Patrick Baillot

FSCD Steering Committee Election, 2023

Brief bio

I have been a CNRS researcher in France since 2001 and currently work at the CRIStAL lab at the University of Lille, after previous positions in Paris and Lyon. My research interests revolve around logic and type systems, with a particular taste for the characterization of complexity properties for functional languages and concurrent process calculi. I enjoy using approaches coming from proof-theory, linear logic, sized types, semantic interpretations ...
I served on the PC of several conferences, including FSCD, LICS, FoSSaCS, CSL and from 2010 to 2020 on the steering committee of the workshop DICE (*Developments in Implicit Computational complexity*).
Beside this research activity I have been director of the computer science lab LIP in Lyon from 2017 to 2020, and since 2022 I am a scientific advisor at the CNRS Institute for Information Sciences and Technologies in Paris.

Election statement

I have been a regular participant and PC member of TLCA/RTA/RDP and then FSCD, and I appreciate the scope broadening of FSCD and its dynamics. If elected I would like to contribute to the continued effort of making FSCD a well-recognized, innovative, open-minded event. I believe in the importance of co-located events, being workshops or conferences, so as to reinforce the attractivity of the event and mixing of communities. I am also sensible to the environmental impact of travels and interested by reflexions on how to conciliate the utility of conferences and the limitation of their carbon footprint.

Selected publications

— j. wunder, A. Azevedo de Amorim, P. Baillot, M. Gaboardi. *Bunched Fuzz : Sensitivity for Vector Metrics*. Proceedings of ESOP 2023 : 451-478
— P. Baillot, A. Ghyselen, N. Kobayashi. *Sized Types with Usages for Parallel Complexity of Pi-Calculus Processes*. Proceedings of CONCUR 2021 : 34 :1-34 :22
— P. Baillot, G. Barthe, U. Dal Lago. *Implicit Computational Complexity of Subrecursive Definitions and Applications to Cryptographic Proofs*. J. Autom. Reason. 63(4) : 813-855 (2019)
— P. Baillot, E. De Benedetti, S. Ronchi Della Rocca. *Characterizing polynomial and exponential complexity classes in elementary lambda-calculus*. Inf. Comput. 261 : 55-77 (2018)
— P. Baillot, A. Das. *Free-Cut Elimination in Linear Logic and an Application to a Feasible Arithmetic*. Proceedings of CSL 2016 : 40 :1-40 :18
— P. Baillot, K. Terui. *Light types for polynomial time computation in lambda calculus*. Inf. Comput. 207(1) : 41-62 (2009)
— P. Baillot. *From Proof-Nets to Linear Logic Type Systems for Polynomial Time Computing* (invited paper). Proceedings of TLCA 2007 : 2-7