Optimisation problems for control of distributed resources

Konnov I., Kashina O., Laitinen E.
Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

We consider a two-level optimisation problem of resource allocation in communication networks, which is based on profit maximisation of the network subject to capacity constraints. The cost function of the upper level problem involves a sum of non-differentiable functions whose values are computed algorithmically. The corresponding solution methods utilise duality theory and decomposition technique for optimisation problems. Copyright © 2011 Inderscience Enterprises Ltd.

Keywords

Decomposition, Duality, Non-differentiable functions, Optimisation, Resource allocation