

# Further developments in estimation of the infinity norm of the inverse matrix

Ljiljana Cvetković<sup>1</sup>, Ksenija Doroslovački<sup>1</sup>  
and Dragana Gardašević<sup>2</sup>

<sup>1</sup>University of Novi Sad, Serbia

<sup>2</sup>Belgrade Polytechnic, Serbia

## Abstract

In different type of research it is important to estimate the infinity norm of the inverse matrix. A very nice result for certain M- and H-matrices has been published in [1]. However, there are some subclasses of M- and H-matrices, like Nekrasov class, which are not covered with this paper. We will present an upper bound for these subclasses, and illustrate it with numerical examples. Moreover, we will derive a new estimation for the inverse of a strictly diagonally dominant matrix.

## Keywords

Inverse matrix, Infinity norm, H-matrices, Nekrasov matrices.

## References

- [1] Kolotilina, L.Yu. (2009). Bounds for the infinity norm of the inverse for certain M- and H-matrices. *Linear Algebra Appl.* 430, 692–702.