

**A Theoretical Model on Micro-pressure Wave Emission
Considering the Effects of Geography around a Tunnel Portal**

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In this paper, the author introduced a simple model of prediction for a micro-pressure wave. A theoretical analysis was made of a micro-pressure wave produced when a high-speed train enters a tunnel, considering the effects of geography around a tunnel portal. The analytical results indicated that the micro-pressure wave generated by interaction of a point monopole and a dipole with rigid walls is solvable by use of the Green's function. The prediction by the model was consistent with the model experiments in which the exact Green's function was determined by the mirror image method.