Program Overview

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20:00	Wo	rksho	ps Din	ner	Rece	ption	Ban	quet						Works	shops l	Dinner	•

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Opening Invited Speaker I Regular Session S Tool Demo TD QEST Tutorial 1 QEST Tutorial 2 T1 T2 Bussiness Meeting IFIP WG 1.8 BMCB Coffee Break L Lunch Break

Salón de Actos

Monday 26th of August

	EXPRESS/SOS	DCM	LAFM			
8:50-10:00	Opening	Opening	Opening			
	Invited Presentation	Invited Speaker	Invited Speaker			
	Martín Abadi. A Timely Dataflow Model and the Naiad System	Verónica Becher. Turing's Normal Numbers: Towards Randomness	Marcelo Frias. BLISS: Bounded Lazy Initialization with SAT- Support			
10:00-10:30		Coffee Break				
10:30-12:30	Session 1	Session 1	Session 1			
	 Iliano Cervesato and Jorge Luis Sacchini. Towards Meta-Reasoning in the Concurrent Logical Framework CLF Youssef Arbach, Kirstin Peters and Uwe Nestmann. Adding Priority to Event Structures Daniel Gebler and Simone Tini. Compositionality of Approximate Bisimulation for Probabilistic Systems Shibashis Guha, Krishna S, Chinmay Narayan and S. Arun-Kumar. A Unifying Approach to Decide Relations for Timed Automata and their Game Characterization 	 Alejandro Díaz-Caro and Gilles Dowek. The probability of nonconfluent systems Marcela Quispe-Cruz and Edward Hermann Haeusler. Proof-graphs for Minimal Implicational Logic Pieter Cuijpers. Prefix Orders as a General Model of Dynamics Pablo Arrighi and Simon Martiel. Causal Dynamics of Simplicial Complexes: the 2-dimensional case 	 Pablo Castro and Tom Maibaum. Automated Reasoning over Deontic Action Logics with Finite Vocabularies Gilles Barthe, Gustavo Betarte, Juan Diego Campo and Carlos Luna. VirtualCert: A certified idealized model of virtualization Valentin Cassano and Tom Maibaum. Actions and Events in Concurrent System Design Manuel Giménez, Mariano M. Moscato, Carlos G. López Pombo and Marcelo Frias. HeteroGenius: a framework for hybrid analysis of heterogeneous software specifications 			
12:30-14:00	Lunch					
14:00-15:30	Session 2	Invited Speaker	Session 2			
	 Daniel Gebler, Eugen-Ioan Goriac and Mohammadreza Mousavi. Algebraic Meta- Theory of Processes with Data Pieter Cuijpers. The categorical limit of a sequence of dynamical systems Luca Aceto, Eugen-Ioan Goriac and Anna Ingolfsdottir. Meta SOS - A Maude Based SOS Meta- Theory Framework 	Joos Heintz. Quiz games: a new approach to information hiding based algorithms in scientific computing Session 2 • Adriana Compagnoni, Paola Giannini, Catherine Kim, Matthew Milideo and Vishakha Sharma. A Calculus of Located Entities	 Gaston Scilingo, Maria Marta Novaira and Renzo Degiovanni. Analyzing Behavioural Scenarios over Tabular Specifications Using Model Checking Anamaria Martins Moreira and Cleverton Hentz. Grammars for Test Generation Valério Gutemberg Medeiros Jr and David Deharbe. B-Eval: a plug-in to extend Atelier-B with current verification technologies 			
15:30-16:00		Coffee Break				
16:00-17:30		Session 3	Session 3			
		 Carlos Ramirez, Jorge A. Pérez, Jesus Aranda and Juan F. Diaz. Towards Formal, Interaction- based Models of Grid Computing Infrastructures Mario Benevides, Isaque Lima, Pedro Rougemont and Rafael Nader. Using HMM in Strategic Games 	 Pablo Bendersky, Juan Galeotti and Diego Garbervetsky. The DynAlloy Visualizer Germán Regis, Fernando Villar and Nicolás Ricci. Fluent Logic Workflow Analyser: A tool for The Verification of Workflow Properties Rodrigo Castaño, Juan Galeotti, Diego Garbervetsky, Jonathan Tapicer and Edgardo Zoppi. On verifying resource contracts using Code Contracts 			
Starting 20:00		Workshop Dinner				

Tuesday 27th of August

8:45-10:00	Opening				
	CONCUR & QEST Invited Speaker (Salón de actos)				
	Lorenzo Alvisi. Reasoning with MAD Distributed Syste	th MAD Distributed Systems.			
10:00-10:30	Coffee Break				
Room	212 Salón de actos				
10:30-12:30	 CONCUR: Process Semantics and Modal Transition Systems Martin Churchill, Peter Mosses and Mohammadreza Mousavi. Modular Semantics for Transition System Specifications with Negative Premises Giovanni Bernardi and Matthew Hennessy. Mutually testing processes Nikola Benes, Benoit Delahaye, Uli Fahrenberg, Jan Kretinsky and Axel Legay. Hennessy-Milner Logic with Greatest Fixed Points as a Complete Behavioural Specification Theory Shoham Ben-David, Marsha Chechik and Sebastian Uchitel. Merging Partial Behaviour Models with Different Vocabularies 	 QEST: Population Models Luca Bortolussi and Guido Sanguinetti. Learning and designing stochastic processes from logical constraints David Spieler. Characterizing oscillatory and noisy periodic behavior in Markov population models Luca Bortolussi and Roberta Lanciani. Central Limit Approximation for Stochastic Model Checking Laura Aspirot, Ernesto Mordecki and Gerardo Rubino. Fluid Limit for the Machine Repairman Model with Phase-Type Distributions 			
12:30-14:00	Li	ınch			
14:00-16:00	CONCUR: VAS and Pushdown Systems • Parosh Aziz Abdulla, Richard Mayr, Arnaud	QEST: <i>Probabilistic Automata & Markov Automata</i> • Benoit Delahaye, Uli Fahrenberg, Kim Guldstrand			
	Sangnier and Jeremy Sproston. Solving Parity Games on Integer Vectors * Xiaojuan Cai and Mizuhito Ogawa. Well- Structured Pushdown Systems • Jerome Leroux, M. Praveen and Grégoire Sutre. A Relational Trace Logic for Vector Addition Systems with Application to Context-Freeness • Rupak Majumdar and Zilong Wang. Expand, Enlarge, and Check for Branching Vector Addition Systems	 Larsen and Axel Legay. Refinement and Difference for Probabilistic Automata Ralf Wimmer, Nils Jansen, Andreas Vorpahl, Erika Abraham, Joost-Pieter Katoen and Bernd Becker. High-level Counterexamples for Probabilistic Automata Dennis Guck, Hassan Hatefi, Holger Hermanns, Joost-Pieter Katoen and Mark Timmer. Modelling, Reduction and Analysis of Markov Automata Andrea Turrini, Christian Eisentraut, Holger Hermanns, Julia Kraemer and Lijun Zhang. Deciding Bisimilarities on Distributions 			
16:00-16:30	Coffe	e Break			
16:30-18:00	 CONCUR: π calculus and Interaction Nets Vasileios Koutavas and Matthew Hennessy. Symbolic Bisimulation for a Higher-Order Distributed Language with Passivation Reiner Hüchting, Rupak Majumdar and Roland Meyer. A Theory of Name Boundedness Andrei Dorman and Damiano Mazza. A Hierarchy of Expressiveness in Concurrent Interaction Nets 	 QEST: Tool Demos I Rastislav Lenhardt. Tulip: Model Checking Probabilistic Systems using EM Algorithm Sean Sedwards, Benoît Boyer, Kevin Corre and Axel Legay. PLASMA-lab: a flexible, distributable statistical model checking library Yi Deng, Akshay Rajhans and A. Agung Julius. STRONG: A Trajectory-Based Verification Toolbox for Hybrid System Nikolas Anastasiou and William Knottenbelt. Inferring Performance Models from Location Tracking Data using the Petri Net Performance Model Construction Tool (PEPERCORN) Barbara Kordy, Piotr Kordy, Sjouke Mauw and Patrick Schweitzer. ADTool: Security Analysis with Attack-Defense Trees 			
Starting 10.00					
Starting 19:00	Reception at Palacio San Martín				

Wednesday 28th of August

Room	212	Salón de actos			
9:00-10:00	CONCUR Invited Speaker	QEST Invited Speaker			
	Phillipe Schnoebelen. <i>The Power of Well-Structured Systems</i>	Gilles Barthe. Computer-aided security proofs			
10:00-10:30	Coffee Break				
10:30-12:30	 CONCUR: Linearizability and Verification of Concurrent Programs Klaus von Gleissenthall and Andrey Rybalchenko. An Epistemic Perspective on Consistency of Concurrent Computations Hongjin Liang, Jan Hoffmann, Xinyu Feng and Zhong Shao. Characterizing Progress Properties of Concurrent Objects via Contextual refinements Thomas A. Henzinger, Ali Sezgin and Viktor Vafeiadis. Aspect-oriented linearizability proofs Andrey Kupriyanov and Bernd Finkbeiner. Causality-based Verification of Multi-threaded Programs 	 QEST: Model Checking & Systems Vladimir Klebanov, Norbert Manthey and Christian Muise. SAT-based Analysis and Quantification of Information Flow in Programs Friedrich Gretz, Joost-Pieter Katoen and Annabelle McIver. Prinsys – on a Quest for Probabilistic Loop Invariants David N. Jansen, Lei Song and Lijun Zhang. Revisiting Weak Simulation for Substochastic Markov Chains Miyuru Dayarathna and Toyotaro Suzumura. A Performance Analysis of System S, S4, and Esper via Two Level Benchmarking 			
12:30-14:00	Lunch				
14:00-16:00	CONCUR: Verification of Infinite Models, Model Measure and Reversibility • Thomas Henzinger and Jan Otop. From Model Checking to Model Measuring • Jonathan Kochems and Luke Ong. Safety Verification of Asynchronous Pushdown Systems with Shaped Stacks • Iain Phillips and Irek Ulidowski. Reversibility and Asymmetric Conflict in Event Structures • Christoph Haase, Sylvain Schmitz and Philippe Schnoebelen. The Power of Priority Channel Systems	 Vinodh Venkatesan and Ilias Iliadis. Effect of Codeword Placement on the Reliability of Erasure Coded Data Storage Systems Daniel Happ and Katinka Wolter. Fault-Impact Models based on delay and packet loss for IEEE 802.11g Dieky Adzkiya and Alessandro Abate. VeriSiMPL: Verification via biSimulations of MPL models Giorgio Bacci, Giovanni Bacci, Kim Guldstrand Larsen and Radu Mardare. A Tool for Efficiently Computing Bisimilarity Distances for Markovian Models Ken Keefe and William Sanders. Mobius Shell: A Command-line Interface For Mobius Lucas Oleksinski, Claiton Correa, Fernando Luís Dotti and Afonso Sales. A CTL Model Checker for Stochastic Automata Networks 			
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	CONCUR & FORMATS Invited Speaker (Salón de actos) Reinhard Wilhelm. Impact of Resource Sharing on Performance and Performance Prediction: A Survey				
10:00-10:30	Coffee Break				
Room	212 Salón de actos				
10:30-12:30	 CONCUR: Stochastic Models Shenggang Ying, Yuan Feng, Nengkun Yu and Mingsheng Ying. Reachability Probabilities of Quantum Markov Chains Holger Hermanns and Andrea Turrini. Cost Preserving Bisimulations for Probabilistic Automata Holger Hermanns, Jan Krcal and Jan Kretinsky. Compositional Verification and Optimization of Interactive Markov Chains Vincent Danos, Russ Harmer and Ricardo Honorato-Zimmer. Thermodynamic graphrewriting 	 FORMATS: Verification, Analysis & Semantics of Timed Models I Eugene Asarin, Nicolas Basset and Aldric Degorre Spectral Gap in Timed Automata Manuel Garnacho, Jean-Paul Bodeveix and Mamoun Filali-Amine. A Mechanized Semantic Framework for Real-Time Systems Christos Stergiou, Stavros Tripakis, Eleftherios Matsikoudis and Edward Lee. On the Verification Timed Discrete-Event Models Eleftherios Matsikoudis and Edward Lee. On Fixed Points of Strictly Causal Functions 			
12:30-14:00	Lunch				
14:00-16:00	 CONCUR: Message-based Interacting Processes Dimitrios Kouzapas and Nobuko Yoshida. Globally Governed Session Semantics Vivek Nigam, Carlos Olarte and Elaine Pimentel. A General Proof System for Modalities in Concurrent Constraint Programming Fabrizio Montesi and Nobuko Yoshida. Compositional Choreographies Javier Esparza and Jörg Desel. On Negotiation as Concurrency Primitive 	 QEST: Control & Games S. Akshay, Nathalie Bertrand, Serge Haddad and Loic Helouet. The steady-state control problem for Markov decision processes Majid Zamani and Alessandro Abate. Symbolic Control of Stochastic Switched Systems via Finite Abstractions Taolue Chen, Marta Kwiatkowska, Aistis Simaitis and Clemens Wiltsche. Synthesis for Multi-Objective Stochastic Games: An Application to Autonomous Urban Driving Parosh Aziz Abdulla, Lorenzo Clemente, Richard Mayr and Sven Sandberg. Stochastic Parity Games on Lossy Channel Systems 			
16:00-16:30	Coffee Break				
16:30-18:00	 CONCUR: Principles of Automatic Verification Claudia Carapelle, Alexander Kartzow and Markus Lohrey. Satisfiability of CTL* with constraints Sjoerd Cranen, Tim Willemse and Bas Luttik. Proof graphs for parameterized Boolean equation systems Vijay D'Silva. A Generalization of Simulation to Abstract Domains 	 FORMATS: Exploring Timed Formalisms David N. Jansen. More or Less True: DCTL for Continuous-Time MDPs Guoqiang Li, Xiaojuan Cai, Mizuhito Ogawa and Shoji Yuen. Nested Timed Automata Thomas Brihaye, Morgane Estiévenart and Gilles Geeraerts. On MITL and alternating timed automata 			

Friday 30th of August

Room	212	Salón de actos			
9:00-10:00	CONCUR Invited Speaker Joost-Pieter Katoen. Concurrency meets Probability:	QEST Invited Speaker Edmundo de Souza e Silva. <i>On the Interplay between</i>			
	Theory and Practice	Content Popularity and Performance in P2P Systems			
10:00-10:30	Coffee Break				
10:30-12:30	TGC Invited Speaker Luca de Alfaro. Crowdsourcing Quality Information	FORMATS & QEST joint session: Timed Automata & Simulation • Peter Höfner and Maryam Kamali. Quantitative Analysis of AODV and its Variants on Dynamic			
	 TGC: Security Ian Batten, Shiwei Xu and Mark Ryan. Dynamic measurement and protected execution: model and analysis Dominic Duggan and Ye Wu. Security Correctness for Secure Nested Transactions 	 Analysis of AODV and its Variants on Dynamic Topologies using Statistical Model Checking (FORMATS) Paolo Ballarini, Nathalie Bertrand, Andras Horvath, Marco Paolieri and Enrico Vicario. Transient Analysis of Networks of Stochastic Timed Automata using Stochastic State Classes (QEST) Daniel Reijsbergen, Pieter-Tjerk de Boer, Werner Scheinhardt and Boudewijn Haverkort. Automated Rare Event Simulation for Stochastic Petri Nets (QEST) Ansgar Fehnker, Peter Hoefner, Maryam Kamali and Vinay Mehta. Transition-based Mobility Models for Wireless Networks (QEST) QEST - Closing 			
12:30-14:00	Lunch				
14:00-16:00	 CONCUR: Games and Control Synthesis Krishnendu Chatterjee and Yaron Velner. Hyperplane Separation Technique for Multidimensional Mean-Payoff Games Julian Gutierrez and Glynn Winskel. Borel Determinacy of Concurrent Games Thomas Dueholm Hansen, Rasmus Ibsen-Jensen and Peter Bro Miltersen. A Faster Algorithm for Solving One-Clock Priced Timed Games Ocan Sankur, Patricia Bouyer, Nicolas Markey and Pierre-Alain Reynier. Robust Controller Synthesis in Timed Automata 	 TGC: π-calculus Hans Hüttel. Types for resources in psi-calculi Johannes Borgström, Ramūnas Gutkovas, Joachim Parrow, Björn Victor and Johannes Åman Pohjola. A Sorted Semantic framework for Applied Process Calculi Neda Saeedloei and Gopal Gupta. Timed pi-calculus Marco Giunti and António Ravara. Static deadlock resolution in the pi-calculus 			
16:00-16:30	Coffee Break				
16:30-18:00	 TGC: Information Flow Pejman Attar and Ilaria Castellani. Fine-grained and Coarse-grained Reactive Noninterference Luísa Lourenço and Luis Caires. Information Flow Analysis for Valued-Indexed Data Security Compartments Pablo Buiras, Deian Stefan, Amit Levy, Alejandro Russo and David Mazieres. A Library For Removing Cache-based Attacks in Concurrent Information Flow Systems 	 FORMATS: Scheduling and Control Pranav Tendulkar, Peter Poplavko and Oded Maler. Symmetry Breaking for Multi-Criteria Mapping and Scheduling on Multicores Dominik Wojtczak. Optimal Control for Linear-Rate Multi-Mode Systems Franck Cassez and Alban Grastien. Predictability of Event Occurrences in Timed Systems 			

Saturday 31st of August

Room	212	Salón de actos
9:00-10:00	TGC Invited Speaker Nobuko Yoshida. Multiparty session types and their application in large distributed systems	 FORMATS: Time Petri Nets and Distributed Models Thomas Chatain and Claude Jard. Back in Time Petri Nets Étienne André, Giuseppe Pellegrino and Laure Petrucci. Precise Robustness Analysis of Time Petri Nets with Inhibitor Arcs Bernadette Charron-Bost, Matthias Függer and Thomas Nowak. Transience Bounds for Distributed Algorithms
10:00-10:30	Coffee Break	0.55
10:30-11:00 11:00-12:30 12:30-13:00	 TGC: Models, Specifications, and Proofs Serge Haddad, Rolf Hennicker and Mikael H. Møller. Specification of Asynchronous Component Systems with Modal I/O-Petri Nets Andrea Corradini, Leila Ribeiro, Odorico Mendizabal and Fernando Luís Dotti. A Formal Model for the Deferred Update Replication Technique Gustavo Petri. Studying Operational Models of Relaxed Concurrency Martin Nordio, Cristiano Calcagno and Bertrand Meyer. Certificates and Separation Logic 	FORMATS: Verification, Analysis & Semantics of Timed Models II Marco Muniz, Bernd Westphal and Andreas Podelski. Detecting Quasi-Equal clocks in Timed Automata Mark Timmer, Jaco Van De Pol and Mariëlle I A Stoelinga. Confluence Reduction for Markov Automata Patricia Bouyer, Nicolas Markey and Ocan Sankur. Robust Weighted Timed Automata and Games Willibald Krenn, Dejan Nickovic and Loredana Tec. Incremental Language Inclusion Checking for Networks of Timed Automata
13:00-14:00	Lunch	FORMATS - Closing Lunch
14:00-16:00	TGC Invited Speaker Jane Hilston. Fluid Approximation for Analysis of Collective Adaptive Systems TGC: Quantitative Analysis • Diego Latella, Michele Loreti and Mieke Massink. On-the-fly Fast Mean-Field Model-Checking • Marco Bernardo, Rocco De Nicola and Michele Loreti. Group-by-Group Probabilistic Bisimilarities and their Logical Characterizations TGC - Closing	
16:00-16:30	Coffee Break	

Saturday 31st of August

	MEALS	TRENDS	YR-CONCUR
9:00-10:30	 TRENDS & MEALS Invited Speakers Holger Hermanns. El futuro de la en concurrente Mohammad Reza Mousavi. Concurr Software Systems: From Theory to P 	señanza de la programación ency Theory Applied to Testing	 Session 1 Luis Pino, Filippo Bonchi and Frank Valencia. Efficient Computation of Program Equivalence for Confluent Concurrent Constraint Programming Dominik Bucher, Ilias Garnier, Ricardo Honorato and Vincent Danos. Decomposition of Strongly Coupled Systems Silvia Pelozo. Quantitative verification framework for distributed random protocols
10:30-11:00		Coffee Break	-
11:00-12:30	Session "Empanadas"	Invited Speakers	Session 2
	 Thomas Noll. Characterization of Failure Effects on AADL Models Sebastian Uchitel. Abstractions for Behaviour Validation Carlos Lopez Pombo. Satisfiability in general logics and software analysis 	 David de Frutos Escrig. Semantics of Concurrent Processes: Unification and New Directions Uwe Nestmann. T.B.A. 	 Christian J. Bell. Sound Loop Paralellization Gervasio Perez and Sergio Yovine. Formal Design and Implementation of a Platform-Agnostic Template Library for Concurrent Programming Paulin Fournier. Parameterized verification of networks with many identical probabilistic timed processes
12:30-13:00	Lunch	Business meeting IFIP WG 1.8	Lunch
13:00-14:00	Lunch	Lunch	Lunch
14:00-16:00	 Session "Asado" Valeria Bengolea. Incremental SAT Solving and Tight Bounds for Test Generation under Rich Contracts Sjoerd Cranen. A translation from CTL* to the first-order μ-calculus Guillaume Hoffmann. Tableaux for Relation-Changing Modal Logics Nazareno Aguirre. Automated Goal Operationalisation based on Interpolation and SAT Solving Julien Lange. Choreography Synthesis as Contract Agreement 		 Session 3 Paul Hunter, Guillermo Perez and Jean-Francois Raskin. Mean-payoff games with incomplete information Andrey Gorlin. Probabilistic Model Checking via Logic Programming Carlos E. Budde. A theory for the semantics of continuous systems with stochastic and structural non- determinism
16:00-16:30		Coffee Break	
16:30-18:00	 Session "Queso y Dulce" Uli Fahrenberg. Generalized Quantitative Analysis of Metric Transition Systems Luis Fernando Pino Duque. Algorithms for Bisimilarity in Concurrent Constraint Programming Matias D. Lee. Axiomatizing bisimilarity of Probabilistic Transition System Specifications Holger Hermanns. The timing of Stuxnet 		
Starting 20:00			