Rolling Stock Scheduling Algorithm for Temporary Timetable After Natural Disaster

Satoshi KATO Jun IMAIZUMI Taichi NAKAHIGASHI Tatsuya KOKUBO

In this paper, we focus on rolling stock scheduling after a large-scale natural disaster. In general, a temporary timetable is generated when some sections in of the line are partially disrupted from the damage caused by the disaster. The next step is to create a rolling stock schedule that is as close as possible to the basic schedule at the time of the timetable revision. We propose a two-phase rolling stock scheduling method based on the mathematical programming algorithm to cope with the temporarily changed timetable. In addition, we confirm that the proposed algorithm can produce a practical solution in terms of evaluation criteria and computational time.