

Monitoring Method for Rail Corrugation by On-board Measurement

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Appropriate maintenance and control of rail corrugations is requested since they cause noise and vibration. However, the management of corrugations is generally carried out by a simple inspection during the track patrol. In this research, we examined an efficient evaluation technique for corrugations based on the on-board measured data. Analyzed on-board measured data include internal noise and car body acceleration, in addition to axle-box accelerations. As a result of analysis, we showed that the location of generated corrugation was able to be detected by processing signal data on the distance axis. We also executed the site measurement in the section where the corrugation was detected by the proposed method. As a result, it was also shown that the degree of the corrugation size could be estimated by this technique.