Programme for Workshop on Classical and Quantum optimization

Day 1, 20.08.2014
Morning chair: Helmut Katzgraber
Afternoon chair: Layla Hormozi

Time	**Title** **Speaker**
9:00	Coffee & registration
9:55	Welcome & introduction
10:00	Alan Middleton (Syracuse) *What can we learn from glassy problems with polynomial time solutions?*
10:45	Alexander Hartmann (Oldenburg) *Vertex-cover problem: algorithms and phase transitions*
11:30	Jonathan Machta (UMass Amherst) *Population annealing: An effective algorithm for rough free energy landscapes*
12:15	Lunch
14:00	Alex Selby *Methods for classical optimisation and simulation of frustrated Ising models*
14:45	Andrew Lucas (Harvard) *NP-hard combinatorial problems as Ising spin glasses*
15:30	Coffee break
16:00	Stefan Boettcher (Emory) *Extremal Optimization Heuristic for the Quadratic Unconstrained Binary Optimization (QUBO) Problem*
16:45	Greg Tallant (Lockheed Martin) *TBA*

Day 2, 21.08.2014
Morning chair: A. Jamie Kerman
Afternoon chair: William D. Oliver

Time	**Title** **Speaker**
9:00	Giuseppe Santoro (SISSA) *Quantum Annealing: old work and recent thoughts*
9:45	Sergio Boixo (Google) *TBA*
10:30	Coffee break
11:00	Karl Roenigk, Ph.D. (IARPA CSQ Program Manager) *Qubits for Robust, Fast Quantum Annealing: Extending Advances from the IARPA CSQ Program*
11:45	Lunch
14:00	Bryan Jacobs *Quantum Annealing: Near Term Prospects*
14:45	Itay Hen (ISI) *Quantum versus thermal annealing: seeking a fair comparison*
15:30	Coffee break
16:00	Vadim Smelyanskiy (NASA) *Bottlenecks of quantum annealing*
16:45	Martin Weigel (Coventry) *Some exact and heuristic optimisation algorithms for spin glasses*
20.00	Workshop dinner

Day 3, 22.08.2014
Morning chair: Firas Hamze
Afternoon chair: Sergei V. Isakov

Time	**Title** **Speaker**
9:00	Ilia Zintchenko (ETH) *Hierarchical search*
9:45	Ruben Andrist (Santa Fe) *TBA*
10:30	Coffee break
11:00	Bettina Heim (ETH) *Classical vs. quantum annealing - A numerical study on Ising spin glasses*
11:45	Lunch
13:30	Robert Lucas (ISI) *TBA*
14:15	Discussion
16:00	Farewell