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Original Articles

The Model for Two-dimensional Layout Optimization Problem with Performance Constraints and Its Optimality Function

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摘要 This paper studies the two-dimensional layout optimization problem. An optimization model with performance constraints is presented. The layout problem is partitioned into finite subproblems in terms of graph theory, in such a way of that each subproblem overcomes its on-off nature optimal variable. A minimax problem is constructed that is locally equivalent to each subproblem. By using this minimax problem, we present the optimality function for every subproblem and prove that the first order necessary optimality condition is satisfied at a point if and only if this point is a zero of optimality function.

关键词 Two-dimensional layout problem, semi-infinite optimization, optimality function

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Abstract

Key words

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