

PCO'12 Final Program

Friday 25 May 2012

8:50 – 9:00 Workshop Opening

- Didier El Baz, Workshop Chair

9:00 – 10:00 Session I: Combinatorial Scientific Computing

- Scalable Hybrid Implementation of Graph Coloring using MPI and OpenMP
Ahmet Erdem Sariyüce; Erik Saule; Ümit V. Catalyürek
- Two Edge Coloring Algorithms using a Simple Matching Discovery Automata
J. Paul Daigle; Sushil K. Prasad

10:00 – 10 :30 Break

10:30 – 11:30 Session II: Parallel Optimization Algorithms

- A Parallel BP Algorithm for the Discretizable Distance Geometry Problem
Warley Gramacho; Antonio Mucherino; Carlile Lavor; Nelson Maculan
- GPU Implementation of the Branch and Bound Method for Knapsack Problems
Mohamed Lalami; Didier J.F. El Baz

11:30 – 1:00 Break and Lunch (lunch provided by the conference starts at 12:00)

1:00 –1:30 Invited Talk

- Scalable Integer Factorization for Public Key Cryptosystems
Laurence T. Yang, St Francis Xavier University, Canada

1:30 - 3:00 Session III: Parallel Metaheuristics

- Towards the Design of Systolic Genetic Search
Martín Pedemonte; Enrique Alba; Francisco Luna
- A Parallel Simulated Annealing Approach for the Mapping of Large Process Networks
François Galea; Renaud Sirdey
- Parallel Local Search for the Costas Array Problem
Daniel Diaz; Florian Richoux; Philippe Codognet; Yves Caniou; Salvador Abreu

3:00 – 3:30 Break

3:30 – 5:00 Session IV: Issues in Optimization of Parallel or Distributed Systems

- Optimal Partitioning of a Multicore Server Processor

Keqin Li

- Reducing Cache Pollution of Threaded Prefetching by Controlling Prefetch Distance

Yan Huang; Zhi-min Gu; Jie Tang; Min Cai; Jianxun Zhang; Nhighan Zheng

- A Class of an Almost-Optimal Size-Independent Parallel Prefix Circuits

Hatem M El-Boghdadi