

ASPLOS 2017

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中国西安

22nd International Conference on
Architectural Support for Programming
Languages and Operating Systems

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ASPLOS is the premier forum for multidisciplinary systems research spanning computer architecture and hardware, programming languages and compilers, operating systems and networking, as well as applications and user interfaces. The 2017 conference will be held in Xi'an, China. Xi'an is a modern city with 7000 years history, and was the capital of China for 1100 years, having held the position under several of the most important dynasties in Chinese history, including Zhou, Qin, Han, Sui, and Tang. Xi'an is the starting point of the Silk Road and home to the Terracotta Army of Emperor Qin Shi Huang.

Like its predecessors, ASPLOS 2017 invites papers on ground-breaking research at the intersection of at least two ASPLOS disciplines: architecture, programming languages, operating systems, and related areas. Non-traditional topics are especially encouraged. The importance of cross-cutting research continues to grow as we grapple with the end of Dennard scaling, the explosion of big data, scales ranging from ultra-low power wearable devices to exascale parallel and cloud computers, the need for sustainability, and increasingly human-centered applications. ASPLOS embraces systems research that directly targets these new problems in innovative ways. The research may target diverse goals such as performance, energy and thermal efficiency, resiliency, security, and sustainability. The review process will be sensitive to the challenges of multidisciplinary work in emerging areas.

Areas of interest include, but are not limited to:

- emerging platforms at all scales, from embedded to cloud
- heterogeneous multicore architectures and accelerators
- systems for enabling parallelism at an extreme scale
- non-traditional computing systems
- systems that address social, educational, and environmental challenges
- programming models and compilation for existing and emerging platforms
- managing, storing, and computing on big data
- virtualization
- memory and storage technologies and architectures
- power, energy, and thermal management
- security, reliability, and availability
- verification and testing, and their impact on design