

## **Practical Method for Setting Nonlinear Response Spectrum for Seismic Design of Railway Bridges and Viaducts**

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A Non-linear Response Spectrum Method is one of the methods used to calculate the seismic response values of railway bridges and viaducts. In this study, a method for expressing the non-linear response spectrum was proposed using a relatively simple mathematical equation. In addition, a procedure for estimating the parameters to be input into this equation was proposed. The proposed method was applied to seismic records. The result confirmed that the proposed method can automatically represent the overall trend of the spectra of seismic records while significantly reducing the number of parameters used compared to conventional methods.