Bachelor/Master’s Thesis
Implementation of Scheduling Algorithms in the HotSniper Simulator

HotSniper is a toolchain for interval thermal simulations of 2D multi-/many-cores in an open system. Using Sniper as a base subsystem, HotSniper allows the simulation and evaluation of different benchmark multithreaded applications. In previous works, HotSniper has been used as the main evaluation tool for several resource management techniques such as task migration, application mapping and Dynamic Voltage and Frequency Scaling (DVFS) for different system configurations and environments. In this thesis topic, we will evaluate a set of scheduling algorithms to analyze their impact on the performance, power, and thermal response of the system.

Main tasks for this thesis
- Implement a set of scheduling algorithms inside of the default simulator scheduler
- Characterize the execution of different benchmark applications under each scheduling algorithm and system configuration.

Skills required for the thesis
- Programming skills (C++, Python)
- Knowledge on resource management is beneficial but not required

Skills acquired within the thesis
- Apply your programming experience to state-of-the-art research
- Work in a research environment.

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