

IEEE Symposium On Logic In Computer Science 2005

Program

Preliminary Program

26 - 29 June 2005

Session 1: Sunday 26th June 9am to 10:25am

Session Chair: Prakash Panangaden

9:00 - 10:00 Glynn Winskel (Invited Speaker): Relations in Concurrency

10:00 - 10:25 Jos C.M. Baeten and Flavio Corradini: A characterization of regular expressions in process algebra.

10:25 - 10:50 Coffee Break

Session 2: Sunday 26th June 10:50am to 12:30pm

Session Chair: Martin Grohe

10:50-11:15 Anuj Dawar and Martin Otto: Modal characterisation theorems over special classes of frames.

11:15-11:40 Leonid Libkin and Pablo Barcelo: Temporal logics over unranked trees.

11:40-12:05 Hannu Niemistö: On locality and uniform reduction

12:05-12:30 Maarten Marx and Evan Goris: Looping caterpillars.

12:30 - 2:00 Lunch

Session 3: Sunday 26th June 2:00pm to 3:40pm

3:40 - 4:00 Coffee Break Session Chair: Frank Pfenning

2:00-2:25 Geoffrey Washburn and Stephanie Weirich: Generalizing parametricity using information-flow.

2:25-2:50 Masahito Hasegawa: Relational parametricity and control.

2:50-3:15 Paul-André Melliès and Jérôme Vouillon: Recursive polymorphic types and parametricity in an operational framework.

3:15-3:40 Giuseppe Castagna, Rocco De Nicola and Daniele Varacca: Semantic Subtyping for the π -calculus.

Session 4: Sunday 26th June 4:00pm to 6:00pm

Session Chair: Prakash Panangaden

Short paper session

Valentin Goranko: Infinite-state model checking in modal logic

Jiri Adamek and Stefan Milius: Wellfounded coalgebras

Bodil Biering, Lars Birkedal and Noah Torp-Smith: Higher-order separation logic

Paulo Mateus and Amilcar Sernadas: Complete exogenous quantum propositional logic

Mehrnoosh Sadrzadeh: Quantales for reasoning about security protocols

Hyunjun Eo, Seunghwan O and Nikolay Shilov: Finite game semantics for propositional program logics

Ellie D'Hondt: Distributed measurement-based quantum computation

Yannick Delbecque: Internal traces and abstract measurements

Bassem Sayrafi, Dirk Van Gucht and Marc Gyssens: Measures and measure-based constraints

Limin Jia and David Walker: A refined proof theory for reasoning about separation

Seunghwan H. Lee: Problems in nesting logics to higher order

Dominic Hughes: Classical logic = Fibred MLL.

Session 5: Monday 27th June 9am to 10:25am

Session Chair: Neil Immerman

9:00 - 10:00 Michael Benedikt (Invited Speaker): An insider's guide to logic in telecommunications data.

10:00 - 10:25 Albert Atserias: On digraph coloring problems and treewidth duality.

10:25 - 10:50 Coffee Break

Session 6: Monday 27th June 10:50am to 12:30pm

Session Chair: Rajeev Alur

10:50-11:15 Javier Esparza, Antonin Kucera and Richard Mayr: Quantitative analysis of probabilistic pushdown automata: expectations and variances.

11:15-11:40 Richard Mayr, Parosh Abdulla and Noomene Ben Henda: Verifying infinite Markov chains with a finite attractor or the global coarseness property.

11:40-12:05 Christel Baier and Marcus Groesser: Recognizing omega-regular languages with probabilistic automata.

12:05-12:30 Jerome Leroux: A polynomial-time Presburger criterion and synthesis for number decision diagrams.

12:30 - 2:00 Lunch

Session 7: Monday 27th June 2:00pm to 3:40pm

Session Chair: Martin Grohe

2:00-2:25 Patrice Godefroid and Michael Huth: Model checking vs: generalized model checking: semantic minimizations for temporal logics.

2:25-2:50 Markus Lohrey: Model checking hierarchical structures.

2:50-3:15 Krishnendu Chatterjee, Thomas A. Henzinger and Marcin Jurdzinski: Mean-payoff parity games.

3:15-3:40 Joel Ouaknine and James Worrell: On the decidability of metric temporal logic.

3:40 - 4:00 Coffee Break

Session 8: Monday 27th June 4:00pm to 5:40pm

Session Chair: Peter Selinger

4:00-4:25 Clemens Kupke and Yde Venema: Closure properties of coalgebra automata.

4:25-4:50 Lutz Strassburger and Francois Lamarche: Constructing free boolean categories.

4:50-5:15 Luigi Santocanale: Completions of mu-algebras.

5:15-5:40 Martin Hofmann: Proof-theoretic approach to description logic.

Business Meeting Monday 27th June 6:00 to 7:00

Session 9: Tuesday 28th June 9am to 10:25am

Session Chair: Prakash Panangaden

9:00 - 10:00 Jane Hillston (Invited Speaker): Process algebras for quantitative analysis.

10:00 - 10:25 Thorsten Altenkirch and Jonathan Grattage: A functional quantum programming language.

10:25 - 10:50 Coffee Break

Session 10: Tuesday 28th June 10:50am to 12:30pm

Session Chair: Peter Selinger

10:50-11:15 Hongseok Yang, Lars Birkedal and Noah Torp-Smith: Semantics of separation-logic typing and higher-order frame rules.

11:15-11:40 Kohei Honda, Martin Berger and Nobuko Yoshida: An observationally complete logic for imperative higher-order functions.

11:40-12:05 Iovka Boneva, Jean-Marc Talbot and Sophie Tison: Expressiveness of a spatial logic for trees.

12:05-12:30 Christopher Hardin: Proof theory for Kleene algebra.

12:30 - 2:00 Lunch

Session 11: Tuesday 28th June 2:00pm to 3:40pm

Session Chair: Alan Jeffrey

2:00-2:25 Glynn Winskel: Name generation and linearity.

2:25-2:50 Pawel Sobocinski and Vladimiro Sassone: Reactive systems over cospans.

2:50-3:15 Bernd Finkbeiner and Sven Schewe: Uniform distributed synthesis.

3:15-3:40 Bruno Blanchet, Martin Abadi and Cédric Fournet: Automated verification of selected equivalences for security protocols.

3:40 - 4:00 Coffee Break

Session 12: Tuesday 28th June 4:00pm to 5:00pm

Session Chair: Phokion Kolaitis

4:00 - 5:00 Solomon Feferman (Invited Speaker): Tarski's influence on computer science

Conference Banquet 6:30

Session 13: Wednesday 29th June 9am to 10:25am

Session Chair: Frank Pfenning

9:00 - 10:00 Walter Fontana (Invited Speaker): The logic of systems biology.

10:00 - 10:25 Soren Lassen: Normal-form bisimulation for call-by-value lambda calculus.

10:25 - 10:50 Coffee Break

Session 14: Wednesday 29th June 10:50am to 12:30pm

Session Chair: Phil Scott

10:50-11:15 Alexis Saurin: Separation with streams in the $\Lambda\mu$ -calculus.

11:15-11:40 Ugo Dal Lago: The geometry of linear higher-order recursion.

11:40-12:05 Claudia Faggian and Francois Maurel: Ludics nets, a model of concurrent interaction.

12:05-12:30 Paul-André Melliès: A fully complete model of propositional linear logic.

12:30 - 2:00 Lunch

Session 15: Wednesday 29th June 2:00pm to 3:40pm

Session Chair: Radha Jagadeesan

2:00-2:25 Michael Maher: Herbrand constraint abduction.

2:25-2:50 Limin Jia, Frances Spalding, David Walker and Neal Glew: Certifying compilation for a language with stack allocation.

2:50-3:15 Abbas Edalat and Dirk Pattinson: Inverse and implicit functions in domain theory.

3:15-3:40 Martin Escard and Ho Weng Kin: Operational domain theory and topology of a sequential programming language.

3:40 - 4:00 Coffee Break

Session 16: Wednesday 29th June 4:00pm to 5:40pm

Session Chair: Andrei Bulatov

4:00-4:25 Victor Dalmau: Generalized majority-minority operations are tractable.

4:25-4:50 Emanuel Kieronski and Martin Otto: Small substructures and decidability issues for first-order logic with two variables.

4:50-5:15 Albert Atserias: Definability on a random 3-CNF formula.

5:15-5:40 Benjamin Rossman: Existential positive types and preservation under homomorphisms.

END of CONFERENCE