

---

## Group 10

Rhea Sanjay  
Tarushi Taneja

# ChampSim Report

## Approach

First we run the simulation for warm-up instructions wherein we update the number of accesses for each set of the LLC cache using a temp vector. After the warmup for the given cpu is complete we link the hot sets with the cold sets i.e. the most accessed set is linked with the least accessed set and the same follows for the rest of the sets.

handle\_read(), handle\_writeback(), handle\_prefetch() it calls the check\_hit() function to find the way and set from the given packet address. This check\_hit function has been modified to check in the cold sets that are linked to hot sets also.

Similarly in handle\_fill() it finds the victim using llc\_find\_victim(). This function has been modified to find a victim in either the hot or cold set that has been linked to the hot set.

## IPC VALUES

1.	444.namd-120B.champsimtrace.xz	-	0.185502
2.	445.gobmk-17B.champsimtrace.xz	-	0.786958
3.	473.astar-153B.champsimtrace.xz	-	0.654322
4.	605.mcf_s-1536B.champsimtrace.xz	-	0.150616

**AVERAGE IPC VALUE - 0.861729**