The pervasiveness of homogeneous and heterogeneous multi-core and many-core processors, in a large spectrum of systems from embedded and general-purpose to high-end computing systems, poses major challenges to software industry. In general, there is no guarantee that software developed for a particular architecture will be executable (that is functional) on another architecture. Furthermore, ensuring that the software preserves some aspects of performance behavior (such as temporal or energy efficiency) across different such architectures is an open research issue. Therefore, this workshop focuses on novel solutions for functional and performance portability as well as automatic tuning across different architectures.

Following the successful organization of MuCoCoS 2008 (Barcelona, Spain), MuCoCoS 2009 (Fukuoka, Japan), MuCoCoS 2010 (Krakow, Poland), MuCoCoS 2011 (Seoul, Korea), this year MuCoCoS is organized at Salt Lake City, Utah, November 16, 2012, in conjunction with the Supercomputing Conference (SC12). MuCoCoS 2012 focuses on Performance Portability and Tuning.

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