

Fatigue Design Considering Simultaneous Train Loading On Double-track Bridges

Yusuke KOBAYASHI Ichiro SUGIMOTO

Since the daily number of trains has dramatically increased recently, it has become a significant factor for the fatigue design of railway steel bridges to assess the impact of simultaneous train loadings on double-track bridges. This research conducted Monte Carlo simulation to assess the impact considering several kinds of parameters, and evaluated the degree of the contribution of each parameter to the fatigue damage in the simultaneous train loadings. Finally, this research proposed a new method and coefficient in the fatigue design which takes the simultaneous train loading into consideration.