Special Issue

Non-volatile Memory Technologies for Neuromorphic Computing

Message from the Guest Editors

The emergence of new data-intensive applications has led to a pressing need for enabling cognitive capabilities in the electronic systems. Towards that end, neuromorphic computing has shown an immense potential, wherein the artificial neurons and synapses and their complex network lead to a massively parallel processing of data with a tight compute-memory coupling. Non-volatile devices assume a prime importance for not only enabling low power inference but also supporting efficient and adaptive training mechanisms. This Special Issue aims to bring together the advancements in non-volatile memory technologies targeted towards neuromorphic computing. Contributions are sought in diverse areas spanning experimental studies of such technologies, device-circuit co-design of synaptic sub-systems, explorations of novel neural network architectures supported by the emerging non-volatile devices and the development of new learning algorithms enabled by the unique properties of the non-volatile memory technologies. This issue invites novel contributions, review papers and perspective articles on these topics.

Guest Editors

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