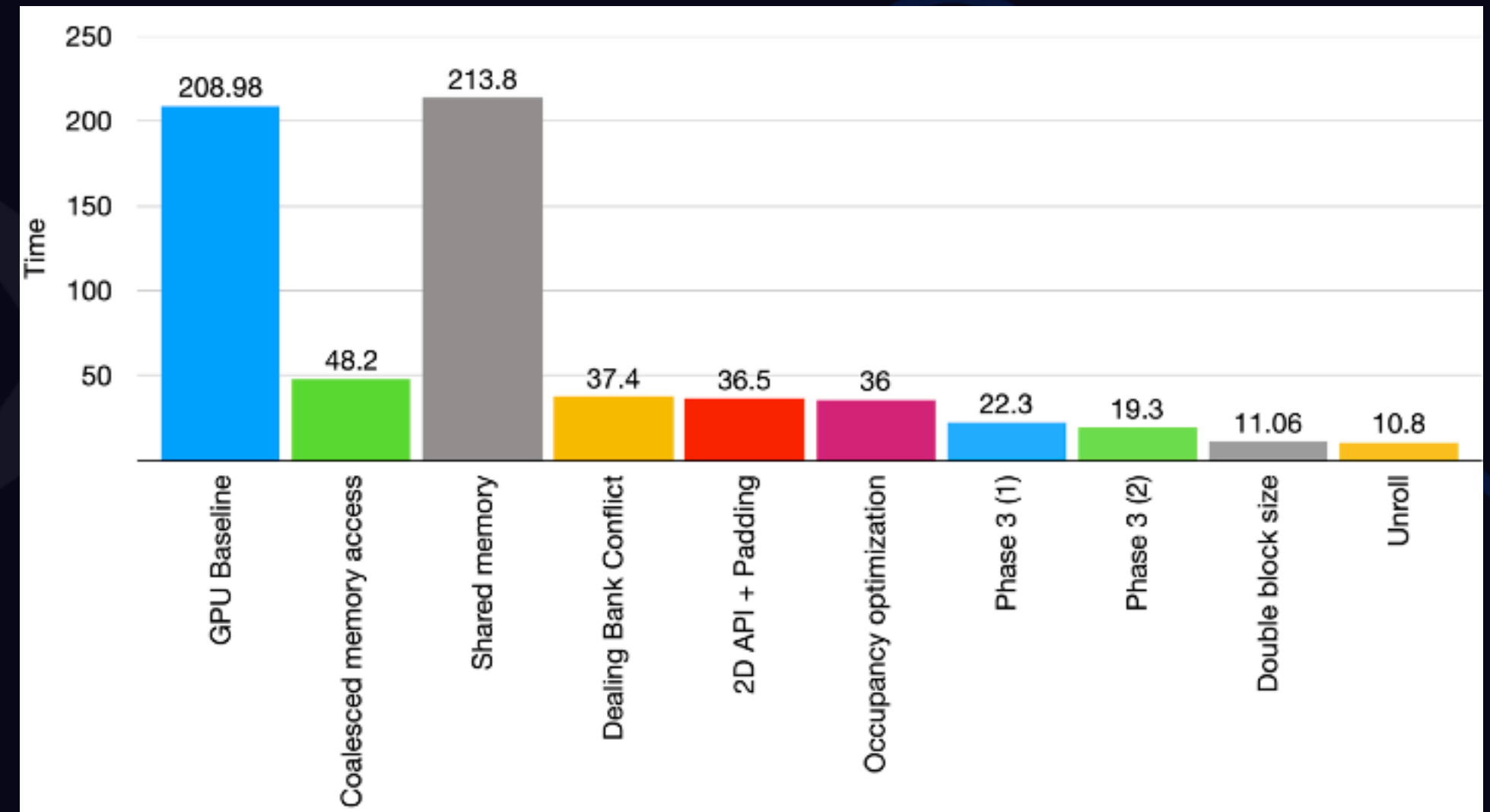


# Optimization

- CPU Baseline:  $> 10^4$
- GPU Baseline: 209
- GPU Final: 10.8



# 0/1 Knapsack

- Optimization of Multi-Class 0/1 Knapsack Problem on GPUs by Minimizing Memory Overhead
- Submitted to ACM Transactions on Parallel Computing

Model	Architecture	Cores	FP32 peak op per sec	Memory size (GB)	Memory bandwidth	Price (USD)	Release year
RTX3070	Ampere	5888	20.3T @1725MHz	8	448GB/s	500	2020
V100 SXM2	Volta	5120	15.7T @1380MHz	32	900GB/s	>10,000	2017