Poster

Parallel Software Framework for Time-Critical many-core Systems
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Abstract

Critical real-time embedded systems demand for more and more computational performance to process big amounts of data from multiple data sources with guaranteed processing response times.
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The rapid evolution of hardware parallel architectures, becoming mainstream in all computing domains, can cope with the performance requirements of critical real-time embedded systems. These new parallel architectures are driving a truly convergence of high-performance computing and critical real-time embedded systems.

The complexity of parallel programming has already been identified as a major CHALLENGE in general purpose computing, and it is now exacerbated in critical real-time embedded domain due to timing guarantees requirements.