

Study on a Prediction Model for Wayside Noise of Shinkansen in Cut Sections

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This paper introduces a prediction model for wayside noise of Shinkansen in cut sections. In order to develop the model, sound reflection between the cutting surface of the section and the car surface should be taken into consideration. The effect of the sound reflection was examined by acoustic experiments with scale-models and it could be simulated by using an image sources model. The validity of the prediction model using the image sources model was confirmed by comparing the measured results with the calculation results from an acoustic point of view.