# Frederic Loulergue

List of Publications by Year
in descending order

| 80 papers | 434 citations | 933447<br>10 h-index | 888059<br>17 g-index |
|---|---|---|---|
| 82 all docs | 82 docs citations | 82 times ranked | 114 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Bulk Synchronous Parallel ML: Modular Implementation and Performance Prediction. Lecture Notes in Computer Science, 2005, , 1046-1054. | 1.3 | 53 |
| 2 | A calculus of functional BSP programs. Science of Computer Programming, 2000, 37, 253-277. | 1.9 | 31 |
| 3 | A static analysis for Bulk Synchronous Parallel ML to avoid parallel nesting. Future Generation Computer Systems, 2005, 21, 665-671. | 7.5 | 21 |
| 4 | Handling Data-skew Effects in Join Operations Using MapReduce. Procedia Computer Science, 2014, 29, 145-158. | 2.0 | 21 |
| 5 | Bulk synchronous parallel ML with exceptions. Future Generation Computer Systems, 2010, 26, 486-490. | 7.5 | 18 |
| 6 | Calculating Parallel Programs in Coq Using List Homomorphisms. International Journal of Parallel Programming, 2017, 45, 300-319. | 1.5 | 16 |
| 7 | Systematic Development of Correct Bulk Synchronous Parallel Programs. , 2010, , . |  | 14 |
| 8 | Ghosts for Lists: A Critical Module of Contiki Verified in Frama-C. Lecture Notes in Computer Science, 2018, , 37-53. | 1.3 | 14 |
| 9 | A Verified Bulk Synchronous Parallel ML Heat Diffusion Simulation. Procedia Computer Science, 2011, 4, 36-45. | 2.0 | 13 |
| 10 | Towards Full Proof Automation in Frama-C Using Auto-active Verification. Lecture Notes in Computer Science, 2019, , 88-105. | 1.3 | 11 |
| 11 | OSL: Optimized Bulk Synchronous Parallel Skeletons on Distributed Arrays. Lecture Notes in Computer Science, 2009, , 436-451. | 1.3 | 11 |
| 12 | OSL: An Algorithmic Skeleton Library with Exceptions. Procedia Computer Science, 2013, 18, 260-269. | 2.0 | 10 |
| 13 | Program Calculation in Coq. Lecture Notes in Computer Science, 2011, , 163-179. | 1.3 | 10 |
| 14 | Parallel Superposition for Bulk Synchronous Parallel ML. Lecture Notes in Computer Science, 2003, , 223-232. | 1.3 | 9 |
| 15 | Parallel programming and performance predictability with Orléans Skeleton Library. , 2011, , . |  | 8 |
| 16 | A Polymorphic Type System for Bulk Synchronous Parallel ML. Lecture Notes in Computer Science, 2003, , 215-229. | 1.3 | 8 |
| 17 | Parallel Juxtaposition for Bulk Synchronous Parallel ML. Lecture Notes in Computer Science, 2003, , 781-788. | 1.3 | 8 |
| 18 | Formal Semantics of DRMA-Style Programming in BSPlib. , 2007, , 1122-1129. |  | 8 |

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| 19 | Formal derivation and extraction of a parallel program for the all nearest smaller values problem. , 2014, , . | | 7 |
| 20 | Replicated Synchronization for Imperative BSP Programs. Procedia Computer Science, 2017, 108, 535-544. | 2.0 | 7 |
| 21 | A Java Framework for High Level Parallel Programming Using Powerlists. , 2017, , . | | 7 |
| 22 | A Lesson on Verification of IoT Software with Frama-C. , 2018, , . | | 7 |
| 23 | A Verified Generate-Test-Aggregate Coq Library for Parallel Programs Extraction. Lecture Notes in Computer Science, 2014, , 258-274. | 1.3 | 7 |
| 24 | A FUNCTIONAL LANGUAGE FOR DEPARTMENTAL METACOMPUTING. Parallel Processing Letters, 2005, 15, 289-304. | 0.6 | 6 |
| 25 | Implementing Algorithmic Skeletons with Bulk Synchronous Parallel ML. , 2017, , . | | 6 |
| 26 | A Formal Programming Model of Orléans Skeleton Library. Lecture Notes in Computer Science, 2011, , 40-52. | 1.3 | 6 |
| 27 | Functional parallel programming with explicit processes: Beyond SPMD. Lecture Notes in Computer Science, 1997, , 530-537. | 1.3 | 5 |
| 28 | Functional Parallel Programming with Revised Bulk Synchronous Parallel ML. , 2010, , . | | 5 |
| 29 | A BSPlib-style API for Bulk Synchronous Parallel ML. Scalable Computing, 2017, 18, . | 1.0 | 5 |
| 30 | Managing arbitrary distributions of arrays in Orl&#x00E9;ans Skeleton Library. , 2013, , . | | 4 |
| 31 | Nested Atomic Sections with Thread Escape: An Operational Semantics. , 2013, , . | | 4 |
| 32 | Development effort and performance trade-off in high-level parallel programming. , 2014, , . | | 4 |
| 33 | Conc2Seq: A Frama-C Plugin for Verification of Parallel Compositions of C Programs. , 2016, , . | | 4 |
| 34 | A Verified Accumulate Algorithmic Skeleton. , 2017, , . | | 4 |
| 35 | A Cloud Brokerage Solution: Formal Methods Meet Security in Cloud Federations. , 2018, , . | | 4 |
| 36 | PySke: Algorithmic Skeletons for Python. , 2019, , . | | 4 |

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| 37 | A Parallel Virtual Machine for Bulk Synchronous Parallel ML. Lecture Notes in Computer Science, 2003, , 155-164. | 1.3 | 4 |
| 38 | Programming with BSP Homomorphisms. Lecture Notes in Computer Science, 2013, , 446-457. | 1.3 | 4 |
| 39 | Logic against ghosts. , 2019, , . | | 4 |
| 40 | Soundness of a Dataflow Analysis for Memory Monitoring. ACM SIGAda Ada Letters, 2019, 38, 97-108. | 0.1 | 4 |
| 41 | Concrete data structures and functional parallel programming. Theoretical Computer Science, 2001, 258, 233-267. | 0.9 | 3 |
| 42 | Towards verified cloud computing environments. , 2012, , . | | 3 |
| 43 | Verified Runtime Assertion Checking forÂMemory Properties. Lecture Notes in Computer Science, 2020, , 100-121. | 1.3 | 3 |
| 44 | BSÎ»ppp: Functional BSP Programs on Enumerated Vectors. Lecture Notes in Computer Science, 2000, , 355-363. | 1.3 | 3 |
| 45 | Type system for a safe execution of parallel programs in BSML. , 2011, , . | | 2 |
| 46 | Powerlists in Coq: Programming and Reasoning. , 2013, , . | | 2 |
| 47 | Implementing Powerlists with Bulk Synchronous Parallel ML. , 2014, , . | | 2 |
| 48 | Tutorial: Secure Your Things: Secure Development of IoT Software with Frama-C. , 2018, , . | | 2 |
| 49 | Towards Automatically Optimizing PySke Programs. , 2019, , . | | 2 |
| 50 | Transforming powerlist-based divide-and-conquer programs for an improved execution model. Journal of Supercomputing, 2020, 76, 5016-5037. | 3.6 | 2 |
| 51 | A Verified Library of Algorithmic Skeletons on Evenly Distributed Arrays. Lecture Notes in Computer Science, 2012, , 218-232. | 1.3 | 2 |
| 52 | PREFACE: Special Issue on High-Level Parallel Programming and Applications. Parallel Processing Letters, 2003, 13, 313-316. | 0.6 | 1 |
| 53 | Nested atomic sections with thread escape. , 2014, , . | | 1 |
| 54 | Automated Generation of BSP Automata. Parallel Processing Letters, 2017, 27, 1740002. | 0.6 | 1 |

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| 55 | Reflections on the Design of Parallel Programming Frameworks. Communications in Computer and Information Science, 2021, , 154-181. | 0.5 | 1 |
| 56 | Automatic Optimization of Python Skeletal Parallel Programs. Lecture Notes in Computer Science, 2020, , 183-197. | 1.3 | 1 |
| 57 | Bulk Synchronous Parallel ML with Exceptions. , 2007, , 33-42. | | 1 |
| 58 | Experiments in Parallel Matrix Multiplication on Multi-core Systems. Lecture Notes in Computer Science, 2012, , 362-376. | 1.3 | 1 |
| 59 | Parallel programming with Coq. , 2019, , . | | 1 |
| 60 | Experience Report: Teaching Code Analysis and Verification Using Frama-C. Electronic Proceedings in Theoretical Computer Science, EPTCS, 0, 349, 69-75. | 0.8 | 1 |
| 61 | Introduction to the special issue on semantics and costs models for high-level parallel programming. Computer Languages, Systems and Structures, 2007, 33, 79-81. | 1.4 | 0 |
| 62 | An efficient skew-insensitive algorithm for join processing on grid architectures. , 2011, , . | | 0 |
| 63 | A formal semantics of nested atomic sections with thread escape. Computer Languages, Systems and Structures, 2015, 42, 2-21. | 1.4 | 0 |
| 64 | Nested atomic sections with thread escape. , 2015, , . | | 0 |
| 65 | Imperative BSPlib-style Communications in BSML. Procedia Computer Science, 2017, 108, 2368-2372. | 2.0 | 0 |
| 66 | Towards a Verified Parallel Implementation of Frequent Itemset Mining. , 2017, , . | | 0 |
| 67 | Formalization of a Big Graph API in Coq. , 2017, , . | | 0 |
| 68 | MMFilter : A CHR-Based Solver for Generation of Executions under Weak Memory Models. Computer Languages, Systems and Structures, 2018, 53, 121-142. | 1.4 | 0 |
| 69 | Towards the Generation of Correct Java Programs (Research Poster). , 2018, , . | | 0 |
| 70 | Parallel Programming with OCaml: A Tutorial. , 2018, , . | | 0 |
| 71 | Strong Security Guarantees: From Alloy to Coq (Research Poster). , 2018, , . | | 0 |
| 72 | Verified Programs for Frequent Itemset Mining. , 2018, , . | | 0 |

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|---|---------|-----|-----------|
| 73 | Interactive Bulk Synchronous Parallel Functional Programming in a Browser. , 2018, , . | | 0 |
| 74 | New List Skeletons for the Python Skeleton Library. , 2019, , . | | 0 |
| 75 | Verification of a Heat Diffusion Simulation Written with Orléans Skeleton Library. Lecture Notes in Computer Science, 2012, , 91-100. | 1.3 | 0 |
| 76 | Introduction to the Special Issue on Practical Aspects of High-Level Parallel Programming. Scalable Computing, 2017, 18, . | 1.0 | 0 |
| 77 | From Concurrent Programs to Simulating Sequential Programs: Correctness of a Transformation. Electronic Proceedings in Theoretical Computer Science, EPTCS, 0, 253, 109-123. | 0.8 | 0 |
| 78 | A First Step in the Translation of Alloy to Coq. Lecture Notes in Computer Science, 2019, , 455-469. | 1.3 | 0 |
| 79 | Divide-and-Conquer Parallel Programming with Minimally Synchronous Parallel ML. , 2008, , 1078-1085. | | 0 |
| 80 | Semantics of an Exception Mechanism for Bulk Synchronous Parallel ML. , 2007, , . | | 0 |