

**Nomograph for Seismic Damage Estimation of Railway RC Viaducts with
Various Deformation Capacities**

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The nomograph of seismic damage estimation proposed by the authors in the past is targeted for a general railway bridge, whose damping property is depending on its natural period. Therefore, it might not be applied to the structures with different damping characteristics. Then, a new nomograph for characteristics estimating a seismic damage of structures with various damping has been proposed. This method evaluates response ductility simply by using PGA, PGV, the natural period of structure, yield seismic intensity, and damping property. Consequently, the proposed nomograph can estimate the damage of the structures having an arbitrary damping property and natural period, considering resonant motion due to an earthquake.