

Stimulation of Plastic, Efficient Balanced Networks

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Purpose: Numerically Investigate Decoupling Stimulation Techniques on Efficient Balanced Networks with Plastic Weights.

Methods:

Generate a Network of LIF Neurons using the Efficient Balanced Networks (EBN) Framework (cite den-eve).

Model Synaptic Plasticity via STDP on synaptic connections between neurons.

Include Coordinated Reset and Random Reset Stimulation Techniques as Input Signal to EBN Networks

Study the resulting neuron voltage dynamics, the network's readout by: 1) Measuring the Synchrony of the Neuron Voltages 2) Measuring the RMSE of the Network Readout vs The EBN