

**Evaluation of the Critical Wind Speed of Overturning  
in Consideration of the Measured Lateral Vibrational Acceleration**

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The critical wind speed of overturning obtained by the RTRI detailed equation, which is a method of static analysis of railway vehicle overturning due to cross wind, tends to be lower than that intuitively estimated because it assumes the superposition of the worst conditions. In order to improve the accuracy of the evaluation, the previous researches focused on the evaluation of the aerodynamic forces that have the greatest influence on the calculation results, but little study on the lateral vibrational inertia force has been conducted. Therefore, in order to evaluate the critical wind speed of overturning reflecting the actual conditions, we examined the evaluation method based on the measured values of the lateral vibrational acceleration.