

1065-52-222

**James E. Mihalisin\*** (mihalisi@meredith.edu), Meredith College, SMB, 3800 Hillsborough St., Raleigh, NC 27607. *Near Cubes: A relatively simple family of simple relatives of the cube*. Preliminary report.

The family of "near cubes" will be defined. Simply put – near cubes are the convex polytopes and non-convex polytopal complexes that are obtainable by performing a sequence of "clique swaps" on the d-cube. A "clique-swap" is just the dual version of a bi-stellar flip.

The combinatorial symmetries of the near cubes will be determined and the non-convexity of some of them will be discussed.

As time permits and audience interest allows, the connection between clique swaps and the Gale transform will be discussed and the general utility of clique swaps will be debated. (Received September 14, 2010)