## 1135-00-2009 **Gwen Spencer\*** (gwenspencer@gmail.com) and **Greg Clark**. How Low Can You Go? On the Biplanar Crossing Number of the Hypercube.

Suppose that for G = (V, E), the edge set E is partitioned into two disjoint subsets,  $E_1$  and  $E_2$ , and let  $G_i = (V, E_i)$ . Each  $G_i$  has some crossing number  $cr(G_i)$ . The *Biplanar Crossing Number* of G is the minimum of  $cr(G_1) + cr(G_2)$ over all partitions of E. Crossing Numbers for hypercubes are poorly understood (for  $k \ge 5$ , the crossing number of the k-cube is unknown), and the best biplanar drawings known for hypercubes rely on highly-symmetric partitions of Einto smaller hypercubes (or modified hypercubes). I will mention some new results on the *Biplanar Crossing Number* of low-dimensional hypercubes. (Received September 25, 2017)