

1138-60-343

Andrew Newman, Hoi Nguyen and **Elliot Paquette*** (paquette.30@osu.edu). *Algebraic questions about combinatorial random matrices.*

We present a few models and some recent progress about combinatorial random matrices. Broadly, in these models, we consider matrices of a fixed number of rows where independent columns are added one at a time. We then ask for the threshold for a variety of algebraic properties. For example, one question is to find the threshold for the surjectivity of the matrix over the integers. Another is to find the threshold for the matrix to have no torsion, i.e. so the cokernel of the matrix has no finite order elements. (Received February 12, 2018)