

1096-VL-2723 **Christina H Lee*** (leec@tcnj.edu), The College of New Jersey, Dept. of Mathematics and Statistics, Ewing, NJ 08550. *Brain Waves*.

This talk describes a study of spiral- and target-like waves traveling in a two-dimensional network of integrate-and-fire neurons with close-neighbor coupling. The individual neurons are driven by Poisson trains of incoming spikes. Each wave nucleates as a result of a fluctuation in the drive. It begins as a target or a spiral, and eventually evolves into a straight "zebra"-like grating. Some of the waves contain defects arising from collisions with other waves. The wavelength and wave speed of the patterns were investigated, as were the temporal power spectra of the oscillations experienced by the individual neurons as waves were passing through them. (Received September 18, 2013)