Publications:

**Content dependent information flow control**
Nielson, H. R. & Nielson, F. 1 Feb 2017 In : Journal of Logical and Algebraic Methods in Programming. 87, p. 6-32
Publication: Research - peer-review › Journal article – Annual report year: 2017

**A coordination language for databases**
Publication: Research - peer-review › Journal article – Annual report year: 2016

**Asynchronous Distributed Execution of Fixpoint-Based Computational Fields**
Publication: Research - peer-review › Journal article – Annual report year: 2017

**Atomistic Galois insertions for flow sensitive integrity**
Nielson, F. & Nielson, H. R. 2017 In : Computer Languages, Systems and Structures. 50, p. 82-107
Publication: Research - peer-review › Journal article – Annual report year: 2017

**Automated specification and verification of Web-based applications**
ter Beek, M. H. & Lluch Lafuente, A. 2017 In : Journal of Logical and Algebraic Methods in Programming. 87, p. 51-51
Publication: Research › Editorial – Annual report year: 2017

**BProVe: A formal verification framework for business process models**
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

**BProVe: Tool support for business process verification**
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

**Choreographing Cyber-Physical Distributed Control Systems for the Energy Sector**
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

**Effect-driven QuickChecking of compilers**
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

**Formal Analysis of Graphical Security Models**
Publication: Research › Ph.D. thesis – Annual report year: 2017

**Formalizing and proving a typing result for security protocols in Isabelle/HOL**
Analysis of Security Protocols in Embedded Systems
Publication: Research › Ph.D. thesis – Annual report year: 2016

A Parametric Abstract Domain for Lattice-Valued Regular Expressions
Publication: Research - peer-review › Article in proceedings – Annual report year: 2016

A Process Framework for Designing Software Reference Architectures for Providing Tools as a Service
Publication: Research - peer-review › Article in proceedings – Annual report year: 2016

Attack tree analysis for insider threats on the IoT using isabelle
Publication: Research - peer-review › Article in proceedings – Annual report year: 2016

Enforcing Availability in Failure-Aware Communicating Systems
Publication: Research - peer-review › Article in proceedings – Annual report year: 2016

Fine-grained Information Flow for Concurrent Computation
Publication: Research › Ph.D. thesis – Annual report year: 2016

Formal modelling and analysis of socio-technical systems
Publication: Research - peer-review › Article in proceedings – Annual report year: 2016

Future-dependent Flow Policies with Prophetic Variables
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

Guaranteeing Privacy-Observing Data Exchange
Publication: Research - peer-review › Article in proceedings – Annual report year: 2016

Iterated Process Analysis over Lattice-Valued Regular Expressions
Publication: Research - peer-review › Article in proceedings – Annual report year: 2016

Model Based Analysis of Insider Threats
Modelling and Verifying Communication Failure of Hybrid Systems in HCSP

Preface: Special section on Graph Inspection and Traversal Engineering (GRAPHITE 2014)

Quantitative Verification and Synthesis of Attack-Defence Scenarios

Security protocol specification and verification with AnBx

Security Protocols: Specification, Verification, Implementation, and Composition

Statistical Model Checking for Product Lines

Towards Unifying OpenMP Under the Task-Parallel Paradigm Implementation and Performance of the taskloop Construct
Understanding How Components of Organisations Contribute to Attacks

A calculus for attribute-based communication

A calculus of quality for robustness against unreliable communication
Nielsen, H. R., Nielsen, F. & Vigo, R. 2015 In : The Journal of Logic and Algebraic Programming. 84, 5, p. 611-639

A Fixpoint-Based Calculus for Graph-Shaped Computational Fields

Alice and Bob: Reconciling Formal Models and Implementation

A Probabilistic Analysis Framework for Malicious Insider Threats

A SAT-Based Analysis of a Calculus for Wireless Sensor Networks

A Scalable Prescriptive Parallel Debugging Model

Attack Tree Generation by Policy Invalidation

Availability by Design: A Complementary Approach to Denial-of-Service

Publication: Research › Article in proceedings – Annual report year: 2016
Publication: Research › Article in proceedings – Annual report year: 2016
Publication: Research › Article in proceedings – Annual report year: 2016
Publication: Research › Article in proceedings – Annual report year: 2016
Publication: Research › Article in proceedings – Annual report year: 2015
Publication: Research › Article in proceedings – Annual report year: 2015
Publication: Research › Article in proceedings – Annual report year: 2015
Publication: Research › Article in proceedings – Annual report year: 2015
Publication: Research › Article in proceedings – Annual report year: 2015
Publication: Research › Article in proceedings – Annual report year: 2015
Publication: Research › Article in proceedings – Annual report year: 2015
Publication: Research › Article in proceedings – Annual report year: 2015
Publication: Research › Article in proceedings – Annual report year: 2015
Publication: Research › Article in proceedings – Annual report year: 2015
Publication: Research › Ph.D. thesis – Annual report year: 2015
AVOCLoudy: A simulator of volunteer clouds
Sebastio, S., Amoretti, M. & Lluch Lafuente, A. 2015 In : Software: Practice & Experience. 46, 1, p. 3-30
Publication: Research - peer-review › Journal article – Annual report year: 2015

Awareness and Control in Adaptable Transition Systems
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

A white box perspective on behavioural adaptation
Publication: Research - peer-review › Book chapter – Annual report year: 2015

Declarative interpretations of session-based concurrency
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

Developing merged CDIO based curricula for diploma (B.Eng.) IT study programs at DTU
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

Discretionary Information Flow Control for Interaction-Oriented Specifications
Publication: Research - peer-review › Book chapter – Annual report year: 2015

Experiences with Compiler Support for Processors with Exposed Pipelines
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

Factorization of Behavioral Integrity
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

Hardware Transactional Memory Optimization Guidelines, Applied to Ordered Maps
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

Hoare Logic for Disjunctive Information Flow
Publication: Research - peer-review › Book chapter – Annual report year: 2015

How to Trust the Re-use of Data
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015
Improving Energy Saving Techniques by Ambient Intelligence Scheduling
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

Klaim-DB: A Modeling Language for Distributed Database Applications
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

Meta-Logical Reasoning In Higher-Order Logic
Villadsen, J., Schlichtkrull, A. & Hess, A. V. 2015
Publication: Research - peer-review › Poster – Annual report year: 2015

Modelling and Analysing Access Control Policies in XACML 3.0
Publication: Research › Ph.D. thesis – Annual report year: 2015

Modelling and Analysing Socio-Technical Systems
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

Modelling Social-Techical Attacks with Timed Automata
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

Pareto Efficient Solutions of Attack-Defence Trees
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

Preface
Lluch Lafuente, A. & Tuosto, E. 2015 In : Service Oriented Computing and Applications. 9, 3-4, p. 211 1 p.
Publication: Research - peer-review › Editorial – Annual report year: 2015

Proceedings 11th International Workshop on Automated Specification and Verification of Web Systems
Publication: Research - peer-review › Book – Annual report year: 2015

Proceedings 8th Interaction and Concurrency Experience
Publication: Research - peer-review › Book – Annual report year: 2015

Protocol-Based Verification of Message-Passing Parallel Programs
Quantitative Analysis of Probabilistic Models of Software Product Lines with Statistical Model Checking
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

Reconciling White-Box and Black-Box Perspectives on Behavioral Self-adaptation
Publication: Research - peer-review › Conference article – Annual report year: 2015

Replica-Based High-Performance Tuple Space Computing
Publication: Research - peer-review › Book chapter – Annual report year: 2015

Reproducing Data for Better Performances in X10
Publication: Research - peer-review › Book chapter – Annual report year: 2015

Statistical analysis of probabilistic models of software product lines with quantitative constraints
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

Stochastic Model Checking of the Stochastic Quality Calculus
Publication: Research - peer-review › Book chapter – Annual report year: 2015

Systematic derivation of correct variability-aware program analyses
Publication: Research - peer-review › Journal article – Annual report year: 2015

The SCEL Language: Design, Implementation, Verification
Publication: Research - peer-review › Book chapter – Annual report year: 2015

Tool-based Risk Assessment of Cloud Infrastructures as Socio-Technical Systems
Publication: Research - peer-review › Book chapter – Annual report year: 2015
Typing and compositionality for security protocols: A generalization to the geometric fragment
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

Typing and Compositionality for Security Protocols: A Generalization to the Geometric Fragment (Extended Version)
Publication: Research › Report – Annual report year: 2015

A Sound Abstraction of the Parsing Problem
Publication: Research - peer-review › Article in proceedings – Annual report year: 2014

A Sound Abstraction of the Parsing Problem (Extended Version)
Publication: Research › Report – Annual report year: 2014

Automated Generation of Attack Trees
Publication: Research - peer-review › Article in proceedings – Annual report year: 2014

Automatic generation of application specific FPGA multicore accelerators
Publication: Research - peer-review › Article in proceedings – Annual report year: 2014

Availability by Design
Publication: Research - peer-review › Article in proceedings – Annual report year: 2014

Can We Efficiently Check Concurrent Programs Under Relaxed Memory Models in Maude?
Publication: Research - peer-review › Article in proceedings – Annual report year: 2014

Code Commentary and Automatic Refactorings using Feedback from Multiple Compilers
Publication: Research - peer-review › Article in proceedings – Annual report year: 2014

Collaborative Compiler Vectorization
Jensen, N. B., Probst, C. W. & Karlsson, S. 2014
Publication: Research › Poster – Annual report year: 2014

Combining Generated Data Models with Formal Invalidation for Insider Threat Analysis
Publication: Research - peer-review › Article in proceedings – Annual report year: 2014
Compiler Feedback using Continuous Dynamic Compilation during Development
Publication: Research - peer-review › Article in proceedings – Annual report year: 2014

Publication: Research - peer-review › Report chapter – Annual report year: 2014

Denial-of-Service Security Attack in the Continuous-Time World
Publication: Research - peer-review › Article in proceedings – Annual report year: 2014

DySectAPI: Scalable Prescriptive Debugging
Publication: Research - peer-review › Poster – Annual report year: 2014

DySectAPI: Scalable Prescriptive Debugging
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2014

ELB-trees - Efficient Lock-free B+trees
Publication: Research › Poster – Annual report year: 2014

ELB-trees - Efficient Lock-free B+trees
Publication: Research - peer-review › Conference abstract in proceedings – Annual report year: 2014

Exploring adaptive program behavior
Publication: Research - peer-review › Poster – Annual report year: 2014

Exploring Adaptive Program Behavior
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2014

Formal Security Analysis of the MaCAN Protocol.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2014

Foundational aspects of security
Publication: Research › Editorial – Annual report year: 2014

Hardware Realization of an FPGA Processor – Operating System Call Offload and Experiences
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015
ICT-powered Health Care Processes
Publication: Research - peer-review › Article in proceedings – Annual report year: 2014

Invalidating Policies using Structural Information
Publication: Research - peer-review › Journal article – Annual report year: 2014

Model-based Abstraction of Data Provenance
Publication: Research - peer-review › Article in proceedings – Annual report year: 2014

Modeling Human Behaviour with Higher Order Logic: Insider Threats
Publication: Research - peer-review › Article in proceedings – Annual report year: 2014

Pareto Efficient Solutions of Attack Trees
Publication: Research - peer-review › Article in proceedings – Annual report year: 2014

Proceedings 3rd Workshop on GRAPH Inspection and Traversal Engineering (GRAPHITE 2014)
Publication: Research - peer-review › Book – Annual report year: 2014

Proceedings of the 7th Interaction and Concurrency Experience (ICE 2014)
Publication: Research - peer-review › Book – Annual report year: 2014

Quantitative modelling and analysis of a Chinese smart grid: a stochastic model checking case study
Publication: Research - peer-review › Journal article – Annual report year: 2014

Smartphones as pocketable labs: Visions for mobile brain imaging and neurofeedback
Publication: Research - peer-review › Journal article – Annual report year: 2013

Sufficient Conditions for Vertical Composition of Security Protocols (Extended Version)
Publication: Research › Report – Annual report year: 2014

Publication: Research - peer-review › Article in proceedings – Annual report year: 2014
The logic of XACML
Publication: Research - peer-review › Journal article – Annual report year: 2014

The stochastic quality calculus
Publication: Research - peer-review › Article in proceedings – Annual report year: 2014

Uniform Protection for Multi-exposed Targets
Publication: Research - peer-review › Article in proceedings – Annual report year: 2014

Verification of Stateful Protocols - Set-Based Abstractions in the Applied Pi-Calculus
Publication: Research - peer-review › Article in proceedings – Annual report year: 2014

A calculus for quality
Publication: Research - peer-review › Article in proceedings – Annual report year: 2013

An algebraic approach to analysis of recursive and concurrent programs
Publication: Research › Ph.D. thesis – Annual report year: 2013

A tighter bound for the self-stabilization time in Herman’s algorithm
Feng, Y. & Zhang, L. 2013 Information Processing Letters. 113, 13, p. 486-488
Publication: Research - peer-review › Journal article – Annual report year: 2013

Bisimulations meet PCTL equivalences for probabilistic automata
Publication: Research - peer-review › Journal article – Annual report year: 2013

Broadcast, Denial-of-Service, and Secure Communication
Publication: Research - peer-review › Article in proceedings – Annual report year: 2013

Deciding bisimilarities on distributions
Publication: Research - peer-review › Article in proceedings – Annual report year: 2013

Defining Privacy Is Supposed to Be Easy
Publication: Research - peer-review › Article in proceedings – Annual report year: 2013
Design-Efficiency in Security
Publication: Research › Report – Annual report year: 2013

Detecting and Preventing Beacon Replay Attacks in Receiver-Initiated MAC Protocols for Energy Efficient WSNs
Publication: Research - peer-review › Article in proceedings – Annual report year: 2013

ELB-trees an efficient and lock-free B-tree derivative
Publication: Research - peer-review › Article in proceedings – Annual report year: 2013

ELB-trees - Efficient Lock-free B+trees
Publication: Research › Poster – Annual report year: 2014

Externalizing Behaviour for Analysing System Models
Publication: Research - peer-review › Journal article – Annual report year: 2014

Foreword: Science of Computer Programming, special section from the Principles and Practice of Programming in Java conference
Publication: Research › Editorial – Annual report year: 2013

Invalidating Policies using Structural Information
Publication: Research - peer-review › Article in proceedings – Annual report year: 2013

Lazy Mobile Intruders
Publication: Research - peer-review › Article in proceedings – Annual report year: 2013

Model checking conditional CSL for continuous-time Markov chains
Publication: Research - peer-review › Journal article – Annual report year: 2013

On Building Secure Communication Systems
Publication: Research › Ph.D. thesis – Annual report year: 2014

On the relationship between LTL normal forms and Büchi automata
Publication: Research - peer-review › Book chapter – Annual report year: 2013
Predictive access control for distributed computation
Publication: Research - peer-review › Journal article – Annual report year: 2013

Probabilistic Analysis of the Quality Calculus
Publication: Research - peer-review › Article in proceedings – Annual report year: 2013

Reachability-based impact as a measure for insiderness
Publication: Research - peer-review › Journal article – Annual report year: 2014

Reachability for Finite-state Process Algebras Using Horn Clauses
Publication: Research - peer-review › Journal article – Annual report year: 2013

Revisiting Weak Simulation for Substochastic Markov Chains
Publication: Research - peer-review › Article in proceedings – Annual report year: 2013

Safety versus Security in the Quality Calculus
Publication: Research - peer-review › Book chapter – Annual report year: 2013

Publication: Research › Book – Annual report year: 2013

Security Games for Cyber-Physical Systems
Publication: Research - peer-review › Article in proceedings – Annual report year: 2013

Spatio temporal media components for neurofeedback
Publication: Research - peer-review › Article in proceedings – Annual report year: 2013

The Quest for Minimal Quotients for Probabilistic Automata
Publication: Research - peer-review › Article in proceedings – Annual report year: 2013

XACML 3.0 in Answer Set Programming
Publication: Research - peer-review › Article in proceedings – Annual report year: 2013
Logics and Models for Stochastic Analysis Beyond Markov Chains
Publication: Research › Ph.D. thesis – Annual report year: 2013

Safety Verification for Probabilistic Hybrid Systems
Zhang, L., She, Z., Ratschan, S., Hermanns, H. & Hahn, E. M. 2012 In : European Journal of Control. 18, 6, p. 572-587
Publication: Research - peer-review › Journal article – Annual report year: 2013

Smart Grid Security A Smart Meter-Centric Perspective
Publication: Research - peer-review › Article in proceedings – Annual report year: 2013

Activities:

CryptoForma Workshop
Almousa, O. (Speaker)
13 Jul 2015
Activity: Talks and presentations › Conference presentations

Adaptivity Framework: libpappadapt
Bonnichsen, L. F. (Speaker)
22 Jan 2014
Activity: Talks and presentations › Conference presentations

Prizes:

Otto Mønsteds Fund: Travel grant
Hugo-Andrés López-Acosta (Recipient), 25 Oct 2015
Prize: Prizes, scholarships, distinctions