

Keynote Talk

Challenges and Opportunities in the Post Single-Thread-Processor Era

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Abstract

The age of the single thread juggernaut has ended, due to a variety of factors. Multi-core processors are coming on strong, and scaling is being stressed more than ever. This presents a number of architectural, hardware and software challenges. This talk will reflect on these challenges from Cray's perspective in the high performance computing industry.

Bio

Steve Scott is the Chief Technology Officer at Cray Inc., where he has been since receiving his PhD in computer architecture from the University of Wisconsin at Madison in 1992. Steve was the Chief Architect of the Cray X1 supercomputer and BlackWidow follow-on system, was one of the principle architects of the Cray T3E, and is the Principle Investigator for the Cray DARPA High Productivity Computing Systems program. Steve holds fifteen US patents, and has served on numerous program committees. He was the 2005 recipient of the ACM Maurice Wilkes Award, and the IEEE Seymour Cray Computer Engineering Award.