Assignment 3
Operating System 2

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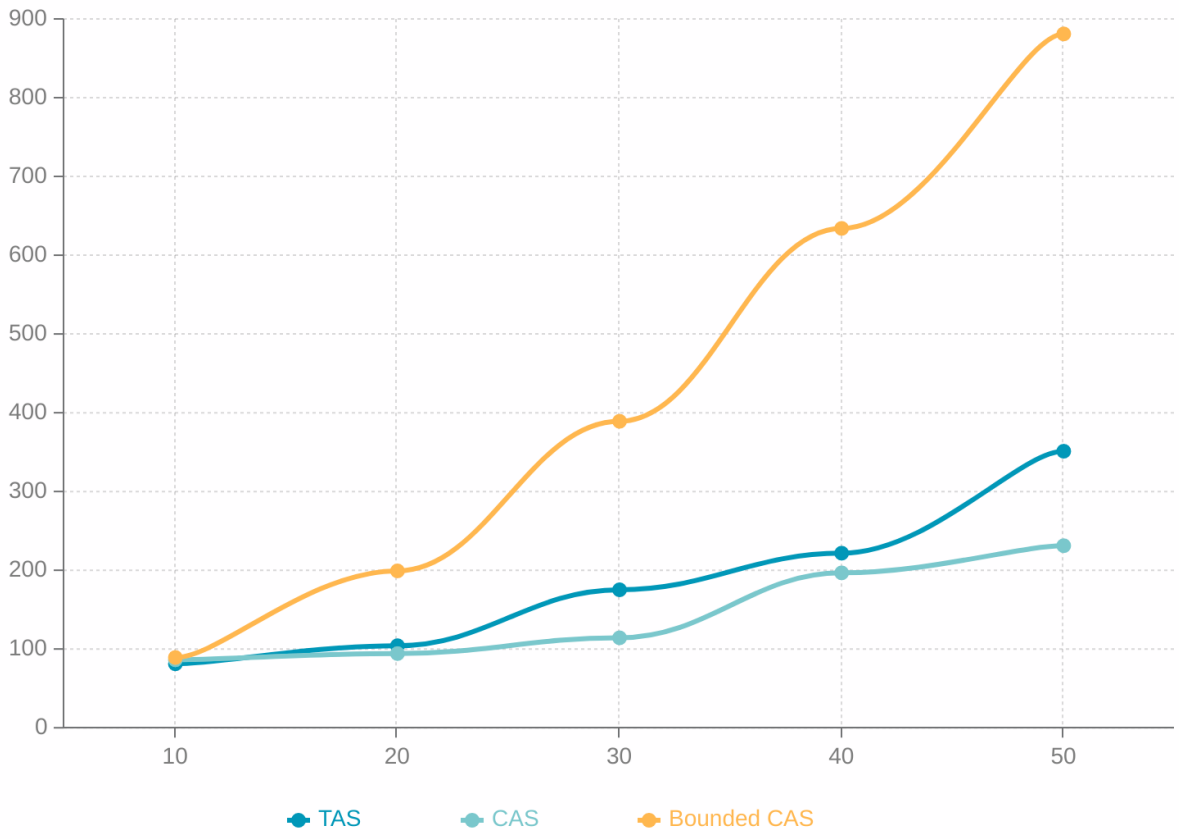
Paramters:

n : 10, 20, 30, 40, 50
k: 10
λ1: 3
λ2: 3

Scale:

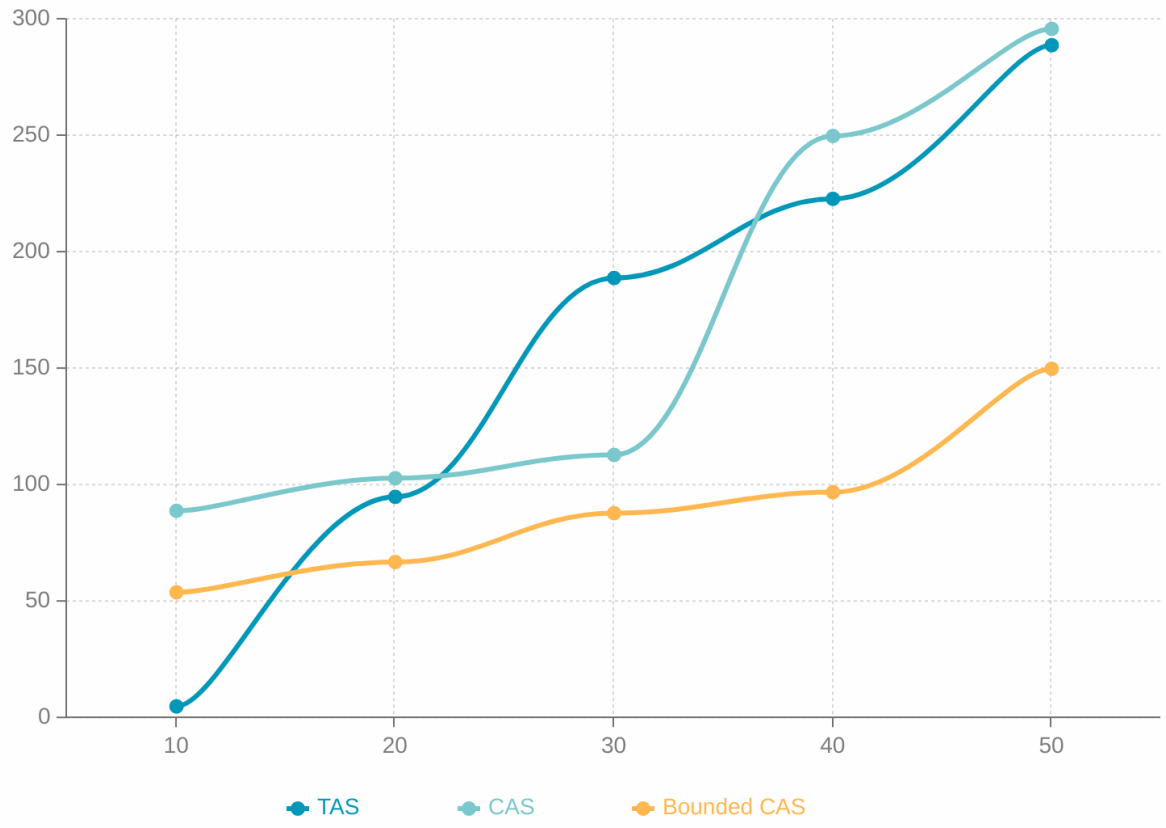
X-Axis: Number of threads
Y-Axis: Average of Worst Waiting Time (Milliseconds)



The worst-case time is taken by a process to enter the CS in a simulation

Analysis Points:

- The worst-case time taken by the algorithm is order
  Bounded CAS >> CAS >≈ TAS
- For lower values of n, i.e. number of threads, the worst-case time is almost equal.
- For higher values of n, the worst-case time of the algorithm Bounded CAS is very high as compared to the TAS and CAS.
  On a rough note, CAS time is also higher than TAS



Scale:

X-Axis: Number of threads

Y-Axis: Average time is taken to enter CS (Milliseconds)

The average time is taken to enter the CS by each thread

Analysis Points:

- The average time by bounded CAS is very less than the CAS and TAS
- CAS and TAS have almost the same average time.
- The algorithms are in order:
  TAS ≈ CAS < Bounded CAS
- TAS is very good for lower values of n, the number of threads.
- CAS and Bounded CAS are not good for lower values of threads.