Matteo Sammartino

Personal Information

Born: Catania, Italy, 10/11/1984
Citizenship: Italian
Email: matteo.sammartino@rhul.ac.uk
Job title: Senior Lecturer
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Google Scholar Page DBLP page

Research Interests

- Formal semantics of programming languages
- Algebraic and coalgebraic specification
- Formal methods for concurrency
- Infinite-state models of computation
- Integration of learning and verification

Education and Qualifications

1/2010-12/2013 **PhD in Computer Science**, *University of Pisa*, Italy
Thesis title: A Network-Aware Process Calculus for Global Computing and its Categorical Framework
Supervisor: Prof. Ugo Montanari

5/2009-12/2009 **Scholarship in the EU FP6 Project SENSORIA**, *University of Pisa*, Italy
Topic: Semantics of systems with dynamic allocation and de-allocation of resources

1/2007-4/2009 **Master's degree in Computer Science**, *University of Pisa*, Italy
Thesis title: Saturated Transition Systems for Presheaf Models
Supervisor: Prof. Ugo Montanari
Graduation mark: 110/110 cum laude

9/2003-12/2006 **Bachelor's degree in Computer Science**, *University of Pisa*, Italy
Thesis Title: Un approccio innovativo ai problemi di flusso multicommodity basato sulla lagrangiana aumentata (An innovative approach to multicommodity flow problems based on augmented lagrangian)
Supervisor: Prof. Antonio Frangioni
Graduation mark: 110/110 cum laude

Employment History

01/2020-present **Senior Lecturer**, *Computer Science Department, Royal Holloway University of London*, UK

11/2018-12/2019 **Senior Research Associate and Teaching Fellow**, *Computer Science Department, UCL*, UK

1/2015-12/2015 **Postdoc researcher**, *Institute for Computing and Information Sciences, Radboud University*, Nijmegen, The Netherlands
Funded by the NWO project *Practical Coinduction*

1/2013 - 12/2014 **Research fellow**, *Computer Science Department, University of Pisa*, Italy
Funded by the EU FP7 Project *ASCENS*
Topic: Resource-based process calculi for global computing

Visiting positions

2016 **Visiting researcher**, *Simons Institute for the Theory of Computing*, Berkeley, CA, USA
Participant in the program *Logical Structures in Computation*

Supervision

PhD Students

2024-present **Connor Pfreundschuh**, Computer Science Department,RHUL, UK

2018-2023 **Stefan Zetzsche**, Computer Science Department,UCL, UK

2016-2020 **Gerco van Heerdt**, Computer Science Department, UCL, UK

Postdocs

2024 - present **Leo Henry**, Computer Science Department, RHUL, UK

2022 **Amir Naseredini**, Computer Science Department, RHUL, UK

2020 - 2021 **Thomas Neele**, Computer Science Department, RHUL, UK

Grants and Awards

Grants

2019 ∼ **£690k EPSRC Standard Grant**
Project: Verification of Hardware Concurrency via Model Learning (CLeVer)
Partners: RHUL, UCL, ARM Ltd.

2018 ∼ **£98k grant for a PhD studentship**
Funder: GCHQ, via the Research Institute in Verified Trustworthy Software Systems

Awards

2020 **Best Paper Award at ICTAC 2020**

Invitation to Conferences

2023 **Model Learning for Improved Trustworthiness in Autonomous Systems**, *Dagstuhl Seminar*

2016 **Bellairs Workshop**, *McGill University*, Barbados

Talks

Invited

2019 **Coalgebras for Causality**, *4th Workshop on Formal Reasoning about Causation, Responsibility, & Explanations in Science & Technology (CREST)*, ETAPS workshop, Prague, Czech Republic

2017 **Learning Nominal Automata**, *RISE Seminar Cycle*, IST Austria, Vienna, Austria

Conferences and Workshops

2018 **Automated Black-box Verification of Networking Systems**, *VeTSS PhD School and Sixth Workshop on Formal Methods and Tools for Security (FMATS)*, Microsoft Research, Cambridge, UK

2017 **CALF: Categorical Automata Learning Framework.**, *LiVe (Learning in Verification)*, Uppsala, Sweden

2017 **Learning Nominal Automata.**, *POPL (Principles of Programming Languages)*, Paris, France

2015 **Dynamic Programming on Nominal Graphs.**, *GaM (Graph as Models)*, London, UK

2014 **A Class of Automata for the Verification of Infinite, Resource-Allocating Behaviours.**, *TCG (Trustworthy Global Computing)*, Rome, Italy

2012 **Network-Conscious π-calculus: a Concurrent Semantics.**, *MFPS (Mathematical Foundations of Programming Semantics)*, Bath, UK

Seminars

2017 **CALF: Categorical Automata Learning Framework**, *6th South of England Regional Programming Language Seminar (S-REPLS)*, UCL, UK

2016 **Learning Nominal Automata**, *Logic Lounge Cycle*, Simons Institute for the Theory of Computing, University of California, Berkeley, USA

2015 **A Coalgebraic Semantics for Causality in Petri Nets**, *Brouwer Seminar Cycle*, Radboud University, Nijmegen, The Netherlands

2014 **Presheaf Models for Nominal Calculi**
Delivered at: ENS Lyon, France; Aarhus University, Denmark; Radboud University, Nijmegen, The Netherlands, in the *Brouwer Seminar Cycle*

2012-2014 **Seminars at meetings of research projects**
- *Modeling PASTRY Distributed Hash Tables with Resource-Conscious Pi-Calculus*, University of Bologna (2014), PRIN CINA project;
- *Revisiting Causality* , Volkswagen, Braunschweig (2014), EU FP7 ASCENS project;
- *Operational models for resouce-aware calculi*, University of Pisa (2013), PRIN CINA project;
- *Resources in Cloud Computing*, Fraunhofer Institute, Berlin (2012), EU FP7 ASCENS project.

Professional Service

Organisation of events

2023 **Co-organiser of the Verification Mentoring Workshop**, *Affiliated with CAV 2023*

2022 **Co-organiser of the FLoC 2022 Mentoring Workshop**

2018-present **Co-organiser and co-chair of the Learning and Automata (LearnAut) Workshop**
Affiliated with: FLoC 2018, LICS 2019, ICALP 2022, ICALP 2024

Committee Memberships

CMCS 2024, ICGI 2021-2023 PC, ICE 2018-2023 PC, CREST 2019 PC, RADICAL 2017 PC, POPL 2017 Artefact Evaluation Committee.

Reviewing Activity

Journals	Information and Computation, Journal of Logical and Algebraic Methods in Programming (Elsevier), Transactions on Modeling and Computer Simulation (ACM), Scientific Annals of Computer Science, Science of Computer Programming (Elsevier), Service Oriented Computing and Applications (Springer), Fundamenta Informaticæ.
Conferences & Workshops	TACAS 2024, CSL 2024, PPDP 2023, FOSSACS 2021, MFCS 2020, LICS 2020, FOSSACS 2020, ESOP 2020, FSCD 2019, TbiLLC 2019, ESOP 2019, LPAR 2018, CSL 2018, FORTE 2018, FOSSACS 2018, MFCS 2017, CALCO 2017, FORTE 2017, FOSSACS 2017, FORTE 2016, CONCUR 2015, LICS 2015, FSEN 2015, COORDINATION 2014, ICALP 2014, PDP 2014, LATA 2014, WRLA 2014, APLAS 2014, FORTE 2012, TCS 2012.
Grant Proposals	National Science Center, Poland (2022)