

On the behaviour of the underrelaxed Hildreth's row-action method for computing projections onto polyhedra

Abstract

A strongly underrelaxed sequential version of the Hildreth's iterative algorithm for norm minimization over linear inequalities is presented. Proofs are given showing that the algorithm converges from any starting point to its projection onto the linear constraint set in the feasible case and to the nearest least squares solution in the general case. © 2023, The Author(s), under exclusive license to Operational Research Society of India.