

COMPUTER SCIENCE LOGIC 2005, 22-25 AUGUST, OXFORD

Monday 22 August 2005

08:30 **Registration**, foyer of Dennis Sciama Lecture Theatre, Denys Wilkinson Building

Chair: *Luke Ong*

Semantics and Logics

09:00 *Ulrich Berger*. An Abstract Strong Normalization Theorem (*Invited Lecture*)

10:00 *Matthew Collinson, David Pym and Edmund Robinson*. On Bunched Polymorphism

10:30 **Coffee**

Chair: *Ian Stark*

11:00 *Tom Murphy, Robert Harper and Karl Crary*. Distributed Control Flow with Classical Modal Logic

11:30 *Jiri Adámek*. A Logic of Coequations

12:00 *Shin-ya Katsumata*. A Semantic Formulation of $\top\top$ -lifting and Logical Predicates for Computational Metalanguage

12:30 **Lunch**

Chair: *Ulrich Berger*

Type Theory and Lambda Calculus I

14:00 *Paula Severi and Fer-Jan de Vries*. Order Structures on Böhm-like Models

14:30 *Colin Stirling*. Higher-order Matching and Games

Constructive Reasoning and Computational Mathematics I

15:00 *Branimir Lambov*. Complexity and Intensionality in a Type-1 Framework for Computable Analysis

15:30 **Tea**

Chair: *Martin Hyland*

16:00 *Vasco Brattka and Matthias Schröder*. Computing with Sequences, Weak Topologies and the Axiom of Choice

Linear Logic and Ludics I

16:30 *Pierre-Louis Curien and Claudia Faggian*. L-nets, Strategies and Proof-nets

17:00 *Jean-Marc Andreoli, Gabriele Pulcini, and Paul Ruet*. Permutative Logic

17:30 *Kaustuv Chaudhuri and Frank Pfenning*. Focusing the Inverse Method for Linear Logic

Evening Event

19:00 **EACSL Annual General Meeting**, Fitzjames Room 1, Merton College

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Tuesday 23 August 2005

Chair: *Julian Bradfield*

09:00 *Matthias Baaz*. Proof Theory of Analogical Reasoning and Juridical Logic (*Invited Lecture*)

Linear Logic and Ludics II

10:00 *Esfandiar Haghighverdi and Philip J. Scott*. Towards a Typed Geometry of Interaction

10:30 **Coffee**

Chair: *Bakhadyr Khoussainov*

Constraints

11:00 *Hubie Chen and Victor Dalmau*. From Pebble Games to Tractability: An Ambidextrous Consistency Algorithm for Quantified Constraint Satisfaction

11:30 *Ashish Tiwari*. An Algebraic Approach for the Unsatisfiability of Nonlinear Constraints

12:00 **Lunch**

13:15 **Excursion to Bletchley Park**. The coaches will leave from the junction of Keble Road and Parks Road at 13:15.

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Wednesday 24 August 2005

Chair: *Janos Makowsky*

Finite Models, Decidability and Complexity

09:00 *Maarten Marx*. XML Navigation and Tarski's Relation Algebras (*Invited Lecture*)

10:00 *Marcin Mostowski and Konrad Zdanowski*. Coprimality in Finite Models

10:30 **Coffee**

Chair: *Etienne Grandjean*

11:00 *Michael Benedikt and Luc Segoufin*. Towards a Characterization of Order-Invariant Queries over Tame Structures

11:30 *Bakhadyr Khoussainov and Sasha Rubin*. Decidability of Term Algebras Extending Partial Algebras

12:00 *Emanuel Kieroński*. Results on the Guarded Fragment with Equivalence or Transitive Relations

12:30 **Lunch**

Chair: *Neil Immerman*

14:00 *Bruno Courcelle and Christian Delhommé*. The Modular Decomposition of Countable Graphs: Constructions in Monadic Second-Order Logic

14:30 *Balder ten Cate and Massimiliano Franceschet*. On the Complexity of Hybrid Logics with Binders

15:00 *Julian Bradfield and Stephan Kreutzer*. The Complexity of Independence-Friendly Fixpoint Logic

15:30 **Tea**

Chair: *Bruno Courcelle*

16:00 *Antonina Kolokolova*. Closure properties of weak systems of bounded arithmetic

2005 Ackermann Award Presentation

16:30 *Johann Makowsky*, EACSL President and Jury Chair

16:45 *Mikołaj Bojańczyk*. Decidable Properties of Tree Languages

17:15 *Konstantin Korovin*. Knuth-Bendix orders in automated deduction and term rewriting

Nathan Segerlind. New Separations in Propositional Proof Complexity

Evening Event

18:30 **Guided Tour of Merton College**, assemble just inside Front Quad, next to the Porter's Lodge

19:30 **Conference Banquet**, Merton College

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Thursday 25 August 2005

Chair: *Damian Niwiński*

Verification and Model Checking

09:00 *Anatol Slissenko*. Verification in Predicate Logic with Time: Algorithmic Questions (*Invited Lecture*)

10:00 *Julian Bradfield, Jacques Duparc and Sandra Quickert*. Transfinite Extension of the Mu-Calculus

10:30 **Coffee**

Chair: *Colin Stirling*

11:00 *Witold Charatonik, Lilia Georgieva and Patrick Maier*. Bounded Model Checking of Pointer Programs

11:30 *Carsten Lutz*. PDL with Intersection and Converse is Decidable

12:00 *Filip Murlak*. On Deciding Topological Classes of Deterministic Tree Languages

12:30 **Lunch**

Chair: *David Pym*

Type Theory and Lambda Calculus II

14:00 *Frédéric Blanqui*. Decidability of Type-checking in the Calculus of Algebraic Constructions with Size Annotations

14:30 *Bruno Barras and Benjamin Grégoire*. On the role of type decorations in the Calculus of Inductive Constructions

Constructive Reasoning and Computational Mathematics II

15:00 *Mircea-Dan Hernest*. Light Functional Interpretation - an optimization of Gödel's technique towards the extraction of (more) efficient programs from (classical) proofs

15:30 **Tea**

Chair: *Arnaud Durand*

16:00 *Michael Soltys*. Feasible Proofs of Matrix Properties with Csanky's Algorithm

Implicit Computational Complexity and Rewriting

16:30 *Steven Perron*. A Propositional Proof System for Log Space

17:00 *Carsten Schürmann and Jatin Shah*. Identifying polynomial-time recursive functions

17:30 *Guillem Godoy and Ashish Tiwari*. Confluence of Shallow Right-Linear Rewrite Systems

18:00 **End of Conference**
