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A Study of Traffic Assignment Algorithms

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Abstract: In a traffic network, users usually choose their way so that it reduces their travel time between pairs origin-destination. This behavior might seem selfish as it produces congestions in different parts of the network. The traffic assignment problem (TAP) models the interactions between congestion and user travel decisions to obtain vehicles flows over each axis of the traffic network. The resolution methods of TAP serve as a tool allows predicting users' distribution, identifying congesting points and affecting the travelers' behavior in the choice of their route in the network following dynamic data. In this article, we will present a review about specific resolution approach of TAP. A comparative analysis is carried out on those approaches so that it highlights the characteristics, advantages and disadvantages of each.

Keywords: network traffic, travel decisions, approaches, traffic assignment, flows

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