

1077-94-1546

Carina Curto (ccurto2@math.unl.edu), **Vladimir Itskov** (vitskov2@math.unl.edu),
Katherine Morrison* (s-kmorri11@math.unl.edu), **Zach Roth** (s-zroth1@math.unl.edu)
and **Judy Walker** (jwalker7@math.unl.edu). *A coding theory perspective on combinatorial
neural codes.*

We analyze combinatorial neural codes from a coding theory perspective. Specifically, we focus on the class of combinatorial codes known as receptive field codes. At first glance, these codes appear to perform horribly compared to various other codes with similar parameters, but we give insights as to why the brain might in fact favor them. (Received September 20, 2011)