

## Tuesday 27th of August

8:45–10:00	<p><i>Opening</i></p> <p><b>CONCUR &amp; QEST Invited Speaker</b> (<i>Salón de actos</i>) Lorenzo Alvisi. <i>Reasoning with MAD Distributed Systems.</i></p>	
10:00–10:30	Coffee Break	
Room	<i>Salón de actos</i>	212
10:30–12:30	<p><b>CONCUR:</b> <i>Process Semantics and Modal Transition Systems</i></p> <ul style="list-style-type: none"> <li>• Martin Churchill, Peter Mosses and Mohammadreza Mousavi. <i>Modular Semantics for Transition System Specifications with Negative Premises</i></li> <li>• Giovanni Bernardi and Matthew Hennessy. <i>Mutually testing processes</i></li> <li>• Nikola Benes, Benoit Delahaye, Uli Fahrenberg, Jan Kretinsky and Axel Legay. <i>Hennessy-Milner Logic with Greatest Fixed Points as a Complete Behavioural Specification Theory</i></li> <li>• Shoham Ben-David, Marsha Chechik and Sebastian Uchitel. <i>Merging Partial Behaviour Models with Different Vocabularies</i></li> </ul>	<p><b>QEST:</b> <i>Population Models</i></p> <ul style="list-style-type: none"> <li>• Luca Bortolussi and Guido Sanguinetti. <i>Learning and designing stochastic processes from logical constraints</i></li> <li>• David Spieler. <i>Characterizing oscillatory and noisy periodic behavior in Markov population models</i></li> <li>• Luca Bortolussi and Roberta Lanciani. <i>Central Limit Approximation for Stochastic Model Checking</i></li> <li>• Laura Aspirot, Ernesto Mordecki and Gerardo Rubino. <i>Fluid Limit for the Machine Repairman Model with Phase-Type Distributions</i></li> </ul>
12:30–14:00	Lunch	
14:00–16:00	<p><b>CONCUR:</b> <i>VAS and Pushdown Systems</i></p> <ul style="list-style-type: none"> <li>• Parosh Aziz Abdulla, Richard Mayr, Arnaud Sangnier and Jeremy Sproston. <i>Solving Parity Games on Integer Vectors</i></li> <li>• Xiaojuan Cai and Mizuhito Ogawa. <i>Well-Structured Pushdown Systems</i></li> <li>• Jerome Leroux, M. Praveen and Grégoire Sutre. <i>A Relational Trace Logic for Vector Addition Systems with Application to Context-Freeness</i></li> <li>• Rupak Majumdar and Zilong Wang. <i>Expand, Enlarge, and Check for Branching Vector Addition Systems</i></li> </ul>	<p><b>QEST:</b> <i>Probabilistic Automata &amp; Markov Automata</i></p> <ul style="list-style-type: none"> <li>• Benoit Delahaye, Uli Fahrenberg, Kim Guldstrand Larsen and Axel Legay. <i>Refinement and Difference for Probabilistic Automata</i></li> <li>• Ralf Wimmer, Nils Jansen, Andreas Vorpahl, Erika Abraham, Joost-Pieter Katoen and Bernd Becker. <i>High-level Counterexamples for Probabilistic Automata</i></li> <li>• Dennis Guck, Hassan Hatefi, Holger Hermanns, Joost-Pieter Katoen and Mark Timmer. <i>Modelling, Reduction and Analysis of Markov Automata</i></li> <li>• Andrea Turrini, Christian Eisentraut, Holger Hermanns, Julia Kraemer and Lijun Zhang. <i>Deciding Bisimilarities on Distributions</i></li> </ul>
16:00–16:30	Coffee Break	
16:30–18:00	<p><b>CONCUR:</b> <i><math>\pi</math> calculus and Interaction Nets</i></p> <ul style="list-style-type: none"> <li>• Vasileios Koutavas and Matthew Hennessy. <i>Symbolic Bisimulation for a Higher-Order Distributed Language with Passivation</i></li> <li>• Reiner Hüchting, Rupak Majumdar and Roland Meyer. <i>A Theory of Name Boundedness</i></li> <li>• Andrei Dorman and Damiano Mazza. <i>A Hierarchy of Expressiveness in Concurrent Interaction Nets</i></li> </ul>	<p><b>QEST:</b> <i>Tool Demos I</i></p> <ul style="list-style-type: none"> <li>• Rastislav Lenhardt. <i>Tulip: Model Checking Probabilistic Systems using EM Algorithm</i></li> <li>• Sean Sedwards, Benoît Boyer, Kevin Corre and Axel Legay. <i>PLASMA-lab: a flexible, distributable statistical model checking library</i></li> <li>• Yi Deng, Akshay Rajhans and A. Agung Julius. <i>STRONG: A Trajectory-Based Verification Toolbox for Hybrid System</i></li> <li>• Nikolas Anastasiou and William Knottenbelt. <i>Inferring Performance Models from Location Tracking Data using the Petri Net Performance Model Construction Tool (PEPERCORN)</i></li> <li>• Barbara Kordy, Piotr Kordy, Sjouke Mauw and Patrick Schweitzer. <i>ADTool: Security Analysis with Attack-Defense Trees</i></li> </ul>
Reception at Palacio San Martín		

## Wednesday 28th of August

Room	<i>Salón de actos</i>	212
9:00–10:00	<b>CONCUR Invited Speaker</b> Phillipe Schnoebelen. <i>The Power of Well-Structured Systems</i>	<b>QEST Invited Speaker</b> Gilles Barthe. <i>Computer-aided security proofs</i>
10:00–10:30	Coffee Break	
10:30–12:30	<b>CONCUR: Linearizability and Verificaion of Concurrent Programs</b> <ul style="list-style-type: none"> <li>Klaus von Gleissenthall and Andrey Rybalchenko. <i>An Epistemic Perspective on Consistency of Concurrent Computations</i></li> <li>Hongjin Liang, Jan Hoffmann, Xinyu Feng and Zhong Shao. <i>Observing Progress Properties via Contextual Refinements</i></li> <li>Thomas A. Henzinger, Ali Sezgin and Viktor Vafeiadis. <i>Aspect-oriented linearizability proofs</i></li> <li>Andrey Kupriyanov and Bernd Finkbeiner. <i>Causality-based Verification of Multi-threaded Programs</i></li> </ul>	<b>QEST: Model Checking &amp; Systems</b> <ul style="list-style-type: none"> <li>Vladimir Klebanov, Norbert Manthey and Christian Muise. <i>SAT-based Analysis and Quantification of Information Flow in Programs</i></li> <li>Friedrich Gretz, Joost-Pieter Katoen and Annabelle McIver. <i>Prinsys – on a Quest for Probabilistic Loop Invariants</i></li> <li>David N. Jansen, Lei Song and Lijun Zhang. <i>Revisiting Weak Simulation for Substochastic Markov Chains</i></li> <li>Miyuru Dayarathna and Toyotaro Suzumura. <i>A Performance Analysis of System S, S4, and Esper via Two Level Benchmarking</i></li> </ul>
12:30–14:00	Lunch	
14:00–16:00	<b>CONCUR: Verification of Infinite Models, Model Measure and Reversibility</b> <ul style="list-style-type: none"> <li>Thomas Henzinger and Jan Otop. <i>From Model Checking to Model Measuring</i></li> <li>Jonathan Kochems and Luke Ong. <i>Safety Verification of Asynchronous Pushdown Systems with Shaped Stacks</i></li> <li>Iain Phillips and Irek Ulidowski. <i>Reversibility and Asymmetric Conflict in Event Structures</i></li> <li>Christoph Haase, Sylvain Schmitz and Philippe Schnoebelen. <i>The Power of Priority Channel Systems</i></li> </ul>	<b>QEST: Systems</b> <ul style="list-style-type: none"> <li>Vinodh Venkatesan and Ilias Iliadis. <i>Effect of Codeword Placement on the Reliability of Erasure Coded Data Storage Systems</i></li> <li>Daniel Happ and Katinka Wolter. <i>Fault-Impact Models based on delay and packet loss for IEEE 802.11g</i></li> </ul>
		<b>QEST: Tools Demos II</b> <ul style="list-style-type: none"> <li>Dieky Adzkiya and Alessandro Abate. <i>VeriSiMPL: Verification via biSimulations of MPL models</i></li> <li>Giorgio Bacci, Giovanni Bacci, Kim Guldstrand Larsen and Radu Mardare. <i>A Tool for Efficiently Computing Bisimilarity Distances for Markovian Models</i></li> <li>Ken Keefe and William Sanders. <i>Mobius Shell: A Command-line Interface For Mobius</i></li> <li>Lucas Oleksinski, Claiton Correa, Fernando Luís Dotti and Afonso Sales. <i>A CTL Model Checker for Stochastic Automata Networks</i></li> </ul>
16:00–16:30	Coffee Break	
16:30–20:00	Discovering Buenos Aires	
Starting 20:00	Banquet and Event at Café Los Angelitos	

## Thursday 29th of August

9:00–10:00	<b>CONCUR &amp; FORMATS Invited Speaker</b> ( <i>Salón de actos</i> ) Reinhard Wilhelm. <i>Impact of Resource Sharing on Performance and Performance Prediction: A Survey</i>	
10:00–10:30	Coffee Break	
Room	<i>Salón de actos</i>	212
10:30–12:30	<b>CONCUR: Stochastic Models</b> <ul style="list-style-type: none"> <li>• Shenggang Ying, Yuan Feng, Nengkun Yu and Mingsheng Ying. <i>Reachability Probabilities of Quantum Markov Chains</i></li> <li>• Holger Hermanns and Andrea Turrini. <i>Cost Preserving Bisimulations for Probabilistic Automata</i></li> <li>• Holger Hermanns, Jan Krčal and Jan Kretinsky. <i>Compositional Verification and Optimization of Interactive Markov Chains</i></li> <li>• Vincent Danos, Russ Harmer and Ricardo Honorato-Zimmer. <i>Thermodynamic graph-rewriting</i></li> </ul>	<b>FORMATS: Verification, Analysis &amp; Semantics of Timed Models I</b> <ul style="list-style-type: none"> <li>• Willibald Krenn, Dejan Nickovic and Loredana Tec. <i>Incremental Language Inclusion Checking for Networks of Timed Automata</i></li> <li>• Manuel Garnacho, Jean-Paul Bodeveix and Mamoun Filali-Amine. <i>A Mechanized Semantic Framework for Real-Time Systems</i></li> <li>• Christos Stergiou, Stavros Tripakis, Eleftherios Matsikoudis and Edward Lee. <i>On the Verification of Timed Discrete-Event Models</i></li> <li>• Eleftherios Matsikoudis and Edward Lee. <i>On Fixed Points of Strictly Causal Functions</i></li> </ul>
12:30–14:00	Lunch	
14:00–16:00	<b>CONCUR: Message-based Interacting Processes</b> <ul style="list-style-type: none"> <li>• Dimitrios Kouzapas and Nobuko Yoshida. <i>Globally Governed Session Semantics</i></li> <li>• Vivek Nigam, Carlos Olarte and Elaine Pimentel. <i>A General Proof System for Modalities in Concurrent Constraint Programming</i></li> <li>• Fabrizio Montesi and Nobuko Yoshida. <i>Compositional Choreographies</i></li> <li>• Javier Esparza and Jörg Desel. <i>On Negotiation as Concurrency Primitive</i></li> </ul>	<b>QEST: Control &amp; Games</b> <ul style="list-style-type: none"> <li>• S. Akshay, Nathalie Bertrand, Serge Haddad and Loic Helouet. <i>The steady-state control problem for Markov decision processes</i></li> <li>• Majid Zamani and Alessandro Abate. <i>Symbolic Control of Stochastic Switched Systems via Finite Abstractions</i></li> <li>• Taolue Chen, Marta Kwiatkowska, Aistis Simaitis and Clemens Wiltsche. <i>Synthesis for Multi-Objective Stochastic Games: An Application to Autonomous Urban Driving</i></li> <li>• Parosh Aziz Abdulla, Lorenzo Clemente, Richard Mayr and Sven Sandberg. <i>Stochastic Parity Games on Lossy Channel Systems</i></li> </ul>
16:00–16:30	Coffee Break	
16:30–18:00	<b>CONCUR: Principles of Automatic Verification</b> <ul style="list-style-type: none"> <li>• Claudia Carapelle, Alexander Kartzow and Markus Lohrey. <i>Satisfiability of CTL* with constraints</i></li> <li>• Sjoerd Cranen, Tim Willemsse and Bas Luttik. <i>Proof graphs for parameterized Boolean equation systems</i></li> <li>• Vijay D'Silva. <i>A Generalization of Simulation to Abstract Domains</i></li> </ul>	<b>FORMATS: Exploring Timed Formalisms</b> <ul style="list-style-type: none"> <li>• David N. Jansen. <i>More or Less True: DCTL for Continuous-Time MDPs</i></li> <li>• Guoqiang Li, Xiaojuan Cai, Mizuhito Ogawa and Shoji Yuen. <i>Nested Timed Automata</i></li> <li>• Thomas Brihaye, Morgane Estièvenart and Gilles Geeraerts. <i>On MITL and alternating timed automata</i></li> </ul>

## Friday 30th of August

Room	<i>Salón de actos</i>	212
9:00–10:00	<b>CONCUR Invited Speaker</b> Joost-Pieter Katoen. <i>Concurrency meets Probability: Theory and Practice</i>	<b>QEST Invited Speaker</b> Edmundo de Souza e Silva. <i>On the Interplay between Content Popularity and Performance in P2P Systems</i>
10:00–10:30	Coffee Break	
10:30–12:30	<b>TGC Invited Speaker</b> Luca de Alfaro. “... TBA ...”	<b>FORMATS &amp; QEST joint session: Timed Automata &amp; Simulation</b> <ul style="list-style-type: none"> <li>• Peter Höfner and Maryam Kamali. <i>Quantitative Analysis of AODV and its Variants on Dynamic Topologies using Statistical Model Checking (FORMATS)</i></li> <li>• Paolo Ballarini, Nathalie Bertrand, Andras Horvath, Marco Paolieri and Enrico Vicario. <i>Transient Analysis of Networks of Stochastic Timed Automata using Stochastic State Classes (QEST)</i></li> <li>• Daniel Reijbergen, Pieter-Tjerk de Boer, Werner Scheinhardt and Boudewijn Haverkort. <i>Automated Rare Event Simulation for Stochastic Petri Nets (QEST)</i></li> <li>• Ansgar Fehnker, Peter Hoefner, Maryam Kamali and Vinay Mehta. <i>Transition-based Mobility Models for Wireless Networks (QEST)</i></li> </ul> <b>QEST - Closing</b>
	<b>TGC: Security</b> <ul style="list-style-type: none"> <li>• Ian Batten, Shiwei Xu and Mark Ryan. <i>Dynamic measurement and protected execution: model and analysis</i></li> <li>• Dominic Duggan and Ye Wu. <i>Security Correctness for Secure Nested Transactions</i></li> </ul>	
12:30–14:00	Lunch	
14:00–16:00	<b>CONCUR: Games and Control Synthesis</b> <ul style="list-style-type: none"> <li>• Krishnendu Chatterjee and Yaron Velner. <i>Hyperplane Separation Technique for Multidimensional Mean-Payoff Games</i></li> <li>• Julian Gutierrez and Glynn Winskel. <i>Borel Determinacy of Concurrent Games</i></li> <li>• Thomas Dueholm Hansen, Rasmus Ibsen-Jensen and Peter Bro Miltersen. <i>A Faster Algorithm for Solving One-Clock Priced Timed Games</i></li> <li>• Ocan Sankur, Patricia Bouyer, Nicolas Markey and Pierre-Alain Reynier. <i>Robust Controller Synthesis in Timed Automata</i></li> </ul>	<b>TGC: <math>\pi</math>-calculus</b> <ul style="list-style-type: none"> <li>• Hans Hüttel. <i>Types for resources in psi-calculi</i></li> <li>• Johannes Borgström, Ramūnas Gutkovas, Joachim Parrow, Björn Victor and Johannes Åman Pohjola. <i>A Sorted Semantic framework for Applied Process Calculi</i></li> <li>• Neda Saeedloei and Gopal Gupta. <i>Timed pi-calculus</i></li> <li>• Marco Giunti and António Ravara. <i>Static deadlock resolution in the pi-calculus</i></li> </ul>
16:00–16:30	Coffee Break	
16:30–18:00	<b>TGC: Information Flow</b> <ul style="list-style-type: none"> <li>• Pejman Attar and Ilaria Castellani. <i>Fine-grained and Coarse-grained Reactive Noninterference</i></li> <li>• Luísa Lourenço and Luís Caires. <i>Information Flow Analysis for Valued-Indexed Data Security Compartments</i></li> <li>• Pablo Buiras, Deian Stefan, Amit Levy, Alejandro Russo and David Mazieres. <i>A Library For Removing Cache-based Attacks in Concurrent Information Flow Systems</i></li> </ul>	<b>FORMATS: Scheduling and Control</b> <ul style="list-style-type: none"> <li>• Pranav Tendulkar, Peter Poplavko and Oded Maler. <i>Symmetry Breaking for Multi-Criteria Mapping and Scheduling on Multicores</i></li> <li>• Dominik Wojtczak. <i>Optimal Control for Linear-Rate Multi-Mode Systems</i></li> <li>• Franck Cassez and Alban Grastien. <i>Predictability of Event Occurrences in Timed Systems</i></li> </ul>

## Saturday 31st of August

	<i>Room Salón de actos</i>	212
9:00–10:00	<b>TGC Invited Speaker</b> Nobuko Yoshida. <i>Multiparty session types and their application in large distributed systems</i>	<b>FORMATS: Time Petri Nets and Distributed Models</b> <ul style="list-style-type: none"> <li>• Thomas Chatain and Claude Jard. <i>Back in Time Petri Nets</i></li> <li>• Étienne André, Giuseppe Pellegrino and Laure Petrucci. <i>Precise Robustness Analysis of Time Petri Nets with Inhibitor Arcs</i></li> <li>• Bernadette Charron-Bost, Matthias Függer and Thomas Nowak. <i>Transience Bounds for Distributed Algorithms</i></li> </ul>
10:00–10:30	Coffee Break	
10:30–11:00	<b>TGC: Models, Specifications, and Proofs</b>	Coffee Break
11:00–12:30	<ul style="list-style-type: none"> <li>• Serge Haddad, Rolf Hennicker and Mikael H. Møller. <i>Specification of Asynchronous Component Systems with Modal I/O-Petri Nets</i></li> <li>• Andrea Corradini, Leila Ribeiro, Odorico Mendizabal and Fernando Luís Dotti. <i>A Formal Model for the Deferred Update Replication Technique</i></li> <li>• Gustavo Petri. <i>Studying Operational Models of Relaxed Concurrency</i></li> <li>• Martin Nordio, Cristiano Calcagno and Bertrand Meyer. <i>Certificates and Separation Logic</i></li> </ul>	<b>FORMATS: Verification, Analysis &amp; Semantics of Timed Models II</b> <ul style="list-style-type: none"> <li>• Marco Muniz, Bernd Westphal and Andreas Podelski. <i>Detecting Quasi-Equal clocks in Timed Automata</i></li> <li>• Mark Timmer, Jaco Van De Pol and Mariëlle I A Stoelinga. <i>Confluence Reduction for Markov Automata</i></li> <li>• Patricia Bouyer, Nicolas Markey and Ocan Sankur. <i>Robust Weighted Timed Automata and Games</i></li> <li>• Eugene Asarin, Nicolas Basset and Aldric Degorre. <i>Spectral Gap in Timed Automata</i></li> </ul>
12:30–13:00	Lunch	<i>FORMATS - Closing</i>
13:00–14:00		Lunch
14:00–16:00	<b>TGC Invited Speaker</b> Jane Hilston. <i>Fluid Approximation for Analysis of Collective Adaptive Systems</i>	
	<b>TGC: Quantitative Analysis</b> <ul style="list-style-type: none"> <li>• Diego Latella, Michele Loreti and Mieke Massink. <i>On-the-fly Fast Mean-Field Model-Checking</i></li> <li>• Marco Bernardo, Rocco De Nicola and Michele Loreti. <i>Group-by-Group Probabilistic Bisimilarities and their Logical Characterizations</i></li> </ul> <i>TGC - Closing</i>	
16:00–16:30	Coffee Break	