

Davide Sangiorgi

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Research

Research focuses on the semantics of programming languages, in particular languages for concurrent and distributed systems, developing models and techniques for the specification and analysis of software for such systems. The main mathematical tools are process calculi, modal and temporal logics, theories of behavioural equivalence, coinduction. These models are also studied as a basis for the design of new programming language constructs.

Related research interests include high-level programming languages, especially functional ones, and type systems, both as specification mechanisms and as tools for structuring programs and reducing programming errors.

Positions

- October 2002–present: Full Professor of Computer Science at the University of Bologna, Italy.
- January 1995–September 2002: ‘Chargé de Recherche’, then as ‘Directeur de Recherche’ at the Institut national de recherche en informatique et automatique (INRIA), France.
- October 1992–December 1994: Research Associate, Department of Computer Science, University of Edinburgh, UK.
- September 1989–September 1992: PhD student, Department of Computer Science, University of Edinburgh, UK.
- January 1988–August 1989: Assistant Researcher, University of Pisa (I).
- **Visiting positions (one to six months):** University of Sendai (Japan), University of Oxford (UK), University of Genova (Italy), The Isaac Newton Institute for Mathematical Sciences, Cambridge (UK), Centrum voor Wiskunde en Informatica (CWI), Amsterdam (NL), INRIA-Paris (F).

Education

- PhD in Computer Science, University of Edinburgh (UK), 1993. Supervisor Prof. Robin Milner.
- Laurea (Master) in Computer Science, University of Pisa (Italy), 1987. Supervisor Prof. Andrea Maggiolo Schettini.

Activities

- 2010–present: Founder and Head of OLAS (formerly FOCUS, 2010–2022), a joint research team of INRIA and the Department of Computer Science and Engineering of the University of Bologna, devoted to programming languages and concurrency theory (<https://www.inria.fr/en/olas>).
- Coordinator of the PhD Programme in Computer Science and Engineering of the University of Bologna, 2019–2022;
- Coordinator of the Degree Programme in ‘Informatica per il Management’, 2013–2016.
- Member of the Council of the Italian Chapter of the European Association for Theoretical Computer Science, 2003–2010;
- Member of the Scientific Committee of GRIN (the association grouping the Italian Computer Science academics), 2012–2015;
- Site leader or principal investigator in several national and European research projects.

Awards and Memberships

- Fellow of the European Association for Theoretical Computer Science (EATCS), 2021;
- Member of Academia Europaea (section Informatics), 2011;
- Member of Accademia delle Scienze di Bologna, 2022;
- Outstanding Service Award from IFIP (International Federation for Information Processing), 2012;
- ‘LICS Test-of-Time Award’, 2013 (for a paper published twenty years earlier at the conference ‘Logic in Computer Science’);
- ‘CONCUR Test-of-Time Award’, 2020 (for a paper published twenty-five years earlier at the conference ‘Concurrency Theory’);
- PPDP ‘10-Year Most Influential Paper Award’, 2022 (for a paper published ten years earlier at the conference ‘Principles and Practice of Declarative Programming’)
- Distinguished paper awards, in 2023 and 2026, for papers published in the conference ‘Logic in Computer Science’.
- IFIP (International Federation for Information Processing) Working Group 2.2 (‘Formal Description of Programming Concepts’): Member; Chair (2004–2011). IFIP Working Group 1.8 (‘Concurrency Theory’): Member.

- **Editorial Board of International Journals:**

- Present: Acta Informatica, Distributed Computing, Foundations and Trends in Programming Languages, Springer Nature Computer Science.
- Past: TheoretiCS, Logical Methods in Computer Science, RAIRO - Theoretical Informatics and Applications.

Publications

- More than 160 refereed publications (DBLP, July 2026);
- Three research monographs published by Cambridge University Press:
 1. D. Sangiorgi and D. Walker, The π -calculus: A Theory of Mobile Processes, Cambridge University Press.
 2. D. Sangiorgi, Introduction to Bisimulation and Coinduction, Cambridge University Press;
 3. D. Sangiorgi and J. Rutten (eds), Advanced Topics in Bisimulation and Coinduction, Cambridge University Press;
- Editor of 4 conference proceedings;
- h-index: 49 (Google Scholar, July 2026);
- More than 12,500 citations (Google Scholar, July 2026).

Selected invited lectures at international conferences

- ACM SIGPLAN-SIGACT Symposium on Principles of Programming Languages (POPL);
- Annual IEEE/ACM Symposium on Logic in Computer Science (LICS);
- Conference on Concurrency Theory (CONCUR, twice);
- European Joint Conferences on Theory and Practice of Software (ETAPS);
- EACSL Annual Conference on Computer Science Logic (CSL);
- Colloquium on Theoretical Aspects of Computing (ICTAC);
- Int. Symposium on Fundamentals of Software Engineering (FSEN);
- Federated conferences on Distributed Computing Techniques;
- Conference on Mathematical Foundations of Programming Semantics (MFPS, twice);
- Symposium on Formal Methods for Components and Objects;
- Latin American Symposium on Mathematical Logic;
- Software Engineering and Formal Methods (SEFM).

Other conference and workshop activities

- Served repeatedly on the programme committees of the principal international conferences in programming languages and concurrency theory.
- General Chair or Programme Chair of several international conferences and workshops, including Trustworthy Global Computing, Formal Description of Programming Concepts, Concurrency Theory, IFIP Theoretical Computer Science, ICALP Colloquium on Automata, Languages and Programming.
- Member of the Steering Committee of the Int. Conference on Concurrency Theory, since 2018.

Advanced Courses and PhD students

- About 20 advanced courses in international schools for PhDs and young researchers;
- Supervised more than 15 PhD students;
- Member of PhD committees in various European countries.