

Spiking Neuron

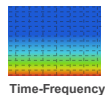
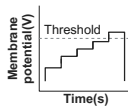
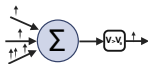
Architecture

Dynamics

Input

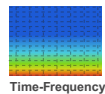
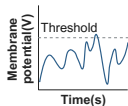
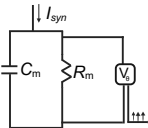
Metrics

Integrate Fire (IF)



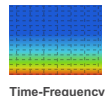
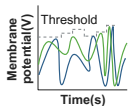
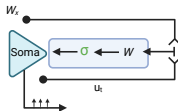
- ✓ Faster Computation
- ✗ Accurate Seizure Detection
- ✗ Time-Domain Analysis
- ✗ Low Processing Workload

Leaky Integrate-And-Fire (LIF)



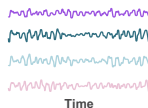
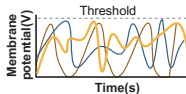
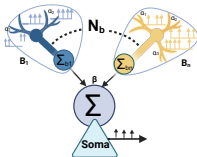
- ✓ Faster Computation
- ✗ Accurate Seizure Detection
- ✗ Time-Domain Analysis
- ✗ Low Processing Workload

Liquid Time Constant (LTC)



- ✓ Faster Computation
- ✓ Accurate Seizure Detection
- ✗ Time-Domain Analysis
- ✗ Low Processing Workload

Dendritic (dSN)



- ✓ Faster Computation
- ✗ Accurate Seizure Detection
- ✓ Time-Domain Analysis
- ✓ Low Processing Workload

Faster Processing