Publications:

**Discounted Duration Calculus**
Publication: Research - peer-review › Article in proceedings – Annual report year: 2016

**Game-based verification and synthesis**
Publication: Research › Ph.D. thesis – Annual report year: 2016

Publication: Research › Book – Annual report year: 2016

**Synthesis of railway-signaling plans using reachability games**
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

**An approach to multicore parallelism using functional programming: A case study based on Presburger Arithmetic**
Publication: Research - peer-review › Journal article – Annual report year: 2015

**Modelling and Analysis for Cyber-Physical Systems: An SMT-based approach**
Publication: Research › Ph.D. thesis – Annual report year: 2015

**No Need Knowing Numerous Neighbours: Towards a Realizable Interpretation of MLSL**
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

**A practical approach to model checking Duration Calculus using Presburger Arithmetic**
Publication: Research - peer-review › Journal article – Annual report year: 2013

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

**Specification, Verification and Optimisation of Business Processes: A Unified Framework**
Formal methods for design and simulation of embedded systems

Functional Programming Using F#

Guest Editor's foreword
Hansen, M. R. 2012 In : Journal of Logic and Algebraic Programming. 81, 4, p. 355

From functional programming to multicore parallelism: A case study based on Presburger Arithmetic

Modelling of Energy Harvesting Aware Wireless Sensor Networks

On Tool Support for Duration Calculus on the Basis of Presburger Arithmetic

Modelling and Analyses of Embedded Systems Design

Modelling and Analysis for Embedded Systems

Efficient Model Checking for a Hybrid Duration Calculus.
A modelling and analysis framework for embedded systems
Publication: Research - peer-review › Book chapter – Annual report year: 2009

Analysis of Quantitative Properties of Hardware Specifications
Publication: Research - peer-review › Article in proceedings – Annual report year: 2009

A prototype model checker for Duration Calculus
Publication: Research - peer-review › Article in proceedings – Annual report year: 2009

Declarative Business Process Modelling and the Generation of ERP Systems
Publication: Research - peer-review › Book chapter – Annual report year: 2009

Efficient model checking for duration calculus
Publication: Research - peer-review › Journal article – Annual report year: 2009

Formal Verification of an energy aware routing algorithm
Publication: Research - peer-review › Article in proceedings – Annual report year: 2009

Efficient model checking for duration calculus on the fly
Publication: Research - peer-review › Article in proceedings – Annual report year: 2009

MoVES - A Framework for Modelling and Verifying Embedded Systems
Publication: Research - peer-review › Article in proceedings – Annual report year: 2009

Proceedings of the 21st Nordic Workshop on Programming Theory, NWPT'09, Lyngby, Denmark, 14-16 October 2009
Publication: Research › Report – Annual report year: 2009

Analysis of costs of embedded systems: experiments with priced timed automata
Publication: Research - peer-review › Article in proceedings – Annual report year: 2008

Efficient model checking for duration calculus based on branching-time approximations
Experiences with Functional Programming in an Introductory Curriculum
Publication: Research - peer-review » Book chapter – Annual report year: 2008

Faults Analysis in Distributed Systems: Quantitative Estimation of Reliability and Resource Requirements
Publication: Research - peer-review » Book chapter – Annual report year: 2008

Formal Verification of Design Properties of Hardware Architectures.
Publication: Research - peer-review » Article in proceedings – Annual report year: 2008

Models and formal verification of multiprocessor system-on-chips
Publication: Research - peer-review » Journal article – Annual report year: 2008

System-level verification of multi-core embedded systems using timed automata
Publication: Research - peer-review » Article in proceedings – Annual report year: 2008

Towards Traceability in Descriptive Software Models
Publication: Research - peer-review » Article in proceedings – Annual report year: 2008

A theory of Duration Calculus with applications
Publication: Research - peer-review » Book chapter – Annual report year: 2007

Decidability of a Hybrid Duration Calculus
Publication: Research - peer-review » Conference article – Annual report year: 2007

Deciding an Interval Logic with Accumulated Durations
Publication: Research - peer-review » Book chapter – Annual report year: 2007

Hardware modelling language and verification of design properties
Publication: Research - peer-review » Article in proceedings – Annual report year: 2007

MOVES - A tool for Modeling and Verification of Embedded Systems
Publication: Research » Article in proceedings – Annual report year: 2007
Semantics and verification of a language for modelling hardware architectures
Publication: Research - peer-review › Book chapter – Annual report year: 2007

Timed Traces and Strand Spaces
Publication: Research - peer-review › Book chapter – Annual report year: 2007

A Timed-Automata Semantics for a System-Level MPSoC model
Publication: Research - peer-review › Article in proceedings – Annual report year: 2006

A robust interpretation of duration calculus
Publication: Research - peer-review › Book chapter – Annual report year: 2005

Bounded Model Construction for Duration Calculus
Publication: Research - peer-review › Article in proceedings – Annual report year: 2005

Proof support for RAISE - by a Reuse Approach Based on Institutions
Publication: Research › Ph.D. thesis – Annual report year: 2004

A Robust Interpretation of Duration Calculus
Publication: Research - peer-review › Article in proceedings – Annual report year: 2004

Duration Calculus: A Formal Approach to Real-Time Systems
Publication: Research - peer-review › Book – Annual report year: 2004

Generating Web-based Systems from Specifications
Publication: Research - peer-review › Article in proceedings – Annual report year: 2004

Special Issue on Duration Calculus
Publication: Research › Journal article – Annual report year: 2004

Timed Traces and Strand Spaces
Publication: Research - peer-review › Article in proceedings – Annual report year: 2004

Untitled
Publication: Research - peer-review › Editorial – Annual report year: 2004
An Approach to Analyzing Availability Properties of Security Protocols
Publication: Research - peer-review › Journal article – Annual report year: 2003

Using Interval Logics for Temporal Analysis of Security Protocols
Publication: Research - peer-review › Article in proceedings – Annual report year: 2003

Interval logic. Proof theory and theorem proving
Publication: Research › Ph.D. thesis – Annual report year: 2002

Selected Papers of the 13th Nordic Workshop on Programming Theory (NWPT'01)
Publication: Research - peer-review › Journal article – Annual report year: 2002

Proof Support for RAISE
Publication: Research › Poster – Annual report year: 2001

Systematic design and implementation of web-based systems
Publication: Research - peer-review › Article in proceedings – Annual report year: 2001

Teaching object-oriented programming on top of functional programming
Publication: Research - peer-review › Article in proceedings – Annual report year: 2001

The 13th Nordic Workshop on Programming Theory
Publication: Research › Report – Annual report year: 2001

A Theory Based Introductory Programming Course
Publication: Research - peer-review › Article in proceedings – Annual report year: 1999

Introduction to Programming using SML
Publication: Research - peer-review › Book – Annual report year: 1999

10th European Summer School in Logic Language and Information: Duration Calculus: A Logical Approach to Real-Time Systems
Publication: Research - peer-review › Book – Annual report year: 1998

An Adequate First Order Logic of Intervals
Publication: Research - peer-review › Article in proceedings – Annual report year: 1998

Duration Calculus: A Logical Approach to Real-Time Systems
Publication: Research - peer-review › Book – Annual report year: 1998
An Abstract Model of a Distributed Office System
Publication: Research - peer-review › Article in proceedings – Annual report year: 1984

Eine SEQUELARTIGE Sprachschnittstelle Für das NF2-Modell
Publication: Research - peer-review › Article in proceedings – Annual report year: 1983

Projects:

A top-down approach to genetic circuit synthesis
Baig, H., Madsen, J., Hansen, M. R., Bhatia, S. & Myers, C. J.
15/08/2014 → 15/11/2017
Project: PhD

Logical and Computational Aspects of Infinite Games
01/05/2013 → 23/11/2016
Project: PhD

Formal development and verification of railway control systems
01/11/2012 → 21/01/2016
Project: PhD

Autonomous Planning and Scheduling of Mission Operations
Bøg, S., Hansen, M. R., Bolander, T. & Løvengreen, H. H.
01/02/2012 → 14/07/2014
Project: PhD

Modelling and analysis for Cyber-Physical Systems
01/11/2011 → 30/09/2015
Project: PhD

Multi-agent Story Planning
01/02/2011 → 23/01/2015
Project: PhD

Specifying and verifying medical robotics software to ensure harmless operation
01/03/2010 → 24/06/2014
Project: PhD

Formal methods for design and simulation of embedded systems
01/06/2009 → 30/08/2013
Project: PhD

Models and Analyses for Embedded Systems Design
Brekling, A. W., Hansen, M. R., Madsen, J., Sparsø, J., Ravn, A. P. & Vain, J.
01/04/2007 → 02/02/2011
Project: PhD
Chip Area Interconnection Networks
01/09/2002 → 18/04/2006
Project: PhD

Sprog og logikker for ontologier
01/08/2000 → 16/02/2004
Project: PhD

Proof support for raise
01/04/2000 → 25/05/2004
Project: PhD

Formelle notationer til specifikation og verification af indlejrede, tidstro systemer
01/02/1999 → 23/08/2002
Project: PhD

High-level program design of telecommunication software
Hoffmann, T. & Hansen, M. R.
01/12/1997 → 01/02/2001
Project: PhD