

# Sandrine Blazy

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🌐 <http://people.irisa.fr/Sandrine.Blazy>



## Professional activities

- 2009 – . . . . **Full professor of Computer Science.** University of Rennes, IRISA laboratory.  
Member of Epicure, a joint team with Inria, CNRS, University of Rennes and ENS Rennes
- 2021 – . . . . **Deputy Director of IRISA** (CNRS UMR 6074)
- 2020 – . . . . **Member of the GDR GPL scientific committee**
- 2015 – . . . . **Member of the IFIP group "W.G. 1.9/2.15 on verified software"**  
**Member of the IFIP group "W.G. 2.11 on program generation"**
- 2023 – . . . . **Member of the editorial board of the LMCS journal**

## Awards

- 2023 **CNRS Silver Medal**  
**Lucas award from FME board** for a highly influential paper published at FM 2006 with Z.Dargaye and X.Leroy
- 2022 **ACM SIGPLAN Programming Languages Software Award**, with X. Leroy, Z. Dargaye, J.H. Jourdan, M.Schmidt, B. Schommer, and J.B. Tristan for the development of the CompCert verified compiler
- 2021 **ACM Software System Award**, with X. Leroy, Z. Dargaye, J.H. Jourdan, M. Schmidt, B. Schommer, and J.B. Tristan
- 2011 **La Recherche award in Information Sciences**, La Recherche magazine, with X.Leroy, Z.Dargaye and J.B. Tristan

## Past professional activities

- 2016 – 2021 **Member of the national committee for scientific research** (CoNRS)
- 2015 – 2018 **Co-head of the LTP group** (Languages, Types, Proofs) of the GDR GPL
- 2013 – 2017 **Co-head of the research master in computer science** at the University of Rennes, shared by 9 Breton universities and engineering schools
- 2012 – 2013 **Scientific director of the languages and software engineering department** of IRISA
- 2009 – 2013 **Head of the Information Systems Security track** of the computer science Master's degree
- 2004 – 2006 **Sabbatical**, Inria Paris
- 1994 – 2009 **Lecturer**, ENSIIE

## Education

- 2008 **Habilitation to supervise research**, University of Évry Val d'Essonne, "*Formal semantics*"
- 1993 **Ph.D.**, CNAM, "*Program specialisation as an aid to the understanding of Fortran programs*"
- 1990 **M.Sc. in computer science**, Sorbonne University  
**Engineering degree in computer science**, ENSIIE

## Research interests

Keywords formal semantics of programming languages, deductive verification, verified compilation, static analysis, software security

## Advising

2022 – . . . .	Clément Chavanon, " <i>Refinement of formal specification for trusted secure environments</i> " (with F.Besson) Alain Delaët, " <i>Interactive proof of programs derived from legislative specifications</i> " (with D.Merigoux) Tony Law, " <i>Verified compilation for high-level synthesis</i> " (with D.Demange) Roméo La Spina, " <i>Data-flow and dependency analysis for verified compilation</i> " (with D.Demange)
2019 – 2022	Aurèle Barrière, " <i>Formal verification of just-in-time compilation</i> " (with D.Pichardie)
2018 – 2021	Rémi Hutin, " <i>Verified secure compilation against timing side-channels</i> " (with D.Pichardie)
. . . . – 2018	Supervised 7 PhD students who graduated in 2018, 2017, 2016, 2015, 2015, 2014 and 2010 Supervised 26 Master's students

## Recent professional service

### Conference organisation

2024, 2025	CPP conference co-chair
2013, 2015, 2017	CoqPL'17 workshop co-chair, ITP'13 and SAS'15 conference co-chair
2016	VSTTE conference co-chair, and PLMW@SPLASH mentoring workshop co-chair

### Program committee member

2021 – 2024	FMTea, Types, ESOP, POPL, ECOOP, Types, ITP, FM, ProLaLa
2019 – 2020	GPCE, TyDe, ICFP (ERC), PriSC, POPL, APLAS, ITP
2017 – 2018	CoqPL, CPP, IFL, SRC@PLDI, TFP, VSTTE, GPCE, LOPSTR, ICFP, Euro S&P

### Jury member

2023	French Open Science award for free research software chair of the jury
2022 – 2024	ACM SIGPLAN Robin Milner Young Researcher Award member of the jury

## Recent selected invited talks

2024	Form mechanized semantics to verified compilation, ETAPS unifying keynote
2023	CompCert: a journey through the landscape of mechanized semantics for verified compilation, CPP
2022	Obfuscation du logiciel : brouiller le code pour protéger les programmes, Collège de France
2021	A tutorial on teaching deductive verification with Why3, Tutorial Series of the FME Teaching Committee
2020	From Verified Compilation to Secure Compilation: a Semantic Approach, PLAS
2019	Formal Verification of a Constant-Time Preserving C Compiler, Verified software workshop, Newton institute

## Publications

Journals	Co-author of 16 articles, including Journal on Automated Reasoning (JAR)
Conferences	Co-author of 48 peer-reviewed papers, incl. POPL, ICFP, ESOP, ITP, IJCAR, LCTES, CSF, CPP
Books	Co-author of a book chapter
Proceedings	Co-editor of a special issue of JAR, and of 4 conference proceedings (ACM and LNCS)

## Recent lecturing

Current	software foundations (M1), deductive verification (L3)
Previously	software vulnerabilities (M2), static analysis (M1), functional programming (L3)