

Programme of ETAPS 2026

Turin, Italy

April 11–16, 2026

08:45 **ETAPS 2026 Opening**
Room: Sala 500

09:00 **Christel Baier: Verification of Infinite-horizon Properties of Dynamic Bayesian Networks**
Room: Sala 500
Chair: Nathalie Bertrand

10:00 **Coffee Break**
Room: Expo Area

TACAS: Proofs and Quantifier Elimination
Room: Sala 500

FASE: SE and AI
Chair: Elvira Albert and Corina Pasareanu
Room: Sala Madrid

FOSSACS: Logic, Model Checking, Formal Specifications
Chair: Joost-Pieter Katoen
Room: Sala Londra

FM4All
Chair: Luigia Petre
Room: Sala Berlino

RUST
Chair:
Room: Sala Parigi

10:30 **Real-time Proof Checking for Distributed Incremental SAT Solving**
Dominik Schreiber, Mathias Fleury, Katalin Fazekas and Armin Biere.

Revisiting the Role of Natural Language Code Comments in Code Translation
Monika Gupta, Ajay Meena, Anamitra Roy Choudhury, Vijay Arya and Srikanta Bedathur.

The Modal Logic of Abstraction Refinement
Jakob Piribauer and Vinzent Zschuppe.

10:50 **Enumerating Choice Terms in Model-Based Quantifier Instantiation**
Lydia Kondylidou, Andrew Reynolds, Jasmin Blanchette and Cesare Tinelli.

From Words to Code: Do NLP Prompting Strategies Generalize to Code Generation?
Erin Woo, Sangyeop Yeo, Hyungkook Jun, Sangcheol Kim, Seungwon Hwang and Yu-Seung Ma.

Complete FSM Testing Using Strong Separability
Robert Hierons and Mohammad Reza Mousavi.

11:10 **Hint-Based SMT Proof Reconstruction**
Joshua Clune, Haniel Barbosa and Jeremy Avigad.

LusGen: Leveraging LLMs for Safety-Critical Lustre Design and Requirements Traceability
Yili Jiang, Zhuoran Yan, Ning Ge, Yuan Wang, Jiahao Weng and Chunming Hu.

Synthesising Asynchronous Automata from Fair Specifications
Béatrice Bérard, Benjamin Monmege, B Srivathsan and Arnab Sur.

11:30 **Incremental Forward Reasoning for White-Box Proof Search**
Xavier Génèreux and Jannis Limperg.

Quantifying Privacy Risks in Synthetic Data: A Study on Black-Box Membership Inference
Giacomo Fantino, Marco Rondina, Antonio Vetro' and Juan Carlos De Martin.

From Trees to Tree-Like: Distribution and Synthesis for Asynchronous Automata
Mathieu Lehaut, Anca Muscholl and Nir Piterman

11:50

**QSOLE: Automatic
QBF Equivalence
Checking**

Peter Pfeiffer, Mark Peyrer,
Daniel Grosse and Martina
Seidl.

**Formally correct
search for
interpretable DNFs**

Imane Bousdira, Martin
Cooper and Aurélie
Hurault.

**Inquisitive team
semantics of LTL**

Laura Bozzelli, Tadeusz
Litak, Munyque Mittelmann
and Aniello Murano.

12:00

**Fast Ramsey
Quantifier
Elimination in LIRA
(with applications
to liveness
checking)**

Kilian Lichtner, Pascal
Bergsträßer, Moses
Ganardi, Anthony W. Lin
and Georg Zetsche.

12:10

**Quantifier
Elimination Meets
Treewidth**

Hao Wu, Jiyu Zhu, Amir
Goharshady, Jie An, Bican
Xia and Naijun Zhan.

**DivKC: A Divide-
and-Conquer
Approach to
Knowledge
Compilation**

Olivier Zeyen, Karim Tit,
Maxime Cordy and Gilles
Perrouin.

**Complexity of
Model Checking
Second-Order
Hyperproperties
on Finite
Structures**

Bernd Finkbeiner, Hadar
Frenkel and Tim Rohde.

12:30

Lunch Break

Room: Expo Area

14:00

Leonardo de Moura: The Lean Programming Language and Theorem Prover (Invited Tutorial)

Room: Sala 500
Chair: Guy Katz

15:30

Tool Demos and Posters (with Coffee)

Room: Expo Area

16:00

Coffee Break with Tool Demos and Posters

Room: Expo Area

**TACAS: Software
Verification**

Room: Sala 500

**FASE: Advanced
SW Development**

Chair: Artur Boronat
Room: Sala Madrid

**FOSSACS:
Automata, Games,
Concurrency
Models**

Chair: B. Srivathsan
Room: Sala Londra

SV-COMP

Chair:
Room: Sala Berlino

RUST

Chair:
Room: Sala Parigi

16:30

**Efficient
Verification of
Lingua Franca
Programs**

Kyungmin Bae, Mircea
Marin, Peter Csaba
Ölveczky, Mario Reja and
Mikheil Rukhaia.

**QEMI: A Quantum
Software Stacks
Testing Framework
via Equivalence
Module Inputs**

Junjie Luo, Shangzhou Xia,
Fuyuan Zhang and Jianjun
Zhao.

**Well-quasi-
orderings on word
languages**

Aliaume Lopez, Nathan
Lhote and Lia Schuetze

16:50

Verifying Floating-Point Programs in Stainless

Andrea Gilot, Axel Bergström and Eva Darulova.

Towards Decentralised Dynamic Reconfiguration of Software Systems

Mina Yavari and Damian Arellanes.

The Complexity of Games with Randomised Control

Sarvin Bahmani, Rasmus Ibsen-Jensen, Soumyajit Paul, Sven Schewe, Friedrich Slivovsky, Qiyi Tang, Dominik Wojtczak and Shufang Zhu.

17:10

A Case Study in Firmware Verification: Applying Formal Methods to Intel TDX Module

Dirk Beyer, Po-Chun Chien, Bo-Yuan Huang, Nian-Ze Lee and Thomas Lemberger.

Analyses as First-Class Citizens in Model-Driven Development

Tianhai Liu, Shmuel Tyszberowicz and Bernhard Beckert.

The Value Problem for Weighted Timed Games with Two Clocks is Undecidable

Isa Vialard, Joël Ouaknine and Quentin Guilmant.

17:30

VeriStruct: AI-assisted Automated Verification of Data-Structure Modules in Verus

Chuyue Sun, Yican Sun, Daneshvar Amrollahi, Ethan Zhang, Shuvendu Lahiri, Shan Lu, David Dill and Clark Barrett.

Don't go MAD with Anomalies! Design-time Microservice Anomaly Detection in Migration to Microservices

Valentim Romão, Rafael Soares, Luis Rodrigues and Vasco Manquinho.

Active Learning Techniques for Pomset Recognizers

Adrien Pommellet, Amazigh Amrane, Edgar Delaporte, Geoffroy Du Prey and Oscar Peyron.

17:50

Deciding Serializability in Network Systems

Guy Amir, Mark Barbone, Nicolas Amat and Jules Jacobs.

EasyRPL - A web-based tool for modelling and analysis of cross-organisational workflows

Muhammad Rizwan Ali, Violet Ka I Pun and Guillermo Román-Díez.

On Reversibility in Petri Nets

Hernán Melgratti, Claudio Antares Mezzina and G. Michele Pinna.

18:10

Extending FRET with SLEEC Rules: Formalization, Obligation Inference, and Monitoring

Mahrokh Mirani, Paola Inverardi, Patrizio Pelliccione, Franco Raimondi and Nicolas Troquard.

ForumSeeker: Fusion Retrieval of Online Technical Forums for Effective Troubleshooting

Youyang Kim, Yaoping Ruan, Young-Kyoon Suh, Liqiang Wang and Byungchul Tak.

Bridging the Gap Between Plain VASS and Branching VASS

Clotilde Bizière, Jérôme Leroux and Grégoire Sutre.

19:00

ETAPS Reception

Room: Corridoio Nizza

09:00 **Einar Broch Johnsen: Formal Methods meet Digital Twins: Challenges and Opportunities**

Room: Sala 500
Chair: Robbert Krebbers

10:00 **Coffee Break**

Room: Expo Area

**TACAS:
Probabilistic Model
Checking &
Software Testing**
Room: Sala 500

**ESOP:
Concurrency**
Room: Sala Berlino

**FASE: Autonomous
Systems/
Applications**
Chair: Luigia Petre
Room: Sala Madrid

**FOSSACS: Kleene
Algebra,
Expressions, String
Diagrams,
Categorical Logic**
Chair: Igor Walukiewicz
Room: Sala Londra

RUST
Chair:
Room: Sala Parigi

10:30 **Multiple Long-Run
and omega-
Regular Objectives
in MDPs**

Julius Ide, Joost-Pieter
Katoen, Hannah Mertens
and Tim Quatmann.

**Denotational
reasoning for
asynchronous
multiparty session
types**

Dylan McDermott and
Nobuko Yoshida.

**Failure Modes and
Effects Analysis:
An Experience
from the E-Bike
Domain**

Andrea Bombarda,
Federico Conti, Marcello
Minervini, Aurora
Francesca Zanenga and
Claudio Menghi.

**Partial Reductions
for Kleene Algebra
with Single-Word
Hypotheses**

Liam Chung and Tobias
Kappé.

10:50 **Robust Verification
of Concurrent
Stochastic Games**

Angel He and David Parker.

**Practical
Refinement
Session Type
Inference**

Toby Ueno and Ankush
Das.

**Causal Liability in
Autonomous
Systems**

Kaveh Aryan, Hana
Chockler and Mohammad
Reza Mousavi.

**A Complete
Propositional
Dynamic Logic for
Regular
Expressions with
Lookahead**

Yoshiaki Nakamura.

11:10 **Computing
Fixpoints of
Learned Functions:
Chaotic Iteration
and Simple
Stochastic Games**

Paolo Baldan, Sebastian
Gurke, Barbara König and
Florian Wittbold.

**Recursive Logical
Relations for
Intuitionistic Linear
Logic Session
Types**

Stephanie Balzer,
Farzaneh Derakhshan,
Robert Harper and Yue
Yao.

**Search-based
Software Testing
for Drone
Applications: An
Experience with
the Simulink
Environment**

Annalisa Sergi, Yousef
Ahmed Abdel Rahman
Shoeib, Andrea Bombarda,
Nunzio Marco Bisceglia
and Claudio Menghi.

**Tapes as
Stochastic
Matrices of String
Diagrams**

Filippo Bonchi and
Cipriano Junior Cioffo.

11:30 **DeGAS: Gradient-
Based
Optimization of
Probabilistic
Programs without
Sampling**

Francesca Randone,
Romina Doz, Mirco
Tribastone and Luca
Bortolussi.

**A Formal Interface
for Concurrent
Search Structure
Templates**

Duc Than Nguyen and
William Mansky.

**Modeling and
Analyzing
Planning-Aware
Distributed Cyber-
Physical Systems
with Timed Graph
Transformation
Systems**

Mustafa Ghani and Holger
Giese.

**Diagrammatic
Reasoning with
Control as a
Constructor,
Applications to
Quantum Circuits**

Noé Delorme and Simon
Perdrix.

11:50 **jMT: Testing Correctness of Java Memory Models**
Lukas Panneke and Heike Wehrheim.

Reduction for Structured Concurrent Programs
Namratha Gangamreddypalli, Constantin Enea and Shaz Qadeer.

Composing Clinical Activity Guidance for Multimorbidity via Bounded Relational Analysis
Artur Boronat.

Quantum Coherence Spaces Revisited: A von Neumann (Co)Algebraic Approach
Thea Li and Vladimir Zamdzhiev.

12:10 **Demonstrating ARG-V's Generation of Realistic Java Benchmarks for SV-COMP**
Charles Moloney, Robert Dyer and Elena Sherman.

Rely-Guarantee Is Coinductive: A Proof-Centered Investigation of Inductively Approximated Coinduction
John Derrick, Chelsea Edmonds, Andrei Popescu and Jamie Wright.

Realization of relational presheaves
Yorgo Chamoun and Samuel Mimram.

12:30 **Lunch Break**
Room: Expo Area

14:00 **Ask-Me-Anything Session**
Room: Sala 500
Chair: Sebastian Junges

15:00 **ETAPS Awards**
Room: Sala 500

16:00 **Coffee Break**
Room: Expo Area

TACAS: SAT/SMT I
Room: Sala 500

ESOP: Semantics & Compilation
Room: Sala Berlino

FASE: Testing and Verification
Chair: Dirk Beyer
Room: Sala Madrid

FOSSACS: Category Theory, Coalgebra, Metric Systems
Chair: Stefan Milius
Room: Sala Londra

RUST
Chair:
Room: Sala Parigi

16:30 **Syntactically Convex Model-Based Projection for Linear Rational Arithmetic**
Anna Becchi, Grigory Fedyukovich, Arie Gurfinkel and Lev Nachmanson.

Causal-Broadcast Memory
Amir Karniel and Ori Lahav.

Abstract Symbolic Finite Automata for Algorithmic Game Semantics
Aleksandar S. Dimovski.

Varieties of Quantitative Algebras Presented by 1-Basic Monads
Jiri Adamek.

16:50

Bit-Precise Interpolation in Bitwuzla

Aina Niemetz and Mathias Preiner.

Specifying and Verifying RDMA Synchronisation

Guillaume Ambal, Max Stupple, Brijesh Dongol and Azalea Raad.

Timed Contract Automata

Bernhard Beckert, Andreas Bremer and Alexander Weigl.

Generalized Kantorovich-Rubinstein Duality beyond Hausdorff and Kantorovich

Paul Wild, Lutz Schröder, Karla Messing, Barbara König and Jonas Forster.

17:10

Orbitopal Fixing in SAT

Markus Anders, Cayden Codel and Marijn Heule.

A Formally Verified Procedure for Width Inference in FIRRTL

Keyin Wang, Xiaomu Shi, Jiaxiang Liu, Zhilin Wu, Taolve Chen, Fu Song and David N. Jansen.

Unified Timing-Aware Program Verification

Dóra Cziborová, Mihály Dobos-Kovács, Kristóf Marussy and András Vörös.

Learning bottom-up tree automata valued in monoidal categories

Quentin Aristote and Daniela Petrisan.

17:30

Smt.ml: A Multi-Backend Frontend for SMT Solvers in OCaml

João Madeira Pereira, Filipe Marques, Pedro Adão, Hichem Rami Ait-El-Hara, Léo André, Arthur Carcano, Pierre Chambart, Petar Maksimović, Nuno Santos and José Frago Santos.

Relational Hoare Logic for High-Level Synthesis of Hardware Accelerators

Izumi Tanaka, Ken Sakayori, Shinya Takamaeda-Yamazaki and Naoki Kobayashi.

Testing in Formal Verification via Witness Generation (Empirical Evaluation)

Dirk Beyer, Thomas Lemberger and Henrik Wachowitz.

A Coalgebraic Approach to Infinite Games

Benjamin Plummer and Corina Cirstea.

17:50

Automatically Tightening Access Control Policies with Restrictor

Ka Lok Wu, Christa Jenkins, Scott Stoller and Omar Chowdhury.

Linear Effects, Exceptions, and Resource Safety: A Curry-Howard Correspondence for Destructors

Sidney Congard, Guillaume Munch-Maccagnoni and Rémi Douence.

A No-go Theorem for Coalgebraic Product Construction

Mayuko Kori and Kazuki Watanabe.

18:10

Robustness Verification of Graph Neural Networks Via Lightweight Satisfiability Testing

Chia-Hsuan Lu, Tony Tan and Michael Benedikt.

The Memrist Tale: Every Thunk Every Cost All At Once

Xing Li, Yao Li, Peter Schachte and Christine Rizkallah.

A 2-categorical approach to the semantics of dependent type theory with computation axioms

Matteo Spadetto.

09:00 **Monika Henzinger: Guarding Privacy Over Time: Challenges and Solutions in Continuous Data Observation**

Room: Sala 500
Chair: Laura Kovács

10:00 **Coffee Break**

Room: Expo Area

TACAS: Automata

Room: Sala 500

ESOP: Verification

Room: Sala Berlino

FOSSACS: Lambda-Calculus, Program Semantics, Infinite Structures

Chair: Barbara König
Room: Sala Londra

SPIN

Chair:
Room: Sala Parigi

Industry Day

Chair: Giorgio Audrito
Room: Sala Madrid

10:30 **A Myhill-Nerode Characterization and Active Learning for One-Clock Timed Automata**

Kyveli Doveri, Pierre Ganty and B Srivathsan.

Validating Quantum State Preparation Programs

Liyi Li, Anshu Sharma, Zoukarneini Difaizi Tagba, Sean Frett and Alex Potanin.

Interaction Improvement

Adrienne Lancelot, Giulio Manzonetto, Guy McCusker and Gabriele Vanoni.

SPARK - Latest Industrial Challenges and Feature Development

Invited talk: Claire Dross (AdaCore)

10:50 **Modular Attractor Acceleration in Infinite-State Games**

Philippe Heim and Rayna Dimitrova.

Outrunning Big KATs: Efficient Decision Procedures for Variants of GKAT

Cheng Zhang, Qiancheng Fu, Hang Ji, Ines Del Valle, Alexandra Silva and Marco Gaboardi.

Lambda Galore

Mariangiola Dezani-Ciancaglini, Besik Dundua and Furio Honsell.

11:10 **Concurrent Permissive Strategy Templates**

Ashwani Anand, Christel Baier, Calvin Chau, Sascha Klüppelholz, Ali Mirzaei, Satya Prakash Nayak and Anne-Kathrin Schmuck.

Generating Functions Meet Occupation Measures: Invariant Synthesis for Probabilistic Loops

Darion Haase, Kevin Batz, Adrian Gallus, Benjamin Lucien Kaminski, Joost-Pieter Katoen, Lutz Klinkenberg and Tobias

K Definitions as Matching Logic Theories, Formally

Xiaohong Chen, Horatiu Cheval, Dorel Lucanu and Grigore Rosu

Formal Methods at OCamlPro: SMT Solving with Alt-Ergo and Symbolic Execution with Owi

Hichem Rami Ait-El-Hara (OCamlPro)

11:30 **LTLf Learning Meets Boolean Set Cover**

Gabriel Bathie, Nathanaël Fijalkow, Théo Matricon, Baptiste Mouillon and Pierre Vandenhove.

Error Localization, Certificates, and Hints for Probabilistic Program Verification via Slicing

Philipp Schröder, Darion Haase and Joost-Pieter Katoen.

Abstract Lipschitz Continuity: Combining Semantic and Quantitative Approximations

Marco Campion, Isabella Mastroeni, Michele Pasqua and Caterina Urban.

Towards Sustainable Industrial Use of Formal Verification for Security Certification

Adel Djoudi (Thales) and Nikolai Kosmatov (Thales)

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|-------|--|--|---|--|
| 11:50 | Faster Signature Refinement for Branching Bisimilarity Minimization Jan J.M. Martens and Maurice Laveaux. | A Program Logic for Under-approximating Worst-case Resource Usage Ziyue Jin and Di Wang. | Composition Theorems for f-Differential Privacy Annabelle McIver, Natasha Fernandes and Parastoo Sadeghi. | Semi-Formal Accuracy Analysis of an Industrial Path Computation Algorithm Franck Vedrine (CEA List), Grégoire Boussu (Thales), Nikolai Kosmatov (Thales) and Bruno Lathuilière (EDF) |
| 12:10 | MightyPPL : Model Checking MITL with Past and Pnueli Modalities Hsi-Ming Ho, S Krishna, Khushraj Madnani, Rupak Majumdar and Paritosh Pandya. | Specification-Driven Generation of Summaries for Symbolic Execution Rafael Gonçalves, Frederico Ramos, Pedro Adão and José Fragoso Santos. | Karp's NP-complete problems over first-order definable structures Aidan Healy and Bartek Klin. | Precomputation: A New Era in Multi-Stage Programming Seyed Hossein Haeri (Entropy Software Foundation) |
| 12:30 | Lunch Break Room: Expo Area | | | |
| 13:00 | ETAPS General Assembly Room: Sala 500 | | | |
| | Industry Day Chair: Claire Dross Room: Sala Madrid | | Invited Tutorial Chair: Corina Păsăreanu Room: Sala 500 | |
| 14:00 | Lean: A Unified Platform for Verification, Programming, and AI Invited talk: Leonardo de Moura (AWS) | | Mieke Massink: Model Checking in Space with Applications to Medical Image Analysis | |
| 14:40 | Check Adherence to Model in Modular and Distributed Cyber-Physical Production Systems Abdelaziz Ouazzani Chahidi (Agnostic Production Systems), Hasnaa Ait Malek (Agnostic Production Systems), Maxime Morin (Agnostic Production Systems), Nicolas Navarro (Agnostic Production Systems), Darine Rammal (CEA List), Christophe Gaston (CEA List) and Arnault Lapitre (CEA List) | | | |
| 15:00 | Semantics-Based Real-Time Verification for Web3 Grigore Rosu (Pi Squared), Dorel Lucanu (Pi Squared) and Xiaohong Chen (Pi Squared) | | | |
| 15:20 | Industrial Orchestration of Testing Tools with SeaCoral Nicolas Berthier (OCamlPro), Steven De Oliveira (OCamlPro), Nikolai Kosmatov (Thales) and Delphine Longuet (Thales) | | | |
| | 15:30: Tool Demos and Posters (with Coffee Break) | | | |
| 15:40 | On the Lookout for a “Bisimulation” Relation between Trace Sets for Early Design Evaluations Gurvan Le Guernic (DGA) | | | |
| 16:00 | Coffee Break with Tool Demos and Posters Room: Expo Area | | | |

ESOP: Types

Room: Sala Berlino

TACAS: Static**Analysis &
Program****Verification**

Room: Sala 500

AE Reports**(30mins)**

Chair:

Room: Sala Londra

Industry Day

Chair: Nikolai Kosmatov

Room: Sala Madrid

SPIN

Chair:

Room: Sala Parigi

16:30

**Lenses for
Partially-Specified
States**Kazutaka Matsuda, Minh
Nguyen and Meng Wang.**ReCheck:
Automated
Contextual
Improvement
Verifier for
Functional Calculi
across User-
Defined
Operational
Semantics**

Makoto Hamana and Kento

**From Software
Engineering to AI
Engineering:
Bridging the
Research-Industry
Gap in the Age of
Intelligent Systems**Invited talk: Andrea Basso
(Swiss Federal Institute of
Technology, EPFL and
Stanford University)

16:50

**In Cantor Space
No One Can Hear
You Stream**Martin Baillon, Assia
Mahboubi and Pierre-
Marie Pédrot.**On Deciding
Constant Runtime
of Linear Loops**Florian Frohn, Jürgen
Giesl, Peter Giesl and Nils
Lommen.

17:10

**Contextual
Metaprogramming
for Session Types**Pedro Ângelo, Atsushi
Igarashi, Yuito Murase and
Vasco T. Vasconcelos.**Data Structure
Analysis for
Binaries**Sadra Bayat Tork,
Nicholas Coughlin, Alicia
Michael, James Tobler and
Kirsten Winter**Toward a scalable
methodology for
Automating Safety
Analysis**Stefano Minopoli (Collins
Aerospace)

17:30

**Deciding not to
Decide: Sound and
Complete Effect
Inference in the
Presence of
Higher-Rank
Polymorphism**Patrycja Balik, Szymon
Jędras and Piotr Polesiuk.**Integrating String
Reasoning in
Symbolic
Execution of C
Programs**Rachel Cleaveland and
Clark Barrett.**HPC4AI and
Industry: Research
Projects and Real-
World Applications**Doriana Medic (Univ; of
Turin) and Marco Aldinucci
(Univ; of Turin)

17:50

**Bidirectional Type
Checking for
Existential Types
with Higher-Rank
Polymorphism**Hasti Toossi and Ningning
Xie.**Gillian Debugging:
Swinging Through
the (Compositional
Symbolic
Execution) Tree**Nat Karmios, Sacha-Elie
Ayoun and Philippa
Gardner.

18:10

**Auditing Rust
Crates Effectively**

Lydia Zoghbi, David Thien,
Ranjit Jhala, Deian Stefan
and Caleb Stanford.

**Same Engine,
Multiple Gears:
Parallelizing
Fixpoint Iteration at
Different
Granularities**

Ali Rasim Kocal, Michael
Schwarz, Simmo Saan and
Helmut Seidl

18:20

**Code Generation
via Meta-
programming in
Dependently Typed
Proof Assistants**

Mathis Bouverot-Dupuis
and Yannick Forster.

19:00

ETAPS Banquet

Room: Giardino Delle Meraviglie

09:00 **Guy Van Den Broeck: Symbolic Reasoning in the Age of Large Language Models**

Room: Sala 500

Chair: Sebastian Junges

10:00 **Coffee Break**

Room: Expo Area

TACAS: CPS & Quantum

Room: Sala 500

ESOP: Analysis

Room: Sala Berlino

SPIN

Chair:

Room: Sala Parigi

10:30 **Driving by Disproof: A Practical Model**

Checking Approach to Fleet

Coordination

Lukas König, Christian Schildwächter, Michaela Klauck and Christian Heinzemann.

A Category-Theoretic Framework for

Dependent Effect Systems

Satoshi Kura, Marco Gaboardi, Taro Sekiyama and Hiroshi Unno.

10:50 **VeriLHyS: a Framework for LTL**

Specification and Verification of

Hybrid Systems

Ludovico Battista, Stefano Tonetta and Gianni Zampedri.

Dependently-Typed AARA: A Non-

Affine Approach for Resource

Analysis of Higher-Order Programs

Han Xu and Di Wang.

11:10

TEMPORA: Efficient Verification of
Metric Temporal Properties with Past
in Pointwise Semantics

S. Akshay, Prerak Contractor, Paul Gastin, R Govind and B Srivathsan.

Max-Policy Iteration, Revisited

David Monniaux and Helmut Seidl.

11:30

Trace Repair Using Temporal Behavior
Trees

Sebastian Schirmer, Philipp Schitz, Johann C. Dauer, Bernd Finkbeiner and Sriram Sankaranarayanan.

Complete Abstractions for Verification

of Polymorphic Functions with

Equality

Malo Revel, Thomas Genet and Thomas Jensen.

11:50

Equivalence Checking of Quantum
Circuits via Path-Sum and Weighted
Model Counting

Wei-Jia Huang, Jingyi Mei, Alfons Laarman, Yu-Fang Chen, Christophe Charetton, Kai-Min Chung and Min-Hsiu Hsieh.

Modular Automatic Complexity

Analysis of Recursive Integer

Programs

Nils Lommen and Jürgen Giesl.

12:10

Error-Tolerant Quantum State
Discrimination: Optimization and
Quantum Circuit Synthesis

Chien-Kai Ma, Bo-Hung Chen, Tian-Fu Chen, Dah-Wei Chiou and Jie-Hong Roland Jiang.

Efficient Ranking Function-Based

Termination Analysis via Bidirectional

Decompositional Search

Yasmin Sarita, Avaljot Singh, Shaurya Gomber, Gagandeep Singh and Mahesh Viswanathan.

12:30

Lunch Break

Room: Expo Area

TACAS: Model Checking &
Hardware Verification

Room: Sala 500

Diversity, Equity, and
Inclusion

Chair: Maurice ter Beek and Ferruccio Damiani
Room: Sala Londra

Test-Comp

Chair:

Room: Sala Madrid

SPIN

Chair:

Room: Sala Parigi

14:00

**CTL* Model Checking on
Infinite Families of Finite-
State Labeled Transition
Systems**

Roberto Pettinau and Christoph
Matheja.

14:20

**Verifying First-Order
Temporal Properties of
Infinite States Systems via
Timers and Rankings**

Raz Lotan, Neta Elad, Oded Padon
and Sharon Shoham.

14:40

**Revisiting Stateful Partial-
Order Reduction**

Frédéric Herbreteau, Gérald Point
and Igor Walukiewicz.

15:00

**Deconstructing Subset
Construction: Reducing
While Determinizing**

Markus Frohme and John Nicol.

15:20

**ReVEAL: GNN-Guided
Reverse Engineering for
Formal Verification of
Optimized Multipliers**

Chen Chen, Daniela Kaufmann,
Chenhui Deng, Zhan Song, Hongce
Zhang and Cunxi Yu

15:40

**EvolveGen: Algorithmic
Level Hardware Model
Checking Benchmark
Generation through
Reinforcement Learning**

Guangyu Hu, Xiaofeng Zhou, Wei
Zhang and Hongce Zhang.

16:00

**AKR: A Model Checker for
an Adaptative
Probabilistic Knowing-
How Logic**

Valentin Cassano, Pablo Castro, Raul
Fervari and Pedro R. D'Argenio.

16:00

Coffee Break

Room: Expo Area

TACAS: SAT/SMT II

Room: Sala 500

**SV-COMP and Test-Comp Community
Meeting**

Chair:

Room: Sala Madrid

SPIN

Chair:

Room: Sala Parigi

16:30 **Parallel SMT Solving via Iterative Tree**

Partitioning

Tomáš Kolárik, Antti E.J. Hyvärinen, Seyedmasoud Asadzadeh and Natasha Sharygina.

16:50

Massively Parallel Bit-Precise

Verification with Bitwuzla and Mallob

Dominik Schreiber, Aina Niemetz and Mathias Preiner.

17:10

Exploring the SMT-LIB Benchmark

Library

Hans-Jörg Schurr, François Bobot, Mathias Preiner, Aina Niemetz, Pascal Fontaine, Cesare Tinelli and Clark Barrett.

17:30

SMT(LIA) Sampling with High

Diversity

Yong Lai, Junjie Li and Chuan Luo.

17:50

**BDD-Based Formula Approximations
for Quantified Bit-Vector Satisfiability**

Jakub Horák and Martin Jonáš.

18:10

SMTScope: Automated and Efficient

Analysis of SMT Traces

Jonáš Fiala and Peter Müller.