

**Technique for Predicting Vibration of Bogies under Running Conditions**  
**Based on the Transfer Characteristics between Axle Boxes and Evaluated Points**

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It is an important issue to investigate the vibration behavior of railway bogies. A technique for predicting the vibration of bogie parts is proposed by which the acceleration power spectral densities (PSDs) at evaluated points are predicted with the use of frequency response functions (FRFs) between the axle boxes and the evaluated points, together with the use of measured accelerations of axle boxes. The FRFs are identified by the preliminary tests in the car depots or factories. The technique is applied to the vibration prediction of the bogies for several types of vehicles, and the differences between the predicted PSDs and measured ones are evaluated.