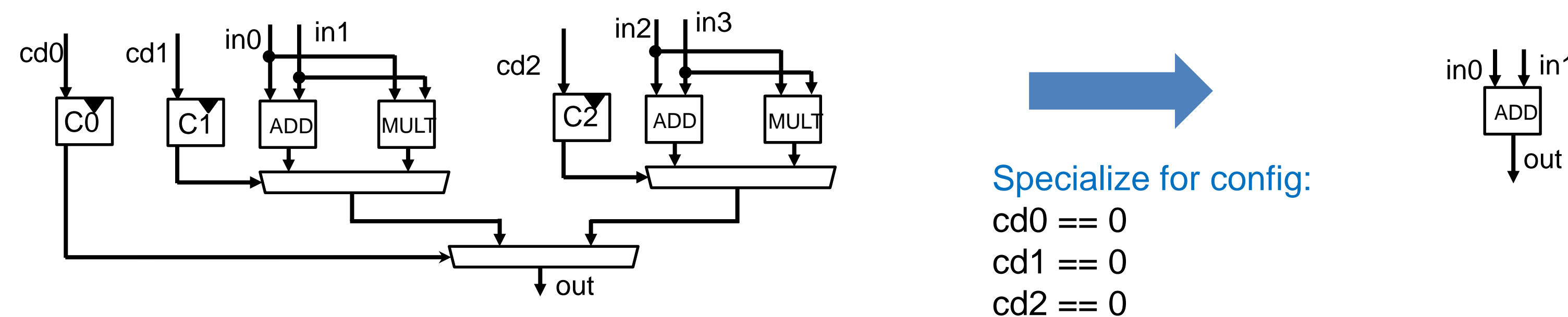


Using Runtime Circuit Specialization Accelerate CGRA Simulations

Dilon Huff, Pat Hanrahan

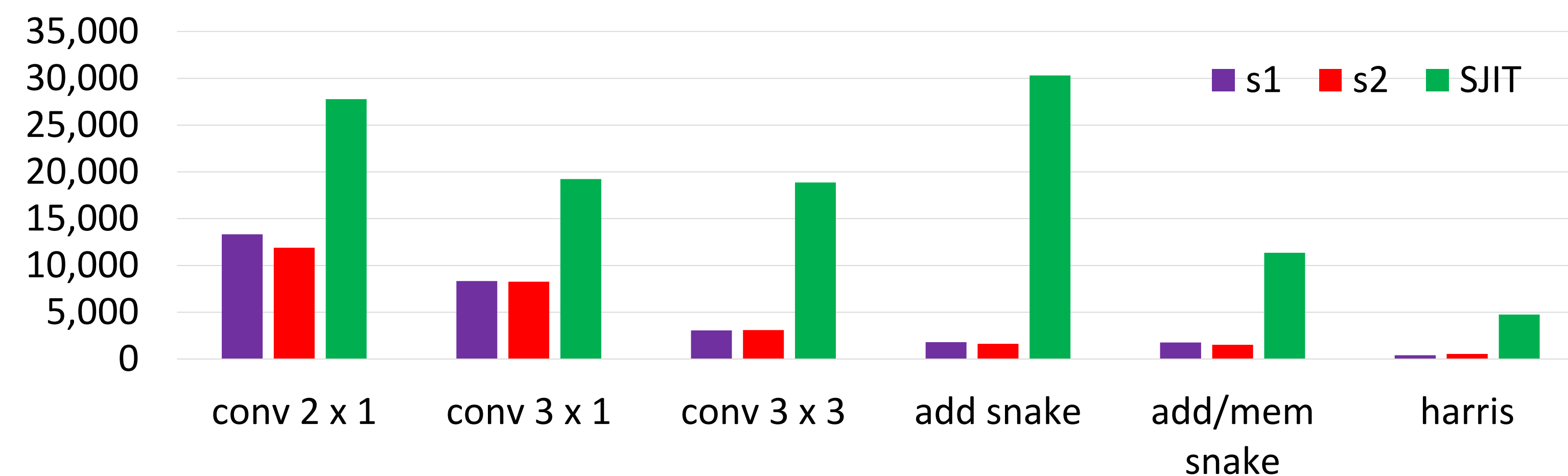
Simulating Reconfigurable Architectures

- Problem: Statically programmable datapaths are not handled well by modern event based simulators
- Solution: Compile specialized version of architecture at runtime after configuration is loaded



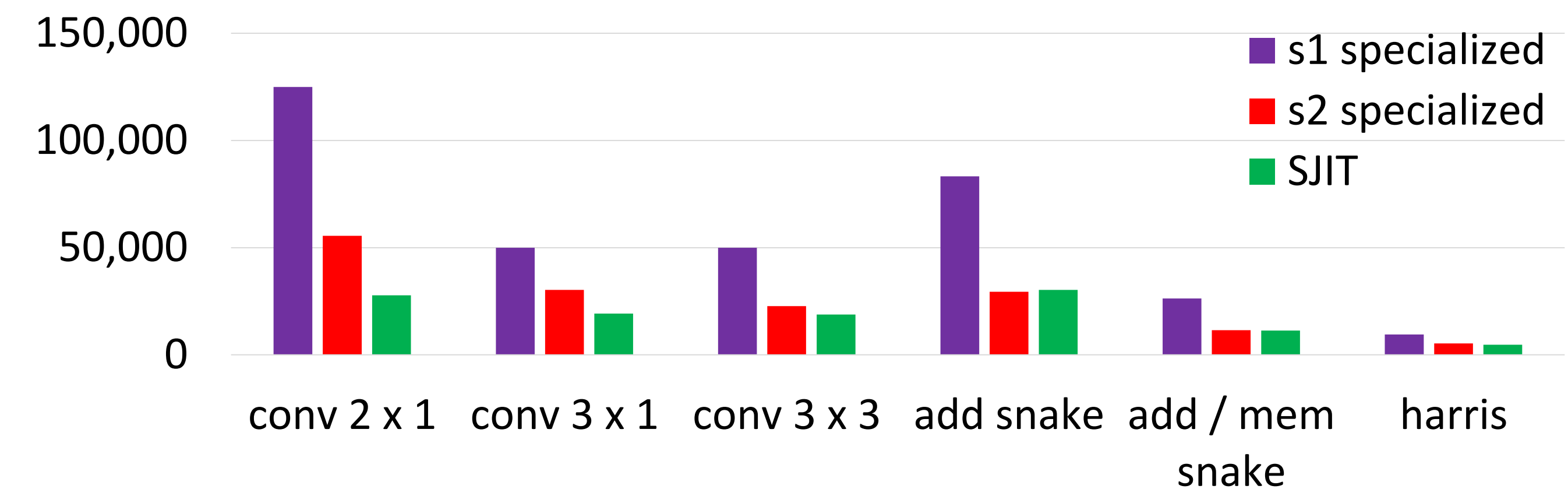
Speed Improvements for a Real CGRA

Simulation Speed (Hz) of s1, s2, and JIT on 16 x 16 CGRA

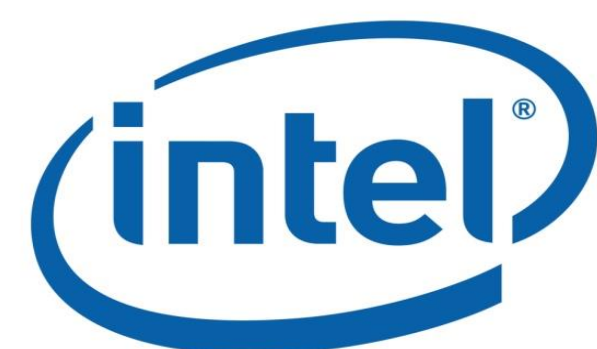
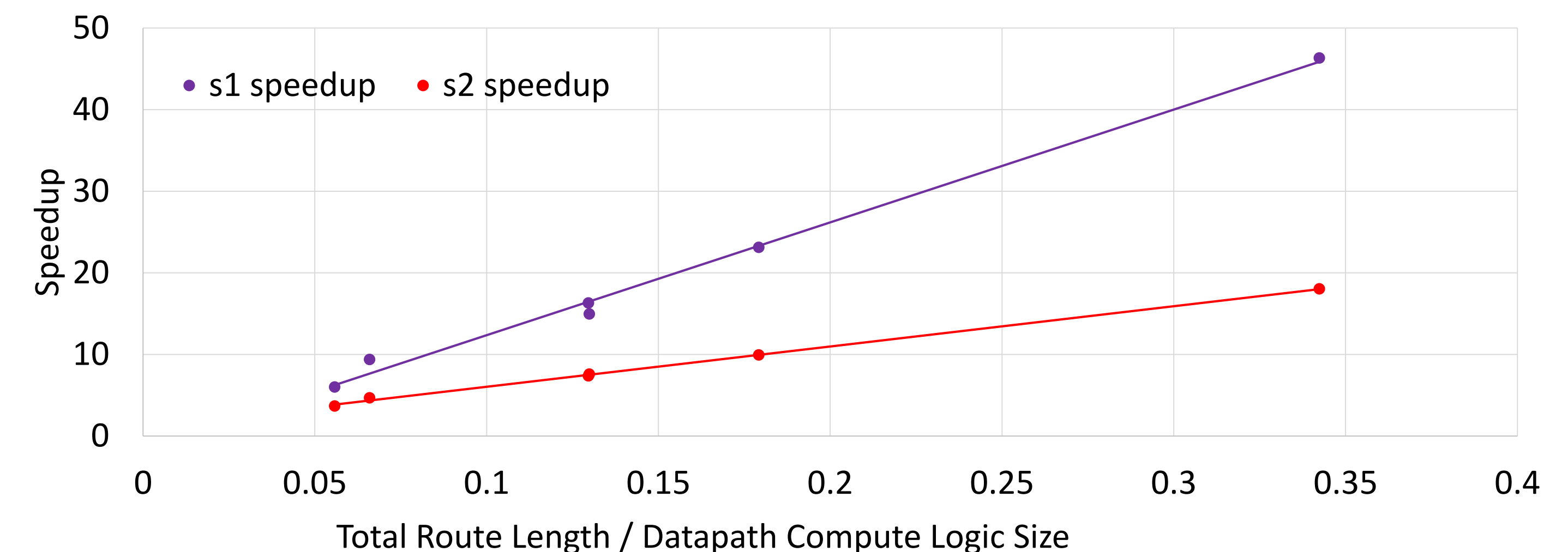
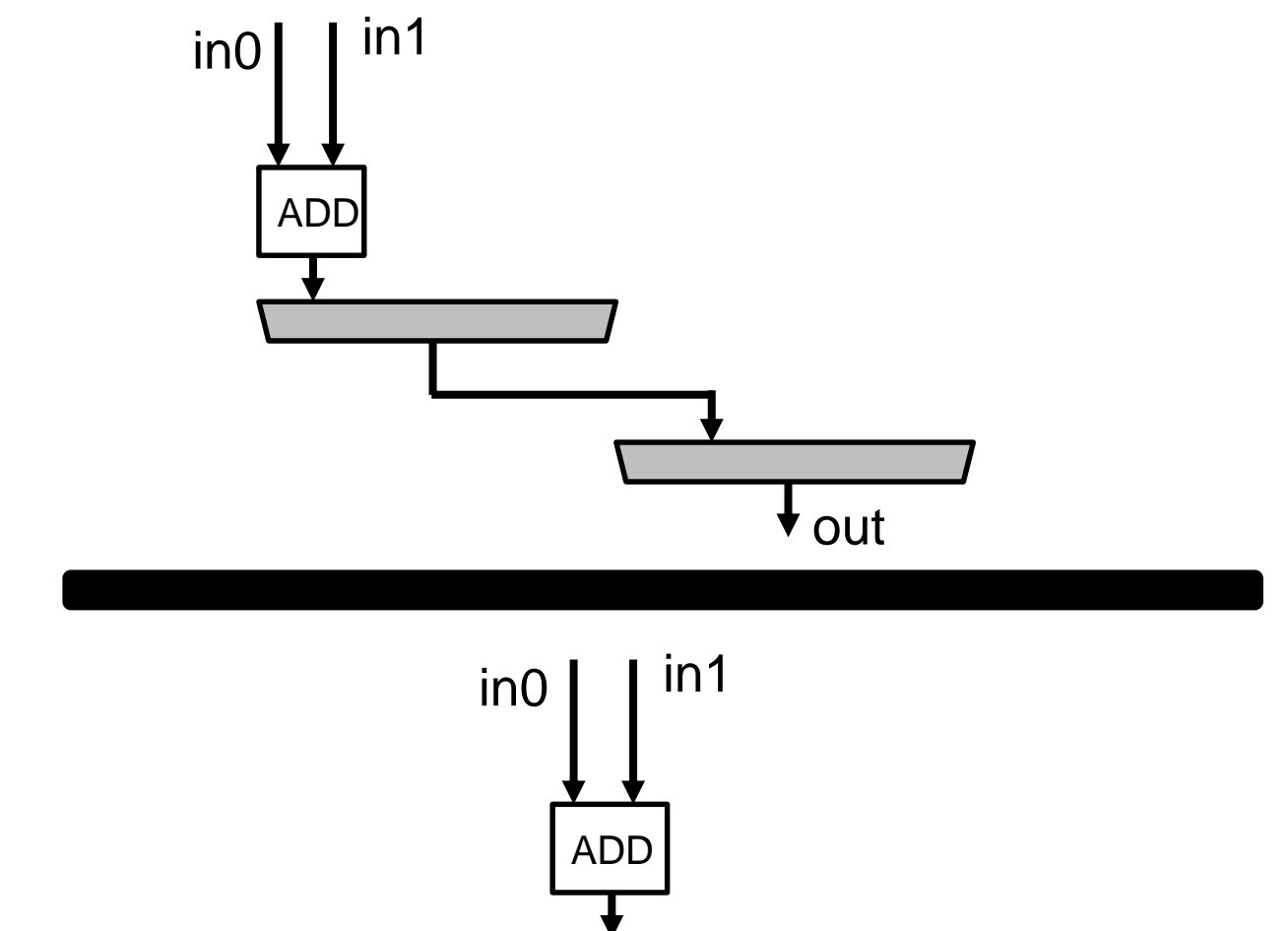


Performance Analysis

Specialized Code Simulation Speeds (Hz) on 16 x 16 CGRA



Speedup =



ISTC Agile