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Date of birth: 11 October 1985

Nationality: Indian

EMPLOYMENT

Since July 2019 -	<i>Associate Professor</i> , Chennai Mathematical Institute, Chennai, India
June 2013 - June 2019	<i>Assistant Professor</i> , Chennai Mathematical Institute, Chennai, India
July 2012 - May 2013	<i>Post-doctoral researcher</i> , RWTH-Aachen University, Aachen, Germany

EDUCATION

Sept 2009 - June 2012	Ph.D in Computer Science, University of Bordeaux, France Advisors: Frédéric Herbreteau and Igor Walukiewicz <i>Thesis title: Abstractions for timed automata</i>
Aug 2004 - Aug 2009	Bachelor of Technology and Master of Technology (Dual degree programme) Computer Science and Engineering Indian Institute of Technology Bombay, India

RESEARCH INTERESTS

Automata theory; Formal verification

PHD SUPERVISION

- R Govind (**graduated in 2021**), co-supervision with Frédéric Herbreteau and Igor Walukiewicz, Univ. of Bordeaux
- Sayan Mukherjee (**graduated in 2022**), co-supervision with Paul Gastin, ENS Paris-Saclay
- Soumyajit Paul (**graduated in 2023**), co-supervision with Hugo Gimbert and Olivier Ly, Univ. of Bordeaux
- R Keerthan (**graduated in 2026**)
- Adwitee Roy
- Sanchari Sil, co-supervision with Krishna S, IIT Bombay
- Arnab Sur
- Vaishnavi Vishwanath, co-supervision with Patricia Bouyer-Deçitre, ENS Paris-Saclay

AWARDS AND RECOGNITIONS

- Distinguished paper award at TACAS'26
- Best paper award at NETYS'26
- EATCS best theory paper award at ETAPS'25 for a FoSSaCS'25 paper
- Best paper award at NETYS'25

ADMINISTRATIVE ROLES

Since 2023 *President*, Indian Association for Research in Computing Science (IARCS)
2017 - 2023 *Secretary*, Indian Association for Research in Computing Science (IARCS)

SCIENTIFIC COMMITTEES OF INTERNATIONAL CONFERENCES

Automated Technology for Verification and Analysis (ATVA)	2026, 2025 (co-chair), 2024, 2022, 2017
Computer Aided Verification (CAV)	2024
Concurrency Theory (CONCUR)	2025
Formal Modeling and Analysis of Timed Systems (FORMATS)	2024, 2023, 2020, 2018
Foundations of Software Science and Computation (FoSSaCS)	2026
Foundations of Software Tech. and Theoretical CS (FSTTCS)	2026, 2023, 2017
Games, Automata, Logics and Formal Verification (GandALF)	2026, 2020, 2018
Highlights of Logic, Automata and Games (Highlights)	2025
International Conference on Formal Engineering Methods (ICFEM)	2026, 2025
International Colloquium on Theoretical Aspects of Computing (ICTAC)	2026
Mathematical Foundations of Computer Science (MFCS)	2019
Networked Systems (NETYS)	2025
Reachability Problems (RP)	2021
Verification, Model Checking & Abstract Interpretation (VMCAI)	2026, 2025

SELECTED INVITED TALKS

- Workshop on Synthesis of Complex Parameters, Aarhus, Denmark (2025)
- Complexity, Algorithms, Automata and Logic Meet, Paris, France (2025)
- STCS Seminar, TIFR (2025)
- ACM-India school: an invitation to Algorithmic Game Theory, IMSc Chennai (2024)
- Formal Methods Update Meeting, India (2026, 2023)
- Automata, Concurrency and Timed Systems, Paris (2023)
- Workshop on Symbolic and Numerical Methods for Reachability Analysis, Warsaw, Poland (2022)

INTERNATIONAL WORKSHOPS ORGANIZED

- Focus Programme on Formal Methods and AI, CMI (2026)
- Autobóz workshop, Research camp in automata, Denmark (2025)
- ReLaX workshop on Games, online (2021)
- Advances in Verification (workshop at conference FSTTCS 2020, online)
- Complexity, Algorithms, Automata and Logic Meet (CAALM 2019) at CMI
- Automata, Concurrency and Timed Systems (ACTS) at CMI (2015 and 2017)
- Trends and Challenges in Quantitative Verification, Mysore Park workshop at Infosys Campus, Mysore, India (2016)

JURY OF PHD DISSERTATIONS

Khushraj Madnani, IIT Bombay, Mumbai (2019) *Reviewer*
Amol Wakankar, Homi Bhabha National Institute, Mumbai (2020) *Reviewer*
Victor Roussanaly, IRISA, Rennes, France (2020) *Examiner*
Abhishek Dang, IIT Kanpur (2023) *Reviewer*
Priyanka Golia, IIT Kanpur (2023) *Reviewer*
Stanly Samuel, IISc Bangalore (2025) *Reviewer*

FUNDED PROJECTS

2024 -	Suffix-reading Automata: From practice to theory and back DST-DAAD Indo-German project
2018 - 2021	MATRICES (Mathematical Research Impact Centric Support) funded by SERB, India
2017 - 2019	IoTTTA (Internet of Things Testing using Timed Automata) Indo-French CEFIPRA: DST-CNRS funded research project
2014 - 2017	AVeRTS (Algorithmic Verification of Real-time Systems) Indo-French CEFIPRA: DST-CNRS funded research project
2015 - 2019	Formal verification for industry-scale automotive software funded by Tata Consultancy Services - Innovation Labs
2015 - 2016	Formal Methods for analysis of Embedded Avionics Software Systems funded by Honeywell Technologies

EXTERNAL TEACHING

Instructor for NPTEL MOOC on *Model checking*, funded by Govt. of India

1) July to October 2015, 2017, 2018 2) January - April 2020, 2022

Instructor for *Model checking* course at IIT Palakkad: July to November 2017 and 2018

PUBLICATIONS SUMMARY & RECOGNITIONS

- 8 international journals,
 - 1 invited survey article to ACM Siglog News.
 - 3 articles invited to Special issues of conferences (CAV 2010, CONCUR 2011, GanDALF 2024)
- 32 international conferences,
 - 1 invited article to conference FORMATS 2022

PUBLICATIONS

Edited volumes:

- [1] Meenakshi D'Souza, Komondoor Raghavan, B. Srivathsan: Automated Technology for Verification and Analysis – 23rd International Symposium, ATVA 2025, Bengaluru, India, October 27-31, 2025, Proceedings. Springer LNCS 16145.

Journals:

- [8] R. Keerthan, B. Srivathsan, R. Venkatesh, Sagar Verma: Deterministic Suffix-reading Automata
Logical Methods in Computer Science 22(3) 2026
- [7] S. Akshay, Paul Gastin, R. Govind, B. Srivathsan: Simulations for event-clock automata
Logical Methods in Computer Science 20(3) 2024
- [6] B. Srivathsan: Reachability in timed automata
ACM Siglog News 9(3): 6-28 (2022)
- [5] F. Herbreteau, T.T. Tran, B. Srivathsan, I. Walukiewicz: Why liveness for timed automata is hard, and what we can do about it?
ACM Transactions on Computational Logic 21 (3), pages 17:1 - 17:18, 2020
- [4] F. Herbreteau, B. Srivathsan, I. Walukiewicz: Better abstractions for timed automata
Information and Computation, Volume 251, pages 67 - 90, 2016
- [3] F. Herbreteau, B. Srivathsan: Coarse abstractions make Zeno behaviors difficult to detect
Logical Methods in Computer Science 9(1), 2013
- [2] F. Herbreteau, B. Srivathsan, I. Walukiewicz: Efficient emptiness check for timed Büchi automata
Formal Methods in System Design 40(2), pages 122-146, Springer, 2012
- [1] B. Srivathsan, I. Walukiewicz: An alternate proof of Statman's finite completeness theorem
Information Processing Letters, Volume 112, Issues 14-15, pages 612-616, 2012

Refereed International Conferences:

- [32] R. Govind, S. Krishna, Sanchari Sil, B. Srivathsan: Verifying Sequential Consistency under Bounded Preemptions
Accepted at *NETYS'26* (**Best paper award**)
- [31] R. Govind, S. Krishna, Sanchari Sil, B. Srivathsan: Complexity of Consistency Testing for the Release-Acquire Semantics
Proceedings of *FM'26*, Springer 16557, pg 234-251

- [30] Béatrice Bérard, Benjamin Monmege, B. Srivathsan, Arnab Sur: Synthesising Asynchronous Automata from Fair Specifications
Proceedings of *FoSSaCS'26*, Springer LNCS 16503, pg 133-152
- [29] Kyveli Doveri, Pierre Ganty, B. Srivathsan: A Myhill-Nerode Characterization and Active Learning for One-Clock Timed Automata
Proceedings of *TACAS'26*, Springer LNCS 16505, pg 419-437
- [28] S. Akshay, Prerak Contractor, Paul Gastin, R. Govind, B. Srivathsan: TEMPORA: Efficient Verification of Metric Temporal Properties with Past in the Pointwise Semantics
Proceedings of *TACAS'26*, Springer LNCS 16505, pg 640-659 **(Distinguished paper)**
- [27] R. Keerthan, B. Srivathsan, R. Venkatesh: An Automaton-model to succinctly represent Suffix based specifications of a Concurrent system
Proceedings of *NETYS 2025*, Springer LNCS 15736, pg 129-145 **(Best paper award)**
- [26] Abhinav Garg, Madhavan Mukund, Adwitee Roy, B. Srivathsan, Gautham Viswanathan: Using Communication to bound Clock Drift in Local-Timed Negotiations
Proceedings of *QEST+FORMATS 2025*, Springer LNCS 16143, pg 353-370
- [25] Patricia Bouyer, B. Srivathsan, Vaishnavi Vishwanath: Model-checking real-time systems: revisiting the Alternating Automaton route
Proceedings of *FoSSaCS 2025*, Springer LNCS 15691, pg 399-421 **(EATCS Best theory paper at ETAPS'25)**
- [24] Hugo Gimbert, Soumyajit Paul, B. Srivathsan: Simplifying Imperfect Recall Games
Proceedings of *AAMAS 2025*, 895-903
- [23] S. Akshay, P. Gastin, R. Govind, B. Srivathsan: MITL model-checking via Generalized Timed Automata and a new liveness algorithm
Proceedings of *CONCUR 2024*, volume 311 of LIPICs, pages 5:1 - 5:19
- [22] Kyveli Doveri, Pierre Ganty, B. Srivathan: A Myhill-Nerode Characterization for Timed Automata with Integer Resets
Proceedings of *FSTTCS 2024*, volume 323 of LIPICs, pages 21:1 - 21:18
- [21] R. Keerthan, B. Srivathsan, R. Venkatesh, S. Verma: Deterministic suffix-reading automata
Proceedings of *GanDALF 2024*, volume 409 of EPTCS, pages 70 - 87
- [20] S. Akshay, P. Gastin, R. Govind, A. R. Joshi, B. Srivathsan: A unified model for real-time systems: Symbolic techniques and implementation
Proceedings of *CAV 2023*, Springer Lecture Notes in Computer Science 13964, pages 266 - 288
- [19] M. Mukund, A. Roy, B. Srivathsan: A local-time semantics for negotiations
Proceedings of *FORMATS 2023*, Springer Lecture Notes in Computer Science 14138, pg 105 - 121
- [18] F. Herbreteau, B. Srivathsan, I. Walukiewicz: Checking timed Büchi automata emptiness using the local-time semantics
Proceedings of *CONCUR 2022*, volume 243 of LIPICs, pages 12:1 - 12:24
- [17] S. Akshay, P. Gastin, R. Govind, B. Srivathsan: Simulations for Event-Clock Automata
Proceedings of *CONCUR 2022*, volume 243 of LIPICs, pages 13:1 - 13:18
- [16] P. Bouyer, Paul Gastin, F. Herbreteau, O. Sankur, B. Srivathsan: Zone-based verification of timed automata: extrapolations, simulations and what next?
Invited article to *FORMATS 2022*, Springer Lecture Notes in Computer Science 13465, pages 16-42
- [15] R. Govind, F. Herbreteau, B. Srivathsan, I. Walukiewicz: Abstractions for the local-time semantics of timed automata: a foundation for partial-order methods
Proceedings of *LICS 2022*, pages 24:1 - 24:14

- [14] P. Gastin, S. Mukherjee, B. Srivathsan: Reachability in updatable timed automata made faster and more effective
Proceedings of *FSTTCS 2020*, volume 182 of LIPICs, pages 47:1 - 47:17
 - [13] H. Gimbert, S. Paul, B. Srivathsan: A Bridge between polynomial optimization and games with imperfect recall
Proceedings of *AAMAS 2020*, pages 456 - 464
 - [12] R. Govind, F. Herbreteau, B. Srivathsan, I. Walukiewicz: Revisiting local time semantics for networks of timed automata
Proceedings of *CONCUR 2019*, volume 140 of LIPICs, pages 16:1 - 16:15
 - [11] P. Gastin, S. Mukherjee, B. Srivathsan: Fast algorithms for handling diagonal constraints in timed automata
Proceedings of *CAV 2019*, Springer Lecture notes in Computer Science 11561, pages 41 - 59
 - [10] P. Gastin, S. Mukherjee, B. Srivathsan: Reachability in timed automata with diagonal constraints
Proceedings of *CONCUR 2018*, volume 118 of LIPICs, pages 28:1 - 28:17
 - [9] F. Herbreteau, T.T. Tran, B. Srivathsan, I. Walukiewicz: Why liveness for timed automata is hard, and what we can do about it?
Proceedings of *FSTTCS 2016*, LIPICs: 48:1 - 48:14
 - [8] M. Praveen, B. Srivathsan: Nesting depth of operators in graph database queries - Expressiveness vs evaluation complexity
Proceedings of *ICALP 2016*, LIPICs: 117:1 - 117:14
 - [7] M. Praveen, B. Srivathsan: Defining relations on graphs - How hard is it in the presence of node partitions?
Proceedings of *ACM PODS 2015*, pages 159 - 172
 - [6] F. Herbreteau, B. Srivathsan, I. Walukiewicz: Lazy abstractions for timed automata
Proceedings of *CAV 2013*, Springer Lecture notes in Computer Science 8044, pages 990 - 1005
 - [5] F. Herbreteau, B. Srivathsan, I. Walukiewicz: Better abstractions for timed automata
Proceedings of *IEEE LICS 2012*, pages 375 - 384
 - [4] F. Herbreteau, B. Srivathsan: Coarse abstractions make Zeno behaviours difficult to detect
Proceedings of *CONCUR 2011*, Springer Lecture notes in Computer Science 6901, pages 92 - 107
 - [3] F. Herbreteau, B. Srivathsan, I. Walukiewicz: Using non-convex approximations for efficient analysis of timed automata
Proceedings of *FSTTCS 2011*, LIPICs: 78 - 89
 - [2] F. Herbreteau, B. Srivathsan: Efficient on-the-fly emptiness check for timed Büchi automata
Proceedings of *ATVA 2010*, Springer Lecture notes in Computer Science 6252, pages 218 - 232
 - [1] F. Herbreteau, I. Walukiewicz: Efficient emptiness check for timed Büchi automata
Proceedings of *CAV 2010*, Springer Lecture notes in Computer Science 6174, pages 148 - 161
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