



SAPIENZA
UNIVERSITÀ DI ROMA



CONCUR 2014

The 25th International Conference on Concurrency Theory
2-5 September, Rome, Italy

Conference Programme

Tuesday, 2nd September 2014 (Aula del Chiostro)

09:00-10:00	Invited Talk - Joint with IFIP-TCS (Chair: Davide Sangiorgi) <i>Jane Hillston</i> . The Benefits of Sometimes Not Being Discrete
10:00-10:30	Coffee break
10:30-12:30	PROCESS CALCULI (Chair: David Frutos De Escrig) <ul style="list-style-type: none">• <i>Marco Carbone, Fabrizio Montesi and Carsten Schuermann</i>. Choreographies, Logically• <i>Elena Giachino, Naoki Kobayashi and Cosimo Laneve</i>. Deadlock analysis of unbounded process networks• <i>Davide Sangiorgi and Xian Xu</i>. Trees from Functions as Processes• <i>Jean-Marie Madiot, Damien Pous and Davide Sangiorgi</i>. Bisimulations up-to: beyond first-order transition systems
12:30-14:00	Lunch
14:00-15:30	MODEL CHECKING AND ABSTRACTION (Chair: Barbara Konig) <ul style="list-style-type: none">• <i>Benjamin Aminof, Tomer Kotek, Sasha Rubin, Francesco Spegni and Helmut Veith</i>. Parameterized Model Checking of Rendezvous Systems• <i>Igor Konnov, Helmut Veith and Josef Widder</i>. On the Completeness of Bounded Model Checking for Threshold-Based Distributed Algorithms: Reachability• <i>Alexander Kaiser, Daniel Kroening and Thomas Wahl</i>. Lost in Abstraction: Monotonicity in Multi-Threaded Programs
15:30-16:00	Coffee break
16:00-18:00	SYNTHESIS (Chair: Paul Gastin) <ul style="list-style-type: none">• <i>Guy Avni and Orna Kupferman</i>. Synthesis from Component Libraries with Costs• <i>Nicolas Basset, Marta Kwiatkowska and Clemens Wiltsche</i>. Compositional Controller Synthesis for Stochastic Games• <i>Simon Laursen, Kim Guldstrand Larsen and Jiri Srba</i>. Synchronizing Strategies under Partial Observability• <i>Youssef Oualhadj, Pierre-Alain Reynier and Ocan Sankur</i>. Probabilistic Robust Timed Games
18:30-20:30	Welcome Reception (In the cloister of the Conference Venue)

Wednesday, 3rd September 2014 (Aula del Chiostro)

09:00-10:00	Invited Talk (Chair: Paolo Baldan) <i>Javier Esparza</i> . Deterministic negotiations: Concurrency for free
10:00-10:30	Coffee break
10:30-12:30	QUANTITATIVE MODELS (Chair: Jane Hillston) <ul style="list-style-type: none">• <i>Taolue Chen, Yuan Feng, David Rosenblum and Guoxin Su</i>. Perturbation Analysis in Verification of Discrete-Time Markov Chains• <i>Laurent Doyen, Thierry Massart and Mahsa Shirmohammadi</i>. Robust Synchronization in Markov Decision Processes• <i>Holger Hermanns, Jan Krcal and Jan Kretinsky</i>. Probabilistic Bisimulation: Naturally on Distributions• <i>Patricia Bouyer, Nicolas Markey and Raj Mohan Matteplackel</i>. Averaging in LTL
12:30-14:00	Lunch
14:00-15:00	25th Anniversary Talk (Chair: Jos Baeten) <i>Tony Hoare</i> . Laws of Programming: The Algebraic Unification of Theories of Concurrency
15:00-23:00	Excursion & Conference Dinner

Thursday, 4th September 2014 (Aula del Chiostro)

09:30-10:30	Invited Talk (Chair: Daniele Gorla) <i>Vasco Vasconcelos</i> . The Progress of Session Types
10:30-11:00	Coffee break
11:00-12:30	AUTOMATA AND MULTITHREADING (Chair: Javier Esparza) <ul style="list-style-type: none">• <i>Lorenzo Clemente, Frédéric Herbreteau and Grégoire Sutre</i>. Decidable Topologies for Communicating Automata with FIFO and Bag Channels• <i>C. Aiswarya, Paul Gastin and K. Narayan Kumar</i>. Controllers for the Verification of Communicating Multi-Pushdown Systems• <i>Kazuhide Yasukata, Naoki Kobayashi and Kazutaka Matsuda</i>. Pairwise Reachability Analysis for Higher Order Concurrent Programs by Higher-Order Model Checking
12:30-14:00	Lunch
14:00-15:30	COMPLEXITY (Chair: Philippe Schnoebelen) <ul style="list-style-type: none">• <i>Anthony Widjaja Lin and Sanming Zhou</i>. A linear-time algorithm for the orbit problem over cyclic groups• <i>Yuan Feng and Lijun Zhang</i>. A Nearly Optimal Upper Bound for the Self-Stabilization Time in Herman's Algorithm• <i>Reiner Hüchting, Rupak Majumdar and Roland Meyer</i>. Bounds on Mobility
15:30-16:00	Coffee break
16:00-18:00	PROCESS CALCULI AND TYPES (Chair: Bjorn Victor) <ul style="list-style-type: none">• <i>Rémy Chrétien, Veronique Cortier and Stephanie Delaune</i>. Typing messages for free in security protocols: the case of equivalence properties• <i>Giovanni Bernardi and Matthew Hennessy</i>. Using higher-order contracts to model session types (Extended abstract)• <i>Massimo Bartoletti, Alceste Scalas and Roberto Zunino</i>. A semantic deconstruction of session types• <i>Laura Bocchi, Weizhen Yang and Nobuko Yoshida</i>. Timed Multiparty Session Types

Friday, 5th September 2014 (Aula del Chiostro)

09:00-10:00	Invited Talk - Joint with TGC (Chair: Emilio Tuosto) <i>Catuscia Palamidessi</i> . Generalized bisimulation metrics
10:00-10:30	Coffee break
10:30-12:30	CATEGORIES, GRAPHS AND QUANTUM SYSTEMS (Chair: Fabio Gadducci) <ul style="list-style-type: none">• <i>Filippo Bonchi, Pawel Sobocinski and Fabio Zanasi</i>. A Categorical Semantics of Signal Flow Graphs• <i>Natsuki Urabe and Ichiro Hasuo</i>. Generic Forward and Backward Simulations III: Quantitative Simulations by Matrices• <i>Barbara Koenig and Jan Stueckrath</i>. A General Framework for Well-Structured Graph Transformation Systems• <i>Yangjia Li and Mingsheng Ying</i>. (Un)decidable Problems about Reachability of Quantum Systems
12:30-14:00	Lunch
14:00-15:30	AUTOMATA AND TIME (Chair: Stephanie Delaune) <ul style="list-style-type: none">• <i>Normann Decker, Peter Habermehl, Martin Leucker and Daniel Thoma</i>. Ordered Navigation on Multi-attributed Data Words• <i>Karin Quaas</i>. Verification for Timed Automata extended with Unbounded Discrete Data Structure• <i>Shibashis Guha, Chinmay Narayan and S. Arun-Kumar</i>. Reducing Clocks in Timed Automata while Preserving Bisimulation
15:30-16:00	Coffee break
16:00-17:30	GAMES (Chair: TBA) <ul style="list-style-type: none">• <i>Krishnendu Chatterjee</i>. Qualitative Concurrent Parity Games: Bounded Rationality• <i>Thomas Brihaye, Gilles Geeraerts, Shankara Narayanan Krishna, Lakshmi Manasa, Benjamin Monmege and Ashutosh Trivedi</i>. Adding Negative Prices to Priced Timed Games (synthesis)• <i>Falak Sher and Joost-Pieter Katoen</i>. Tight Game Abstractions of Probabilistic Automata