

**Analysis and Verification of Passengers' Train Choice Behavior
Considering the Imbalance in Load Factors between Extra and Regular Trains**

Daiki OKUDA Seiya HOKIMOTO Wataru INABA

On high-grade lines served by Shinkansen or limited express trains, the load factor of extra trains is often significantly lower than that of regular trains, even when the level of service is comparable. This study conducted a basic investigation into passengers' train choice behavior, as it is considered a potential factor contributing to this imbalance. Firstly, a comparative analysis of booking curves for extra and regular trains was conducted to identify passengers' train choice patterns. Secondly, based on the identified choice patterns, two hypotheses regarding the relationship between load factor disparity and passenger choice behavior were formulated under different assumptions. Finally, the validity of these hypotheses was verified using actual choice behavior data obtained from an on-board questionnaire survey conducted on a certain high-grade line.