Research output

An axiomatization of information flow measures

Abstract Hidden Markov Models: a monadic account of quantitative information flow

Generalised differential privacy for text document processing

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

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Reasoning about distributed secrets  

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Axioms for information leakage  

Program refinement, perfect secrecy and information flow  

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Conditioning in Probabilistic Programming  

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

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

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Prinsys - On a quest for probabilistic loop invariants

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

A process algebra for wireless mesh networks

A rigorous analysis of AODV and its variants

Automated analysis of AODV using UPPAAL

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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

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Results on the quantitative μ-calculus qμ

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

Using probabilistic kleene algebra for protocol verification

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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Cost-based analysis of probabilistic programs mechanised in HOL

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