1131-14-71   **Nida Obatake*** (`nida@math.tamu.edu`), **Elizabeth Gross** and **Nora Youngs**. *Place field diagrams of convex neural codes.*

A rat has special neurons that encode its geographic location. These neurons are called place cells and each place cell corresponds to a region in the space, called a place field. Neural codes are collections of the firing patterns of place cells. In this talk, we investigate how to algorithmically draw a place field diagram of a convex neural code, building on existing work studying neural codes, ideas developed in the field of information visualization, and the toric ideal of a neural code. This talk is based on joint work with Elizabeth Gross and Nora Youngs. (Received July 02, 2017)