

ON OPTIMALITY TEST FOR THE MINIMUM COST FLOW PROBLEM WITH CONVEX COST FUNCTION

Cristian DOBRE*

Abstract: Starting from the optimality test of the Minimum Cost Flow problem with linear objective function and the way of keeping a convex function defined on integer numbers, an adaptation of the optimality test in the case of a convex cost function is proposed. The main topics in this article are related to the interpretation of node potential in linear model, the changes that occur because of the convexity and the way of defining the test for the convex model.

Key words: convex programming, combinatorial optimization, optimality conditions.

* Computer Science Department, Transilvania University of Braşov.