

The splitting method with linear search for primal-dual variational inequalities

Konnov I.

Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

The problem of finding a solution to a set of primal-dual variational inequalities that reduces to a variational inequality with respect to a sum of monotonic mappings is considered. The latter problem is solved by the splitting method. In the framework of this method, a linear search procedure is suggested that ensures convergence without the use of a priori characteristics of the problem under rather general conditions. Models of static and dynamic equilibrium in economics are described that satisfy these conditions. Copyright © 2003 by MAIK "Nauka/Interperiodica".
