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AN EQUIVALENT MOVING FORCE MODEL FOR
CONSIDERATION OF HUMAN-STRUCTURE INTERACTION

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Highlights

- Human-structure interaction (HSI) is incorporated into a moving force model.
- A simplified analytical approach is developed for determining the equivalent system properties.
- A more comprehensive numerical approach is used to determine the optimum equivalent system properties.
- Empirical expressions are proposed to incorporate stochastic HSI into a moving force model.
- The approach means that accurate vibration assessment can be performed with currently available commercial engineering software.

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