Schedule : Spring 2018

This is the tentative schedule of Mélange group for the Spring 2018 semester.

Meet time & Place : Wednesdays 10:00 AM - 11:00 AM @ CSB 305

WEEK	DATE	TOPIC	PRESENTER
0	01/17/2018	SPX proposal : PARRIC	Sanjay Rajopadhye
1	01/24/2018	Execution time models	Fabrice Rastello
2	01/31/2018	-	Sanjay Rajopadhye
3	02/07/2018		Prerana Ghalsasi
4	02/14/2018	TBD	Swetha Varadarajan
5	02/21/2018	TBD	
6	02/28/2018	TBD	
7	03/07/2018	TBD	
8	03/14/2018	SPRING BREAK	
9	03/21/2018	TBD	
10	03/28/2018	TBD	
11	04/04/2018	TBD	
12	04/11/2018	TBD	
13	04/18/2018	TBD	
14	04/25/2018	TBD	
15	05/02/2018	TBD	
16	05/09/2018	TBD	

Reading Pool

Publications

2017

- Y. H. Chen, T. Krishna, J. S. Emer, V. Sze, Eyeriss: An Energy-Efficient Reconfigurable Accelerator for Deep Convolutional Neural Networks, 2017
- William F. Ogilvie, Pavlos Petoumenos, Zheng Wang, Hugh Leather, Minimizing the Cost of Iterative Compilation with Active Learning, 2017
- Chris Cummins, Pavlos Petoumenos, Zheng Wang, Hugh Leather, Synthesizing benchmarks for predictive modeling, 2017
- Johannes Doerfert, Tobias Grosser, Sebastian Hack, Optimistic Loop Optimization, 2017

2016

- Wlodzimierz Bielecki, Marek Pa lkowski, Tiling Arbitrarily Nested Loops by Means of the

Transitive, 2016

- Wenlei Bao, Changwan Hong, Sudheer Chunduri, Sriram Krishnamoorthy, Louis-Noel Pouchet, Fabrice Rastello, P. Sadayappan, Static and Dynamic Frequency Scaling on Multicore CPUs, 2016
- Daniel J. Milroy, Allison H. Baker, Dorit M. Hammerling, John M. Dennis, Sheri A. Mickelson, Elizabeth R. Jessup, Towards Characterizing the Variability of Statistically Consistent Community Earth System Model Simulations, 2016
- Audrunas Gruslys, R{ '{e}}mi Munos, Ivo Danihelka, Marc Lanctot, Alex Graves, Memory-Efficient Backpropagation Through Time, 2016
- U. Bondhugula, V. Bandishti, I. Pananilath, Diamond Tiling: Tiling Techniques to Maximize Parallelism for Stencil Computations, 2016

2015

- T. Nowatzki, J. Menon, C. H. Ho, K. Sankaralingam, Architectural Simulators Considered Harmful, 2015
- J. D. Garvey, T. S. Abdelrahman, Automatic Performance Tuning of Stencil Computations on GPUs, 2015
- Eric Chung Kalin Ovtcharov, Accelerating Deep Convolutional Neural Networks Using Specialized Hardware, 2015
- Protonu Basu, Mary Hall, Samuel Williams, Brian Van Straalen, Leonid Oliker, Phillip Colella, Compiler-Directed Transformation for Higher-Order Stencils, 2015

2014

- Andrew Putnam, Adrian M. Caulfield, Eric S. Chung, Derek Chiou, Kypros Constantinides, John Demme, Hadi Esmaeilzadeh, Jeremy Fowers, Gopi Prashanth Gopal, Jan Gray, Michael Haselman, Scott Hauck, Stephen Heil, Amir Hormati, Joo-Young Kim, Sitaram Lanka, James Larus, Eric Peterson, Simon Pope, Aaron Smith, Jason Thong, Phillip Yi Xiao, Doug Burger, A Reconfigurable Fabric for Accelerating Large-scale Datacenter Services, 2014
- Sharan Chetlur, Cliff Woolley, Philippe Vandermersch, Jonathan Cohen, John Tran, Bryan Catanzaro, Evan Shelhamer, cuDNN: Efficient Primitives for Deep Learning, 2014

2013

- Martin Kong, Richard Veras, Kevin Stock, Franz Franchetti, Louis-No “{e}l Pouchet, P. Sadayappan, When Polyhedral Transformations Meet SIMD Code Generation, 2013
- Louis-Noel Pouchet, Peng Zhang, P. Sadayappan, Jason Cong, Polyhedral-based Data Reuse Optimization for Configurable Computing, 2013

2012

- Sven Verdoolaege, Gerda Janssens, Maurice Bruynooghe, Equivalence Checking of Static Affine Programs Using Widening to Handle Recurrences, 2012
- Vinayaka Bandishti, Irshad Pananilath, Uday Bondhugula, Tiling Stencil Computations to Maximize Parallelism, 2012

2011

- Henry Wong, Vaughn Betz, Jonathan Rose, Comparing FPGA vs. Custom Cmos and the Impact on Processor Microarchitecture, 2011

2010

- M.-W. Benabderrahmane, L.-N. Pouchet, Cohen A., C. Bastoul, The Polyhedral Model Is More Widely Applicable Than You Think, 2010

2008

- Andrew R. Putnam, Dave Bennett, Eric Dellinger, Jeff Mason, Prasanna Sundararajan, CHiMPS: A High-level Compilation Flow for Hybrid CPU-FPGA Architectures, 2008
- Vasily Volkov, James W. Demmel, Benchmarking GPUs to Tune Dense Linear Algebra, 2008

2007

- Milind Kulkarni, Keshav Pingali, Bruce Walter, Ganesh Ramanarayanan, Kavita Bala, L. Paul Chew, Optimistic Parallelism Requires Abstractions, 2007

2006

- Paul Feautrier, Scalable and Structured Scheduling, 2006

2001

- Steven J. Deitz, Bradford L. Chamberlain, Lawrence Snyder, Eliminating Redundancies in Sum-of-product Array Computations, 2001

2000

- Martin Griebl, Paul Feautrier, Christian Lengauer, Index Set Splitting, 2000

1997

- J-F. Collard, D. Barthou, P. Feautrier, Fuzzy Array Data Flow Analysis, 1997

1994

- J. Cong, Yuzheng Ding, FlowMap: an optimal technology mapping algorithm for delay optimization in lookup-table based FPGA designs, 1994

1992

- Paul Feautrier, Some Efficient Solutions to the Affine Scheduling Problem {Part II}. Multidimensional Time, 1992
- Paul Feautrier, Some Efficient Solutions to the Affine Scheduling Problem {Part I}. One-dimensional Time, 1992

1991

- P. Feautrier, Dataflow analysis of array and scalar references, 1991

1989

- Patrice Quinton, Vincent van Dongen, The mapping of linear recurrence equations on regular arrays, 1989
- D. Baxter, R. Mirchandaney, J. H. Saltz, Run-time Parallelization and Scheduling of Loops, 1989

1988

- F. Irigoin, R. Triolet, Supernode Partitioning, 1988

1986

- Sanjay V. Rajopadhye, S. Purushothaman, Richard Fujimoto, On Synthesizing Systolic Arrays from Recurrence Equations with Linear Dependencies, 1986