

**4th International Workshop on
Applications of the Reed-Müller Expansion in Circuit Design**

(Reed-Müller 99)

University of Victoria

Victoria B.C., Canada

August 20 - 21, 1999

Preliminary Program

Thursday, August 19

1900 – 2100 Reception and Registration – [University of Victoria Faculty Club](#)

Friday, August 20

0800 – 0830 Registration – [Haro Room, Cadboro Commons, University of Victoria](#)

(please note that all technical sessions will be in the Haro Room)

0830 – 0845 Opening Remarks

0845 – 1015 Session I

Two Families of Canonical And/Exor Forms that Include Exact Minimum ESOPs and All Canonical AND/EXOR Families, Respectively, *Malgorzata Chrzanowska-Jeske and Marek Perkowski*

An EXOR Based Expand, *Paul Metzgen and Jonathan Saul*

A Fast Algorithm for Three-Level AND-OR-XOR Minimization, *Elena, Dubrova, Michael Miller and Jon Muzio*

1015 – 1045 Nutrition Break

1045 – 1215 Session II

A Heuristic Decomposition Algorithm for AND-OR-EXOR Three-Level Minimization of Boolean Functions, *Abusaleh Jabir and Jonathan Saul*

Rectangle Covering Factorization of ESOPs into Scan-Based Levelized Circuits with Universal Test Set, *Ugur Kalay, Marek Perkowski, Douglas Hall and Shah Amran Shahjahan*

Term Trees in Application to an Effective and Efficient ATPG for AND-EXOR and AND-OR Circuits, *Lech Jówiak, Aleksander Lusarczyk and Marek Perkowski*

1215 – 1330 Lunch

1330 – 1500 Session III

Generalized Discrete Hartley Transforms, *Claudio Moraga*

Probabilistic Equivalence Checking Using Partial BDDs and Haar Spectral Coefficients, *Mitch Thornton and Rolf Drechsler*

Fixed Spectral Coefficients for Detecting Multiple Stuck-at Faults in Combinational Circuits, *Biplab Sikdar, Debesh K. Das and Bhargab B. Bhattacharya*

1500 – 1530 Nutrition Break

1530 – 1700 Session IV

Some Remarks on Basic Characteristics of Decision Diagrams, *Radomir Stankovic*

Arithmetic Ternary Decision Diagrams and Their Applications, *Tsutomu Sasao*

Complexity of OBDD Construction, *Jawahar Jain, Ingo Wegener and M. Fujita*

1700 – Excursion and Dinner (casual attire recommended)

Saturday, August 21

0830 – 1000 Session V

Simple Theory of Decision Diagrams for Representation of Discrete Functions, *Radomir Stankovic*

Algorithmic Considerations for \oplus -ROBDD Reordering, *Haraki Sack and Christoph Meinel*

The Use of Autocorrelation Coefficients for Variable Ordering for ROBDDs, *Jackie Rice, Micaela Serra and Jon Muzio*

1000 – 1030 Nutrition Break

1030 – 1230 Session VI

Synthesis of Lattice Diagrams, *Per Lindgren, Rolf Drechsler and Bernd Becker*

Theoretical Properties of Structurally Symmetric BDDs, *Luca Macchiarulo and Malgorzata Marek-Sandowska*

Finding Maximal Symmetry Groups of Variables in Incompletely-Specified Boolean Functions, *Chih-Wei Chang and Malgorzata Marek-Sandowska*

Efficient Manipulation Algorithms for Linearly Transformed BDDs, *Wolfgang Günther and Rolf Drechsler*

1230 – 1330 Lunch

1330 – 1500 Session VII

Bi-Decomposition of Discrete Function Sets, *Bernd Steinbach, Christian Lang and Marek Perkowski*

Exact Minimization of Fixed Polarity Reed-Muller Expressions for Incompletely-Specified Functions, *Debatosh Debnath and Tsutomu Sasao*

TRACE: A Visual Software System to Explore Properties of Reed-Muller Movement Functions, *Alan Mishchenko and Marek Perkowski*

1500 – 1530 Nutrition Break

1530 – 1630 Plenary Session and Closing Remarks