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Traffic assignment: methods and simulations for an alternative formulation of the fixed demand problem. (English) [Zbl 07316564](#)
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Summary: Motorists often face the dilemma of choosing the route enabling them to realise the fastest (i.e., shortest) journey time. In this paper we examine discrete and continuous optimisation and equilibrium-type problems for a simplified parallel link traffic model using a variance based approach. Various methodologies used for solving these problems (brute force, dynamic programming, tabu search, steepest descent) are explored and comparison is made with the Beckmann cost function employed in transport modelling.

MSC:

90Cxx Mathematical programming

49Jxx Existence theories in calculus of variations and optimal control

Keywords:

traffic assignment; optimal flow; equilibrium flow; Tabu search; dynamic programming

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