

**A Method of Calculating Running Resistance using Commercial Train Data Obtained
by a Train Data Collection Device**

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Running resistance is one of important factors to design train performance and to plan speed profiles. Running resistance is also an important factor to analyze energy consumption, because it causes majority of energy consumption. This paper proposes a method of calculating running resistance under various conditions without the running tests by using commercial train data obtained by a train data collection device. This paper verifies the proposed method by a running test result. This paper further presents running resistance under various conditions calculated by the proposed method.