Combined matrices and conditioning

Rafael Bru[♭],

(♭) Institut de Matemàtica Multidisciplinar
Universitat Politècnica de València.

Abstract

In this talk, we study a lower bound of the condition number of a matrix by its combined matrix. In particular, we construct a special combined matrix in such a way that the sums of its columns are lower bounds of the condition number of the matrix. Cases for special matrices as unitary matrices are considered.

On the other hand, if I have time I would like to include a few words about a valencian mathematician of the XVIII century.