Research output

An axiomatization of information flow measures

Schedulers and finishers: on generating and filtering the behaviours of an event structure

A new proof rule for almost-sure termination

An algebraic approach for reasoning about information flow

Conditioning in probabilistic programming

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Processing text for privacy: an information flow perspective

Privacy in elections: How small is “small”? 

Algebra for quantitative information flow

Formal analysis of the information leakage of the DC-nets and crowds anonymity protocols
Reasoning about distributed secrets

Probabilistic rely-guarantee calculus

Axioms for information leakage

Program refinement, perfect secrecy and information flow

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Conditioning in Probabilistic Programming

Abstract hidden Markov models: a monadic account of quantitative information flow

Hidden-Markov program algebra with iteration


Additive and multiplicative notions of leakage, and their capacities

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Operational versus weakest pre-expectation semantics for the probabilistic guarded command language

Abstractions of non-interference security: Probabilistic versus possibilistic

Abstract channels and their robust information-leakage ordering

Towards a formal analysis of information leakage for signature attacks in preferential elections

An event structure model for probabilistic concurrent Kleene algebra

Prinsys - On a quest for probabilistic loop invariants

Statistical model checking of wireless mesh routing protocols

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A Kantorovich-monadic powerdomain for information hiding, with probability and nondeterminism

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A rigorous analysis of AODV and its variants

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Operational versus weakest precondition semantics for the probabilistic guarded command language

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Automated analysis of AODV using UPPAAL

Operational versus weakest precondition semantics for the probabilistic guarded command language

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YAGA: automated analysis of quantitative safety specifications in probabilistic B

Graphical modelling for simulation and formal analysis of wireless network protocols

Security, probability and nearly fair coins in the cryptographers' café

Sums and lovers: Case studies in security, compositionality and refinement

The secret art of computer programming

Using probabilistic Kleene algebra pKA for protocol verification

CaVi - Simulation and model checking for wireless sensor networks

Proofs and refutations for probabilistic refinement

Results on the quantitative m-calculus qMu
McIver, A. & Morgan, C. 1 Jan 2007 In : ACM Transactions on Computational Logic. 8, 1, p. 1-43 43 p., 3

Automating refinement checking in probabilistic system design
Formal techniques for the analysis of wireless networks

A Novel Stochastic Game Via the Quantitative μ-calculus

Developing and reasoning about probabilistic programs in pGCL

Programming-logic analysis of fault tolerance: expected performance of self-stabilisation

Quantitative refinement and model checking for the analysis of probabilistic systems

Quantitative μ-calculus analysis of power management in wireless networks

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Probabilistic guarded commands mechanized in HOL

Memoryless strategies for stochastic games via domain theory

An elementary proof that Herman's Ring is $\Theta(N^2)$

Probabilistic Guarded Commands Mechanized in HOL

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Abstraction, refinement and proof for probabilistic systems

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Development via refinement in probabilistic B - Foundation and case study

Towards automated proof support for probabilistic distributed systems

Cost-based analysis of probabilistic programs mechanised in HOL

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Almost-certain eventualities and abstract probabilities in the quantitative temporal logic qTL

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Quantitative program logic and expected time bounds in probabilistic distributed algorithms

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Cost analysis of games, using program logic

A generalisation of stationary distributions, and probabilistic program Algebra

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Almost-certain eventualities and abstract probabilities in quantitative temporal logic

Demonic, angelic and unbounded probabilistic choices in sequential programs

A Generalisation of Stationary Distributions and Probabilistic Program Algebra

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