Study on Prediction Model of Wayside Noise Incorporating the Effect of Building and Overbridge around the Railway Line

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The wayside noise along the railway line is affected by the situations surrounding the line e.g. existence of buildings, overbridges, etc. This is because the wayside noise is affected by the reflection and screening due to the structures on the path from the noise source to the noise receiving point. In this paper, scale model experiments are carried out in order to examine the effects of both a building and an overbridge on the wayside noise. Then, a prediction model has been developed in order to evaluate the effects due to the building and the overbridge on the wayside noise, and the effect is estimated in parametric study using the prediction model.