1163-05-944Axel Gomez* (axel.gomez@upr.edu), Lucy A Martinez, Jan Carrasquillo-Lopez, HeidiD. Perez, Sebastian Papanikolaou and Lino Yoshikawa. Minimum Rank of Regular Bipartite
Graphs.

The minimum rank of a graph G is the smallest possible rank of a matrix A over any field with the same off-diagonal, nonzero pattern as the adjacency matrix of G. In this talk, we show the true minimum rank of a class of n - 1 regular bipartite graphs where $|V_1| = |V_2| = n$ using zero forcing sets and linear recursive sequences. We also discuss the relation between the minimum rank of G and the possible dimension of a Locally Recoverable Code whose recovery sets are the neighborhoods of G. (Received September 14, 2020)