

# Scheduling and Optimizing the Headway of Bus Rapid Transit<sup>4</sup>

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**Abstract:** Nowadays, bus rapid transit (BRT) is used in many cities all over the world. In order to improve BRT operation quality, the headway optimization and scheduling of BRT vehicles have attracted the attention of researchers. We propose a new formulation in which passengers' travel costs and vehicles' cost are minimized. To avoid congestion at intersections, the control of signal traffic light is also taken into account. This non-linear optimization problem is solved by genetic algorithm. The numerical result shows that the proposed model is promising.

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