1171-05-189 **R Amzi Jeffs*** (cataclysmstudio@gmail.com). *Classifying all embedding dimension vectors of combinatorial codes.* Preliminary report.

The relationship between combinatorial codes and their geometric realizations is partially captured by "embedding dimension" invariants. These embedding dimensions describe the smallest dimension in which one can find a certain type of realization of a code. We will describe relationships between three embedding dimensions: open convex, closed convex, and non-degenerate. We will see that, beyond some immediate inequalities, these embedding dimensions are independent of one another in general. We will provide concrete families of examples to prove this, using two recent geometric results: a "sunflower theorem" that we proved in 2018, and a more recent notion of "rigid structure" defined by Chan, Johnston, Lent, Ruys de Perez, and Shiu. (Received August 10, 2021)