Gallatin Afticact Evaluation

Anonymous Author(s)
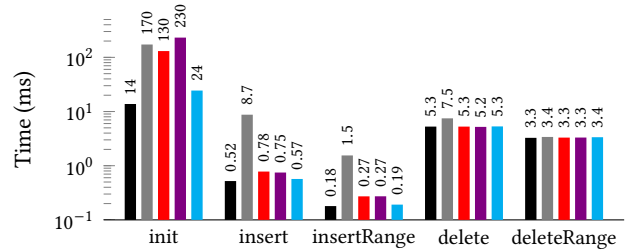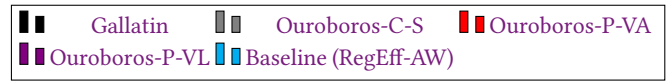
(a) Performance for insertions and deletions
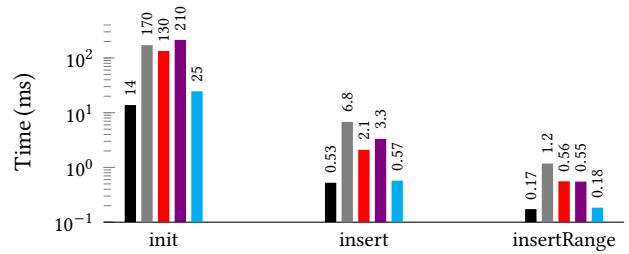

(b) Performance for expansions only

Figure 1. Performance on the graph tests. The y-axis is the mean runtime over 100 iterations. Lower is better.
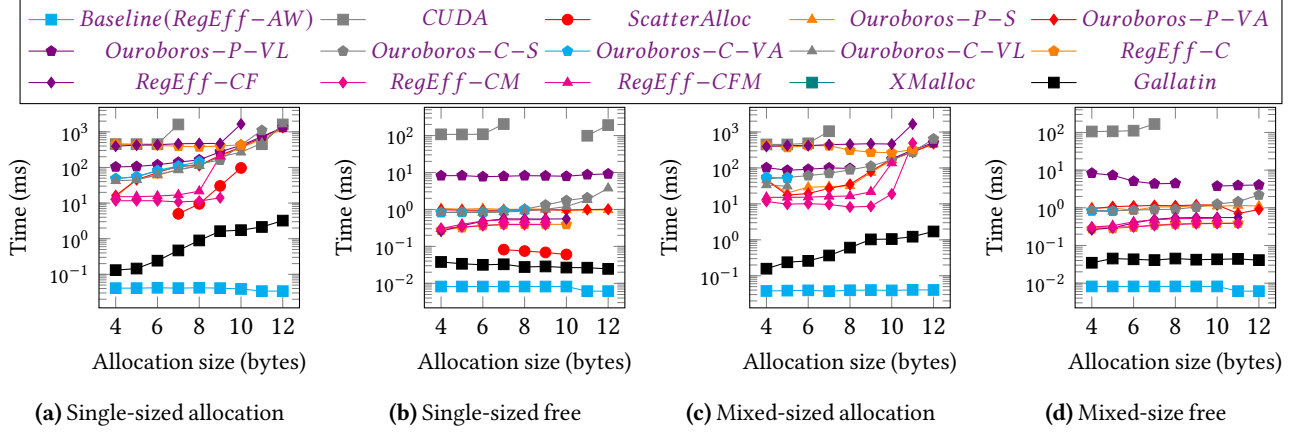
Figure 2. Allocation and free performance for single and mixed-size tests. Each allocation/free is handled by a unique thread. The x-axis is the log_2 of the allocation size for the single-size tests and the upper range for the mixed-size tests, with the lower range fixed at 16 bytes. The y-axis is median latency per thread across 50 runs. Lower is better.

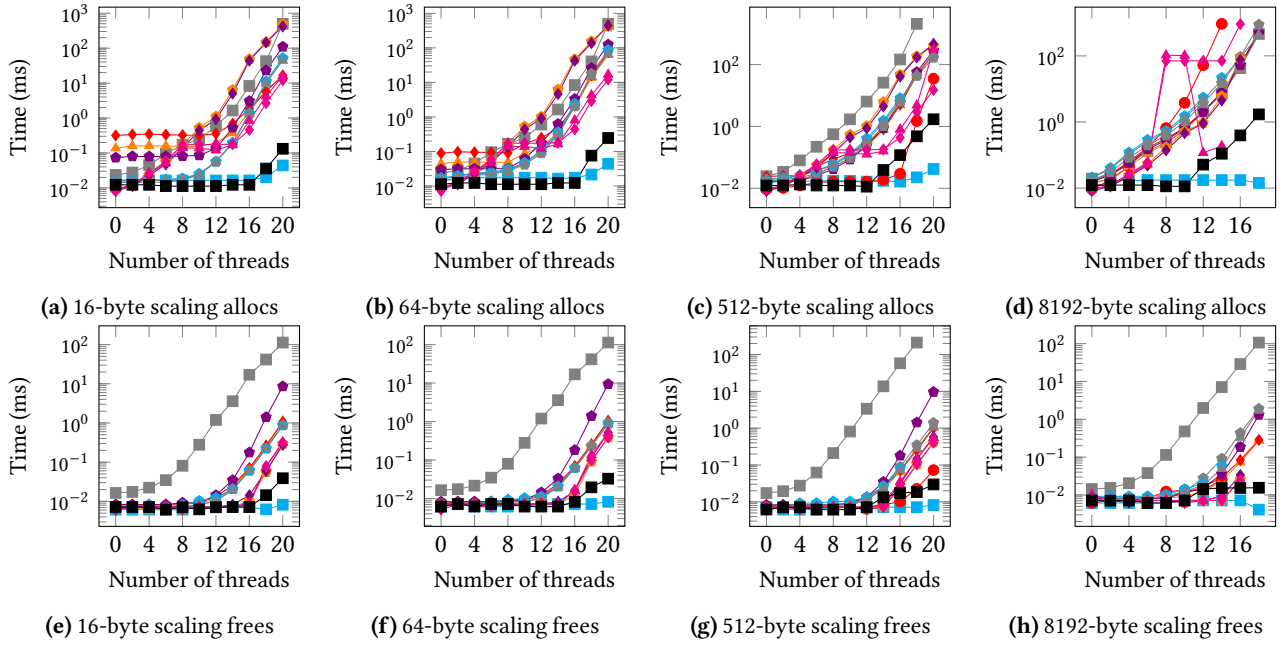**Figure 3.** Scaling allocation tests and free tests for various allocation sizes. The x-axis is the log_2 of the number of threads with the allocation size held constant. The y-axis is the median latency per thread over 50 runs. Lower is better.

(a) Single-size fragmentation

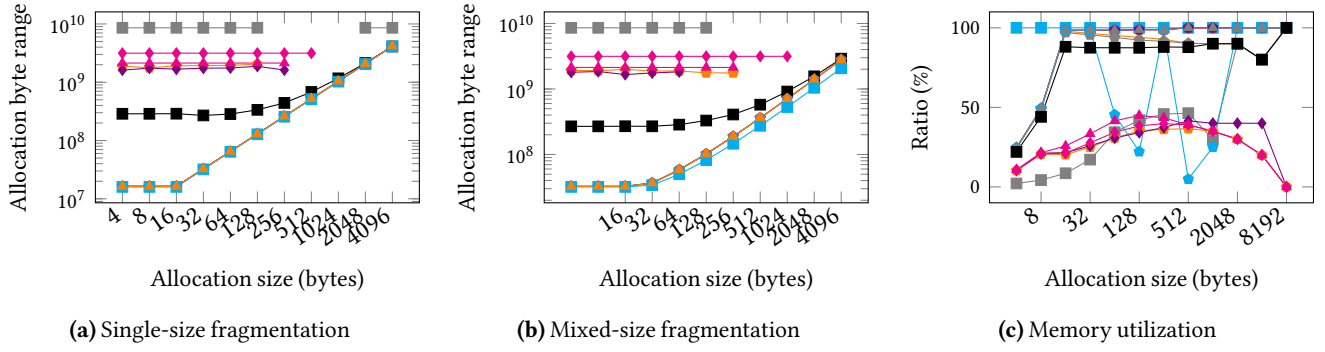**(b)** Mixed-size fragmentation

(c) Memory utilization

Figure 4. Fragmentation performance for both single-sized and mixed-size allocations, along with the memory utilization performance. (a,b) For the fragmentation tests, the x-axis is the allocation size for the single-sized test and the upper bound of the range for the mixed-size test, with the lower bound being fixed at 16 bytes. The y-axis is the difference between the highest and lowest address given for an allocation. Lower is better. (c) For the utilization tests, the y-axis is a ratio compared to the maximum possible number of allocations that could be given. Higher is better.