TREVOR BRUEN, Saint Francis Xavier University *A characterization of certain (0,1) matrices*

Let A be a square (0,1) v by v matrix with constant row and column sums. Assume furthermore that A has no $(\lambda, 2)$ isolated zeroes. That is, assume A has no λ by 2 submatrix containing exactly one 0. Under suitable conditions we obtain a lower bound on v and characterize the case of equality.