ABSTRACT

EXECUTING CONCURRENT THREADS ON A RECONFIGURABLE PROCESSING GRID

A system for processing a plurality of concurrent threads comprising: a reconfigurable processing grid, comprising logical elements and a context storage for storing thread contexts, each thread context for one of a plurality of concurrent threads, each implementing a dataflow graph comprising an identified operation; and a hardware processor configured for configuring the at reconfigurable processing grid for: executing a first thread of the plurality of concurrent threads; and while executing the first thread: storing a runtime context value of the first thread in the context storage; while waiting for completion of the identified operation by identified logical elements, executing the identified operation of a second thread by the identified logical element; and when execution of the identified operation of the first thread completes: retrieving the runtime context value of the first thread from the context storage; and executing another operation of the first thread.

[FIGURE 6]