

Centre for Mathematical Imaging and Vision

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Institute of Computational and Theoretical Studies Joint Distinguished Lecture

Parallel Randomized Algorithms in Optimization

Speaker	:	Professor Stephen Wright University of Wisconsin-Madison SIAM Fellow
Date	:	7 June 2013 (Friday)
Time	:	4:30 p.m. – 5:30 p.m.
Venue	:	Room 509, Lui Ming Choi Centre Ho Sin Hang Campus Hong Kong Baptist University

Abstract:

Modern optimization algorithms are making use more and more of randomization as a means of reducing the amount of information needed to perform each step of the algorithm, while eventually accessing enough information about the problem to identify a good approximate solution. Stochastic gradient methods, which obtain gradient estimates from small samples of a full data set, are one example of such methods. Related techniques include the Kaczmarz method for linear algebraic systems and coordinate descent methods in optimization. In this talk, we focus on parallel versions of these methods that are suited to asynchronous implementation on multicore processors. Convergence theory for these methods is described, along with some computational experience.

- All interested are welcome –

For further information, please visit <u>http://www.icts.hkbu.edu.hk/#Seminars</u>, or call 3411-2787.