

# Monday 16 September

9:00 Invited talk (chair: Tom Schrijvers)

Ilya Sergey: *Monadic Abstract Interpreters*

10:00 Technical Session (chair: Tom Schrijvers)

*A Declarative and Bidirectional Model Transformation Approach Based on Graph Co-spans*

Yngve Lamo, Florian Mantz, Adrian Rutle, Juan De Lara

10:30 Coffee Break

11:00 Technical Session (chair: Olivier Danvy)

*Coq: The world's best macro assembler?*

Nick Benton, Andrew Kennedy, Jonas Braband Jensen, Pierre-Evariste Dagand

*An Operational Foundation for the Tactic Language of Coq*

Wojciech Jedynek, Malgorzata Biernacka, Dariusz Biernacki

*Proofs You Can Believe In: Proving Equivalences Between Prolog Semantics in Coq*

Jael Kriener, Andy King, Sandrine Blazy

12:30 Lunch

14:00 Technical Session (chair: Pablo Nogueira)

*A Semantics for Weakly Encapsulated Search in Functional Logic Programs*

Jan Christiansen, Michael Hanus, Fabian Reck, Daniel Seidel

*Are Needed Redexes Really Needed?*

Sergio Antoy, Andy Jost

*A Parameterized Graph Transformation Calculus for Finite Graphs with Monadic Branches*

Kazuyuki Asada, Soichiro Hidaka, Hiroyuki Kato, Zhenjiang Hu, Keisuke Nakano

15:30 Coffee Break

16:00 Technical Session (chair: Sergio Antoy)

*Deriving the Full-Reducing Krivine Machine from the Small-Step Operational Semantics of Normal Order*

Álvaro García-Pérez, Pablo Nogueira, Juan José Moreno-Navarro

*A Synthetic Operational Account of Call-by-Need Evaluation*

Olivier Danvy, Ian Zerny

*A Logical Correspondence between Natural Semantics and Abstract Machines*

Robert Simmons, Ian Zerny

## Tuesday 17 September

9:00 Technical Session (chair: Stefan Holdermans)

*Engineering Definitional Interpreters*

Jan Midtgaard, Norman Ramsey, Bradford Larsen

*Extensible Sparse Functional Arrays with Circuit Parallelism*

John T. O'Donnell

*Dependent Types for Enforcement of Information Flow, Erasure Policies in Heterogeneous Data Structures*

Gordon Stewart, Anindya Banerjee, Aleksandar Nanevski

10:30 Coffee Break

11:00 Technical Session (chair: Fred Mesnard)

*Reasoning About Higher-Order Relational Specifications*

Yuting Wang, Kaustuv Chaudhuri, Andrew Gacek, Gopalan Nadathur

*Time Refinement in a Functional Synchronous Language*

Louis Mandel, Cédric Pasteur, Marc Pouzet

*Unifying the Knuth-Bendix, Recursive Path and Polynomial Orders*

Akihisa Yamada, Keiichirou Kusakari, Toshiki Sakabe

12:30 Lunch

14:00 Technical Session (chair: John O'Donnell)

*Theory Propagation and Rational Trees*

Ed Robbins, Andy King, Jacob Howe

*Decentralized Execution of Constraint Handling Rules for Ensembles*

Edmund Soon Lee Lam, Iliano Cervesato

*Finite Type Extensions in Constraint Programming*

Rafael Caballero, Peter Stuckey, Antonio Tenorio Fornés

15:30 Coffee Break

16:00 Technical Session (chair: Meng Wang)

*Eventual Linear Ranking Functions*

Roberto Bagnara, Fred Mesnard

*Detecting decidable classes of finitely ground logic programs with function symbols*

Marco Calautti, Sergio Greco, Irina Trubitsyna

*Shape Analysis in a Functional Language by Using Regular Languages*

Manuel Montenegro, Ricardo Peña, Clara Segura

## Wednesday 18 September

9:00 Invited talk (chair: Michael Hanus)

Peter Stuckey: *Search is dead – long live proof*

10:00 Technical Session (chair: Michael Hanus)

*Efficient Computation of Program Equivalence for Confluent Concurrent Constraint Programming*

Luis Pino, Filippo Bonchi, Frank Valencia

10:30 Coffee Break

11:00 Technical Session (chair: Clara Segura)

*Random Testing of Purely Functional Abstract Datatypes*

Stefan Holdermans

*Prolog Programming with a Map-Reduce Parallel Construct*

Joana Côrte-Real, Inês Dutra, Ricardo Rocha

*Bidirectionalization for Free with Runtime Recording – Or, a Light-Weight Approach to the View-Update Problem*

Kazutaka Matsuda, Meng Wang

12:30 Lunch

14:00 Excursion and Banquet