



## Manticore

Hardware-Accelerated RTL Simulation with Static Bulk-Synchronous Parallelism



Mahyar Emami



Sahand Kashani



Keisuke Kamahori



Sepehr Pourghannad

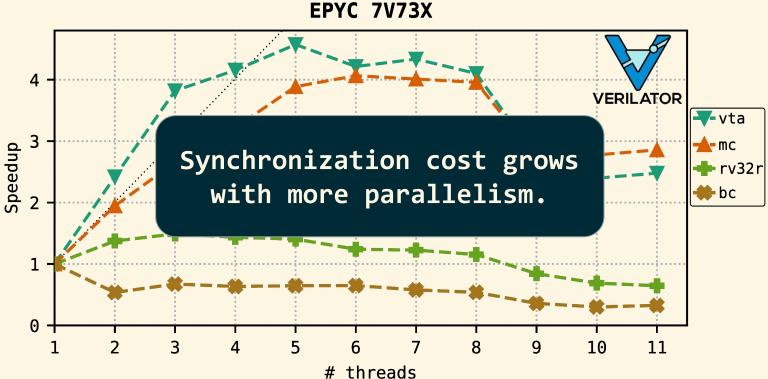


Ritik Raj



James Larus

## Parallel RTL Simulation is Hard!



Mahyar Emami © 2024

## Key Idea: Reduce sync. overhead through static scheduling!

How?

Build a machine, Manticore, that can be statically scheduled!

## Manticore: A Statically Scheduled Manycore

- RTL simulation accelerator
  - 225 message-passing cores
- Chip-wide lockstep execution
  - "Compile-time" sync.

