdown Automata.* In LIPIcs, International Conference on Concurrency Theory (CONCUR): 2021

7. **A. R. Balasubramanian, Timo Lang, Revantha Ramanayake.** *Decidability and Complexity in Weakening and Contraction Hypersequent Substructural Logics.* In IEEE Computer Society, Logic in Computer Science (LICS): 2021
8. **A. R. Balasubramanian, Javier Esparza, and Mikhail Raskin.** *Finding Cut-offs in Leaderless Rendez-Vous Protocols is Easy.* In Springer, International Conference on Foundations of Software Science and Computation Structures (FoSSaCS): 2021.
9. **A. R. Balasubramanian.** *Parameterized Complexity of Safety of Threshold Automata.* In LIPIcs, Foundations of Software Technology & Theoretical Computer Science (FSTTCS): 2020
10. **A. R. Balasubramanian, Javier Esparza, and Marijana Lazić.** *Complexity of Verification and Synthesis of Threshold Automata.* In Springer, International Symposium on Automated Technology for Verification and Analysis (ATVA): 2020
11. **A. R. Balasubramanian, Igor Walukiewicz.** *Characterizing consensus in the Heard-Of model.* In LIPIcs, International Conference on Concurrency Theory (CONCUR): 2020
12. **A. R. Balasubramanian.** *Complexity of controlled bad sequences over finite sets of \mathbb{N}^d .* In IEEE Computer Society, Logic in Computer Science (LICS): 2020
13. **A. R. Balasubramanian.** *Parameterized Verification of Coverability in Well-Structured Broadcast Networks.* In EPTCS, Symposium on Games, Automata, Logics and Formal Verification (GandALF): 2018.
14. **A. R. Balasubramanian, Nathalie Bertrand, and Nicolas Markey.** *Parameterized Verification of Synchronization in Constrained Reconfigurable Broadcast Networks.* In Springer, Tools and Algorithms for the Construction and Analysis of Systems (TACAS): 2018.

Invited Talks.....

1. *Complexity of Verification and Synthesis of Threshold Automata* at the 7th Workshop on Formal Reasoning in Distributed Algorithms (FRIDA) 2020.

Honours

- Recipient of the CMI Gold Medal of Excellence for my Masters degree as the student with the best academic record.
- Was awarded the INSPIRE scholarship for my Bachelors degree by the Department of Science and Tech, Govt of India.
- Was among the top 26 students selected to attend the International Olympiad in Informatics Training Camp (IOITC) of India in the year 2014.