

工程与应用

改进蚁群算法在公路煤运路径选择中的应用

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摘要 分析了公路煤运的特点, 从选择策略和信息挥发速度两方面简要改进了基本蚁群算法, 较好地克服了其最优解不稳定和易陷入局部最优解的缺点; 根据煤炭联盟运输调度模型的特点, 从构造三类分支回路入手构造了模型的可行解, 解决了用蚁群算法时不易发现可行解的问题; 最后用改进的蚁群算法对模型进行了求解, 实验分析结果表明算法有效。

关键词 [运输调度](#) [蚁群算法](#) [物流](#) [路径选择](#)

分类号

Improved ant colony algorithm and its application in routing selection of coal transportation

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Abstract

Based on the characteristics of coal highway transportation, basic ant colony algorithm in terms of selection strategy and volatile speed of pheromones are briefly improved so as to overcome the shortcoming of instability of optimal solution and easy lapsing into local optimal solution. According to the model, feasible solution is constructed, which includes three model loop branches, in order to resolve the difficult of using ant algorithm in finding a feasible solution. Finally, the experimental analysis shows that it is feasible to solve the difficulty in model application with the improved ant colony algorithm.

Key words [transportation management](#) [ant colony algorithm](#) [logistics](#) [routing selection](#)

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