
Parallel improvements of monotonicity approach

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Recently, we have proposed several improvements of the standard monotonicity approach to solving parametric interval linear systems. The obtained results turned out to be very promising; i.e., we have achieved narrower bounds while generally preserving the computational time. Nevertheless the monotonicity approach is an expensive technique which is a main obstacle in broader exploitation of this method in solving practical problems. Therefore, in this paper we propose further improvements of the monotonicity approach which aim to decrease the computational time of the method.

Keywords: parametric linear systems, monotonicity approach, revised affine forms, parallel techniques.