Conference Programme

Produced: January 17, 2017

Time/Day	Monday, January 16		
	Registration hours 13:00 – 14:30		
14:00-14:30	**Conference Opening**		
14:30-16:00	**Keynote 1** Dependable and Optimal Cyber-Physical Systems *Kim Larsen*		
16:00-16:30	Coffee Break		
16:30-18:00	**FOCS 1** Semantics, Specification and Compositionality	**FOCS 2** Theory of Mobile and Distributed Systems	**Tutorial 1** Cinco: A Simplicity-Focused Language Workbench for Domain-Specific Graphical Modeling Environments
18:30-20:00	**Welcome Reception**		

14:00 - 14:30

Conference Opening (Room: KBS12)

14:30 - 16:00

Keynote 1 (Room: KBS12)

Dependable and Optimal Cyber-Physical Systems
Kim Larsen

16:00 - 16:30

Coffee Break

16:30 - 18:00

FOCS 1 (Room: KBS13)

Semantics, Specification and Compositionality

Logical Characterization and Compositionality of Input/Output Conformance Simulation
Luca Aceto, Ignacio Fábregas, Carlos Gregorio-Rodríguez, Anna Ingólfsdóttir

A Linear-Time/Branching-Time Spectrum of Behaviorial Specification Theories
Uli Fahrenberg, Axel Legay

Symbolic Semantics for Multiparty Interactions in the Link-Calculus
Linda Brodo, Carlos Olarte

FOCS 2 (Room: KBS14)

Theory of Mobile and Distributed Systems

Different Speeds Suffice for Rendezvous of Two Agents on Arbitrary Graphs
Evangelos Kranakis, Danny Krizanc, Euripides Markou, Aris Pagourtzis, Felipe Ramirez

Deciding Structural Liveness of Petri Nets
Petr Jancar

Distributed Network Generation based on Preferential Attachment in ABS
Keyvan Azadbakht, Nikolaos Bezirgiannis, Frank de Boer

Tutorial 1 (Room: KBS15)

Cinco: A Simplicity-Focused Language Workbench for Domain-Specific Graphical Modeling Environments

Stefan Naujokat, Johannes Neubauer, Bernhard Steffen

18:30 - 20:00

Welcome Reception

Time/Day	Tuesday, January 17		
09:00-10:30	**Keynote 2** On Featured Transition Systems *Axel Legay*		
10:30-11:00	Coffee Break		
11:00-12:30	**FOCS 3** Verification and Automated System Analysis	**SE** Software Engineering: Methods, Tools, Applications	**ASE 1** Automotive Software Engineering
12:30-13:30	Lunch		
14:30-16:00	**Keynote 3** Domain-Specific Languages: A Systematic Mapping Study *Marjan Mernik*		
16:00-16:30	Coffee Break		
16:30-18:00	**FOCS 4** Petri Nets, Games and Relaxed Data Structures	**Tutorial 2** **Early Career Researcher Tutorial** Becoming Goldilocks: Privacy and Data Sharing in "Just Right" Conditions for Software Engineering	**ASE 2** Automotive Software Engineering

09:00 - 10:30

Keynote 2 (Room: KBS12)

On Featured Transition Systems
Axel Legay

10:30 - 11:00

Coffee Break

11:00 - 12:30

FOCS 3 (Room: KBS13)

Verification and Automated System Analysis

Completeness of Hoare Logic Relative to the Standard Model
Zhaowei Xu, Wenhui Zhang, Yuefei Sui

Configuration- and Residual-Based Transition Systems for Event Structures with Asymmetric Conflicts
Eike Best, Nataliya Gribovskaya, Irina Virbitskaite

Hardness of Deriving Invertible Sequences from Finite-State Machines
Uraz Turker, Robert M. Hierons, Mohammad Reza Mousavi, Micheal Thomasen

Parametrized and Exact Algorithms for Class Domination Coloring
R. Krithika, Ashutosh Rai, Saket Saurabh, Prafullkumar Tale

SE (Room: KBS14)

Software Engineering: Methods, Tools, Applications

Characterising Malicious Software with High-Level Behavioural Patterns
Jana Šťastná*, Martin Tomasek

AErlang at work
Rocco De Nicola, Tan Duong, Omar Inverso, Catia Trubiani

Software Systems Migration towards Cloud-native Architectures for SME-sized Software Vendors.
Frank Fowley, Divyaa Manimaran Elango, Hany Magar, Claus Pahl

Using n-grams for the Automated Clustering of Structural Models
Onder Babur, Loek Cleophas

ASE 1 (Room: KBS15)
Automotive Software Engineering

Invited talk: "Future Trends in Electric Vehicles, Enabled by Internet Connectivity, Solar and Battery Technology"
Ben Rutten

Towards Certifiable Software using Verified Model Transformations
Sander de Putter

12:30 - 13:30

Lunch

14:30 - 16:00

Keynote 3 (Room: KBS12)

Domain-Specific Languages: A Systematic Mapping Study
Marjan Mernik

16:00 – 16:30

Coffee Break

16:30 – 18:00

FOCS 4 (Room: KBS13)
Petri Nets, Games and Relaxed Data Structures

A Graph-Theoretical Characterization of State Separation
Eike Best, Raymond Devillers, Uli Schlachter

Selfish Transportation Games
Dimitris Fotakis, Laurent Gourvès, Jérôme Monnot

Decomposable Relaxation for Concurrent Data Structures
Chao Wang, Yi Lv, Peng WU

Tutorial 2 (Room: KBS14)
Early Career Researcher Tutorial

Becoming Goldilocks: Privacy and Data Sharing in "Just Right" Conditions for Software Engineering
Fayola Peters

ASE 2 (Room: KBS15)
Automotive Software Engineering

Using Model-based Techniques to Support for Compliance with Automotive Standards: ISO 26262, ASPICE, J3061
Yaping Luo

The Soft Car: Automotive Research at CS@TU/e
Jeroen Redegeld

Safety analysis for a cooperative driving system
Yanja Dajsuren

Time/Day	Wednesday, January 18		
09:00-10:30	**Keynote 4** Trends and Challenges in Predictive Analytics *Jaakko Hollmen*		
10:30-11:00	Coffee Break		
11:00-12:30	**FOCS 5** Graph Theory and Scheduling Algorithms	**DIKE** Data, Information and Knowledge Engineering	**Tutorial 3** Unifying Theories of Programming: Principles, Theories and Tools
12:30-13:30	Lunch		
14:30	**Excursion and conference dinner**		

09:00 - 10:30

Keynote 4 (Room: KBS12)

Trends and Challenges in Predictive Analytics
Jaakko Hollmen

10:30 - 11:00

Coffee Break

11:00 - 12:30

FOCS 5 (Room: KBS13)
Graph Theory and Scheduling Algorithms

Sufficient Conditions for a Graph to have a Hamiltonian Cycle
Benjamin Momège

Enumerating Minimal Tropical Connected Sets
Dieter Kratsch, Mathieu Liedloff, Mohamed Yosri Sayadi

Bamboo Garden Trimming Problem (Perpetual Maintenance of Machines with Different Attendance Urgency Factors)
Leszek Gasieniec, Ralf Klasing, Christos Levcopoulos, Andrzej Lingas, Jie Min, Tomasz Radzik

DIKE (Room: KBS14)
Data, Information and Knowledge Engineering

Webpage Menu Detection Based on DOM
Julian Alarte, David Insa, Josep Silva

A Hybrid Model for Linking Multiple Social Identities across Heterogeneous Online Social Networks
Athanasios Kokkos, Theodoros Tzouramanis, Yannis Manolopoulos

Eco Data Warehouse Design Through Logical Variability
Selma Bouarar, Ladjel Bellatreche, Amine Roukh

Tutorial 3 (Room: KBS15)
Unifying Theories of Programming: Principles, Theories and Tools

Andrew Butterfield

12:30 - 13:30

Lunch

14:30

Excursion and conference dinner (meet at the lobby of 'Kemmy Building')

Time/Day	Thursday, January 19		
09:00-10:30	**Keynote 5** Model-driven Development in Practice: From Requirements to Code *Óscar Pastor López*		
10:30-11:00	Coffee Break		
11:00-12:30	**FOCS 6** Quantum and Matrix Algorithms	**Tutorial 4** Verification and Test-case Generation from Architectural Models of Automotive Systems	**Student Research Forum**
12:30-13:30	Lunch		
14:30-16:00	**Keynote 6** Network Constructors: A Model for Programmable Matter *Paul Spirakis*		
16:00-16:30	Coffee Break		
16:30-18:00	**FOCS 7** Planar and molecular graphs	**Tutorial 5** Plasma Lab Statistical Model Checker: Architecture, Usage and Extension	**Student Research Forum**

09:00 - 10:30

Keynote 5 (Room: KBS12)

Model-driven Development in Practice: From Requirements to Code
Óscar Pastor López

10:30 - 11:00

Coffee Break

11:00 - 12:30

FOCS 6 (Room: KBS13)
Quantum and Matrix Algorithms

Exact Quantum Query Complexity of EXACTnk
Andris Ambainis, Janis Iraids, Daniel Ngaj

Adjacent Vertices can be Hard to Find by Quantum Walks
Nikolajs Nahimov, Raqueline Santos

Matrix Semigroup Freeness Problems in SL(2,Z)
Sang-Ki Ko, Igor Potapov

Tutorial 4 (Room: KBS14)

Verification and Test-case Generation from Architectural Models of Automotive Systems
Cristina Seceleanu

Student Research Forum (Room: KBS15)

Increasing Embedded Systems' Quality through Automated Specification and Analysis of Requirements and Behavioural Models
Predrag Filipovik

Identifying Architecturally Significant Requirements: An Empirical Study
Feng Chen

CINCO-based creation of XMDD community platform
Denis Kuehn

Investigating Social Networking Systems as a Way to Overcome Social Isolation of Older Adults Living in Rural Areas: A Research Proposal
Bilal Ahmed

12:30 - 13:30

Lunch

14:30 – 16:00

Keynote 6 (Room: KBS12)

Network Constructors: A Model for Programmable Matter
Paul Spirakis

16:00 – 16:30

Coffee Break

16:30 – 18:00

FOCS 7 (Room: KBS13)
Quantum and Matrix Algorithms

Order-Preserving 1-String Representations of Planar Graphs
Martin Derka, Therese Biedl

How to Draw a Planarization
Thomas Bläsius, Marcel Radermacher, Ignaz Rutter

Finding Largest Common Substructures in Molecules in Quadratic Time
Andre Droschinsky, Nils Kriege, Petra Mutzel

Tutorial 5 (Room: KBS14)

Plasma Lab Statistical Model Checker: Architecture, Usage and Extension
Axel Legay, Louis-Marie Traonouez

Student Research Forum (Room: KBS15)

Improving Mobile VoIP Quality Through Bandwidth Optimisation
Rafael Dantas

It's about time: applying temporality to improve productivity in Irish software development teams
Mairead O'Connor

Time/Day	Friday, January 20	
09:00-10:30	**Keynote 7** Verifying Parametric Thread Creation *Igor Walukievicz*	
10:30-11:00	Coffee Break	
11:00-12:30	**FOCS 8** Coloring and Vertex Covers	**FOCS 9** Algorithms for Strings and Formal Languages
12:30	**Closing Ceremony** Announcement of SOFSEM 2018	

09:00 - 10:30

Keynote 7 (Room: KBS12)

Verifying Parametric Thread Creation
Igor Walukievicz

10:30 - 11:00

Coffee Break

11:00 - 12:30

FOCS 8 (Room: KBS13)
Coloring and Vertex Covers

Lower Bounds for Online Interval Coloring with Vector and Cardinality Constraints
Grzegorz Gutowski, Patryk Mikos

The Approximability of Partial Vertex Covers in Trees
Vahan Mkrtchyan, Ojas Parekh, Danny Segev, K. Subramani

FOCS 9 (Room: KBS14)
Algorithms for Strings and Formal Languages

Longest Common Subsequence in at least k Length Order-Isomorphic Substrings
Yohei Ueki, Diptarama, Masatoshi Kurihara, Yoshiaki Matsuoka, Kazuyuki Narisawa, Ryo Yoshinaka, Hideo Bannai, Shunsuke Inenaga, Ayumi Shinohara

Computing Longest Single-Arm-Gapped Palindromes in a String
Shintaro Narisada, Diptarama, Kazuyuki Narisawa, Shunsuke Inenaga, Ayumi Shinohara

Edit-Distance between Visibly Pushdown Languages
Yo-Sub Han, Sang-Ki Ko

12:30

Closing Ceremony (Room: KBS12)
Announcement of SOFSEM 2018