

Computer Science Seminar Series, 2009

National Capital Region

Algorithms and Complexity: Recent Development

Speaker: Prof. Li Chen

Department of Computer Science and Information Technology
University of the District of Columbia

Friday, March 6, 2009
1:00PM- 2:00PM, NVC 322

Abstract

Algorithms and Computational Complexity are fundamental research areas in Computer Science. They are essential to other disciplinary areas of computer science and scientific computing. In this seminar, we will first review some historical milestones and then introduce some basic techniques. At the end, we will discuss the new developments of algorithms and complexity. This seminar will focus on the problems and results in:

- Quantum Computing
- Bio-computing
- Networking/Wireless Computation problems
- Approximation, Randomness, PCP theory and Classification Algorithms
- Smoothed algorithm analysis
- Cryptography and elliptical curve cryptography

Biography

Dr. Li Chen is an associate professor in computer science at the University of the District of Columbia. He is currently working on problems in image segmentation algorithms, complexity analysis of algebraic groups, and the relationship between finite elements and gradually varied fitting. Li Chen received his BS, MS, and Ph.D. all in CS from Wuhan University(1982), Utah State University(1995), and University of Bedfordshire (Luton, UK, 2001), respectively. His work includes: 1) The best algorithm for the check matrix of the well-known error-correction Hsiao codes; 2) Solving algorithms for fuzzy relation equation; 3) The lambda-connected search algorithm for image segmentation, a dual-technique to threshold segmentation, the most popular segmentation method. www.udc.edu/prof/chen.