

1116-VC-1994 **Anushaya Mohapatra***, 1237 NW 23rd Street Apt 10, Corvallis, OR , and **Mike Field**. *Spike Time Dependent Plasticity in Spiking Neural Network*.

To determine which inputs for a neuron are important and which information a neuron should listen to is an important problem during brain development and during learning. Spike-Timing Dependent Plasticity (STDP) is a physiological adaptation mechanism of synaptic regulation which make a neuron to determine which neighboring neurons are worth by potentiating those inputs and depressing the other. We work on obtaining a good mathematical understanding the mechanism and its ability of frequency detection. (Received September 21, 2015)