Special Issue

Advances in Computational Neuroscience

Message from the Guest Editor

With the rapid development in deep-learning algorithms, artificial neural networks, and a deeper understanding of mental disorders at the neuronal level, we have witnessed the giant advancement of computational neuroscience in recent years, including computational methodologies, biological traits, and even the artificial-intelligence-based theories of mind. Such advancement has been especially prominent within the field of memory and mental-related research, in which the combination of the personalized genome, optogenetics, and in silico simulation of neural networks within brain regions made it possible to interpret and model higher neural functionalities. Here, we invite researchers from all spectra and disciplines of computational neuroscience to contribute their investigation outputs to this Special Issue, including, but not limited to, synaptic modeling and regulation, neural network patterning and topological analysis, EEG/fMRI-based imaging observations and functional brain mass modeling, information theory, and other multidisciplinary background studies. We sincerely look forward to receiving your valuable contributions.

Guest Editor

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Message from the Editor-in-Chief

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