

CRUNCH Seminars at Brown, Division of Applied Mathematics

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Function regression using Spiking DeepONet

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Today, the human brain is the most efficient learning machine. Even though there is a resemblance between the Artificial Neural Network (ANN) to the network in the brain, they operate differently. In this talk, a different learning paradigm will be presented - a more biologically-plausible one. We will discuss Spiking Neural Networks (SNNs), which are designed to mimic the learning done in the brain and the different components such as the biological neuron, the membrane, synapses, etc. Next, we will show how this can be used for function regression and how DeepONets can be integrated to an SNN to get better performance