

SOME IMPROVED RECURSIONS ON ARNOLDI'S METHOD

V. MONESCU¹ S. DUMITRESCU¹

Abstract: *In 2000 Jia introduced some recursions based on Arnoldi's method to improve inverse Hessenberg matrices computation. Hessenberg matrices are used to find the solution for non Hermitian linear systems, especially large linear systems, as intermediate step in algorithms which are based on Arnoldi's method. Working with these recursions particular forms are obtained in order to be more useful in computation. There are illustrative examples included.*

Key words: *Arnoldi's method, Hessenberg matrix, recursions*

¹ Computer Science Department, Transilvania University of Braşov.