Modified Han algorithm for inconsistent linear inequalities

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ABSTRACT.

In this paper we present a modified version of S. P. Han iterative method for solving inconsistent systems of linear inequalities. Our method uses an iterative Kaczmarz-type solver to approximate the minimal norm least squares solution of the problems involved in each iteration of Han's algorithm. We prove some convergence properties for the sequence of approximations generated in this way and present numerical experiments and comparisons with Han's and other direct solver based methods for inconsistent linear inequalities.

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