1054-55-245　　　　**Jonathan W Lee*** (`jlee@math.stanford.edu`), Stanford University Mathematics Department, Building 380, 450 Serra Mall, Stanford, CA 94305-2125. *Homotopy colimits and the space of square-zero upper-triangular matrices.* Preliminary report.

Given an irreducible component X of the variety of square-zero upper-triangular matrices, a combinatorial formula developed by Rothbach gives a stratification of X into orbits of the Borel group. Specializing to the complex numbers and imposing a rank condition motivated by the Halperin-Carlsson conjecture on the free ranks of products of spheres, we consider a coarser stratification into orbits of the parabolic group, which facilitates a homotopy-theoretic description of X as the homotopy colimit of simpler spaces more amenable to cohomology calculations. (Received September 15, 2009)