

Correction

Correction: Bi et al. Field Measurement and 2.5D FE Analysis of Ground Vibrations Induced by High-Speed Train Moving on Embankment and Cutting. *Buildings* 2025, 15, 4034

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There was an error in the original publication [1]. Regarding the content presented in Section 2 in this publication, it has been noted that the experimental part was taken from a previously published article, without explicitly stating that it originated from another paper.

A correction has been made to 2. Field Experiment of Ground Vibrations, 2.1. Test Overview, Paragraph 1:

The field test data and experimental details presented in this section are taken from the work of Connolly et al. [4]. The embankment and cutting test sections were both selected from the Paris-Brussels HSR line, located northeast and northwest of the village of Braffe, Belgium, respectively, as shown in Figure 1. The test sections adopted a ballasted track structure consisting of UIC 60 rails ($\rho = 60.0 \text{ kg/m}$), pre-stressed concrete sleepers, a 0.3 m thick ballast layer, and a 0.2 m thick sub-ballast layer. One week prior to field testing, the track was ground to a smooth finish—mitigating track irregularity effects on HST-induced ground vibrations to negligible levels. To make the test data more comparable, both for the embankment and cutting sections, the train passages running in the same direction were selected for analyzed, and the speed of which is about 294.7 km/h. For recording the ground vibrations, the weeds on the surface were cleared, the soil surface was leveled, and the sensors were placed closely to the ground. Vibration measurements were acquired using SM-6 vibration geophones (sensitivity: $28.8 \text{ V/(m}\cdot\text{s}^{-1})$), and a data acquisition system sampling at 1000.0 Hz. The vibration geophones applied for measurement have been factory-calibrated and verified with a reference vibration source prior to installation. The raw signals were first visually inspected for anomalies, and then a band-pass filter was adopted to eliminate low-frequency drift and high-frequency noise. The velocity signals recorded by the sensors were numerically differentiated to obtain acceleration time histories. A linear detrend was applied to each record before performing spectral analysis. The peak ground vibration acceleration (PGA) was defined as the maximum absolute value within a single train passage. This standardized procedure ensures consistency and comparability of the reported vibration levels.

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The authors state that the scientific conclusions are unaffected. This correction was approved by the Academic Editor. The original publication has also been updated.

Reference

1. Bi, J.; Gao, G.; Chen, Z.; Zhang, J.; Chen, J.; Li, Y. Field Measurement and 2.5D FE Analysis of Ground Vibrations Induced by High-Speed Train Moving on Embankment and Cutting. *Buildings* **2025**, *15*, 4034. [[CrossRef](#)]

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