

Accurate computations for some subclasses of totally positive matrices

Jorge Delgado¹, Héctor Orera¹ and Juan Manuel Peña¹

¹*Universidad de Zaragoza, Spain*

Abstract

In this talk, methods for the accurate computation of the bidiagonal decompositions of some totally positive matrices will be recalled. Then, we will show how these accurate bidiagonal decompositions allow us to calculate with high relative accuracy the eigenvalues, singular values, and inverses of the corresponding matrices.

Keywords

Algebraic computations, High relative accuracy, Total positivity.