1022-05-6 Richard P. Anstee* (anstee@math.ubc.ca), Mathematics Department, #121-1984 Mathematics Rd., Unioversity of British Columbia, Vancouver, BC V6T 1Z2, Canada. Forbidden Configurations, a survey.

The talk will review some results about Forbidden Configurations while introducing a conjecture. Let F be a k x l (0,1)-matrix. We define a matrix to be simple if it is a (0,1)-matrix with no repeated columns. We say that a simple matrix A has no F-configuration if no submatrix of A is a row and column permutation of F. We are interested in the extremal function forb(m,F) which is the maximum number of columns in an m-rowed simple matrix that has no F-configuration. A conjecture of Sali and A. predicts the asymptotic behaviour of forb(m,F) for fixed F as m tends to infinity by identifying some easy but seemingly important constructions. Many results have been obtained concerning forb(m,F) using proof techniques such as standard induction, linear algebra, stability results and shifting techniques. The conjecture has been established for k=2 or 3 and any l by Anstee, Griggs and Sali and for l=2 and any k with Keevash. (Received March 16, 2006)