# Methods for Optimal Control of Three Work-Stealing Deques in Two-Level Memory

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The uniform workload of tasks between threads presents a significant problem in parallel computing. Various strategies and methods of load balancing are utilized to resolve this issue. Non-centralized dynamic load balancing is one of these strategies: the distribution of tasks is performed by threads while the system is running. Work stealing is one of the methods within this strategy: threads that run out of tasks steal them from other threads. In this method, for each thread, there must be a specialized "work-stealing deque" in which pointers to the thread's tasks are stored and from which other threads can steal. The shortage of semiconductors and microchips affects the availability and price of computer memory. Thus, problems of efficient utilization of existing memory capacities without additional extensions are still relevant. One of the ways of efficient memory management is the optimal control of data structures that arise in computer memory. In this paper, we discuss methods for representing three work-stealing deques in two-level memory and research a new problem: finding the optimal positions of three deques in memory areas. The optimality criterion is the maximum mean system operating time (the average number of operations) before memory reallocation.