

1116-05-1157 **Sinan G Aksoy*** (saksoy@ucsd.edu), Department of Mathematics, 9500 Gilman Drive #0112, La Jolla, CA 92093, and **Paul Horn** (paul.horn@du.edu), Department of Mathematics, Aspen Hall, Room 717, 2280 S. Vine Street, Denver, CO 80208. *Graphs with many strong orientations.*

The classic Robbins' theorem provides a simple criterion for determining whether a graph's edges can be oriented to yield a strongly connected directed graph. While determining the existence of a strong orientation is straightforward, it is more difficult to count all strong orientations of a given graph. In this talk, we establish mild conditions under which almost all of a graph's orientations are strongly connected. Unless prohibitively large, a minimum degree requirement alone is insufficient; it neither suffices to only control a graph's "bottleneck" through an isoperimetric condition. However, we prove a mild combination of these properties ensures (almost all) a graph's orientations are strongly connected. We also provide a construction to show these conditions are, up to a small factor, best possible. (Received September 17, 2015)