

Speaker:

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Title:

Hardware acceleration and parallel programming models: reconciling the two worlds

Abstract:

Software acceleration through hardware customization is today a well-understood technology with a number of commercial embodiments. However, the most consolidated approach focuses on speeding up sequential code through instruction set extension.

The recent trend toward parallel programming models (OpenCL, OpenMP, ...), propelled by the widespread diffusion of multi-core and many-core processors, calls for a fresh look at hardware acceleration starting from a parallel software specification.