

Special Issue

Data Structures for Graphics Processing Units (GPUs)

Message from the Guest Editors

GPUs, originally designed for rendering graphics, have emerged as powerful parallel processors, revolutionizing computational tasks across diverse domains.

Contributors to this Special Issue will present cutting-edge research into a variety of GPU-optimized data structures, including, but not limited to, stacks, queues, trees, graphs, hash tables, and priority queues. The articles will highlight novel approaches to memory management, data access patterns, and algorithmic modifications that harness the massive parallelism of GPUs.

Furthermore, this Special Issue will address practical challenges, such as synchronization, load balancing, and efficient data transfer between CPU and GPU memory.

By featuring both theoretical advancements and practical implementations, this Special Issue will bridge the gap between traditional CPU-centric data structures and their GPU-optimized counterparts. Readers will gain insights into the latest techniques for maximizing GPU performance, making this Special Issue an essential resource for researchers and practitioners seeking to exploit the full potential of GPU computing for data-intensive applications.

Guest Editors

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About the Journal

Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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