

Estimation of Radiation Damping Considering Nonlinearity of Ground Based on a Pile Foundation Experiment

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In order to calculate the radiation damping value by taking the non-linearity of the ground into account, a method to calculate the value of the damping from moment to moment was proposed by using the relationship between the dynamic load-displacement and static load-displacement. To estimate the radiation damping value by using the proposed method, the dynamic and static experiments with model pile foundations were conducted through horizontal loading. The experiments adopted the frequency and the amplitude as the parameters. As a result, it was go and out that the relationship among the amplitude, frequency as well as the damping coefficient can be evaluated from moment to moment.