



中央研究院 資訊科學研究所
Institute of Information Science, Academia Sinica

Distinguished Lecture Series

Efficiency and Parallelism: The Challenges of Future Computing



Wednesday, February 19th, 2014 10:00am
Auditorium 106 at New IIS Building

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Abstract

The computing demands of mobile devices, data centers, and HPC are increasing exponentially. At the same time, the end of Dennard scaling has slowed the rate of improvement and made all computing power limited, so that performance is determined by energy efficiency. With improvements in semiconductor process technology offering little increase in efficiency, innovations in architecture and circuits are required to maintain the expected performance scaling. The large scale parallelism and deep storage hierarchy of future machines poses programming challenges. This talk will discuss these challenges of efficiency and parallelism in more detail and introduce some of the technologies being developed to address them

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