



The Use of Matlab/Maple in Solving Interval Hull Of A System of Linear Interval Equations

[Sri Harini Mahmudi](#)

(Department of Mathematics, University of Indonesia, Depok Campus, Depok 16424)

Open PDF-File: [g_mahmud.pdf](#) (87 KB)

Abstract:

The use of Matlab/Maple in solving a system of linear equations are well known mostly for all of us. But solving of a system of linear interval equation : $AX = b$, where $A = [A,]$, $b = [b,]$ is not so simple. It needs to know about interval algebra first, rather than using Matlab/Maple straightly, because Matlab does not support interval computation. In spite of that, interval arithmetic is an elegant tool for practical work with inequalities, approximate number, error bounds and more generally with certain convex and bound sets. Thats why I eager to know how to compute the interval hull of those system using the interval Gausse eliminations supported by Matlab and Maple software. In this paper we want to compute the system of linear interval equations, which we can adopt the theoretical issue from many paper that written in some mathematical journals. Moreover we can compare the results in order to see what is there any differences between computing by Matlab and Maple software under various conditions.
