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Dynamics of rigid bodies under pure rocking (Article)

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Abstract

In the present research one addresses the problem of rocking of rigid blocks moving on a foundation base subjected to a horizontal ground motion. To this purpose, one analyses and discusses basic reference models, thereafter, one tests the pure rocking response of rigid blocks from an experimental point of view by means of a shaking table; experiments are developed on rectangular aluminium blocks of various sizes and geometry ratios.

Author keywords

Dynamics; Experimental tests; Laboratory data; Non-linear behaviour; Rigid blocks; Rocking response; Shaking table; Unilateral constraints

Indexed keywords

Engineering controlled terms: Experiments; Foundations; Geometry

Engineering uncontrolled terms: Experimental tests; Laboratory data; Non-linear behaviour; Rigid blocks; Rocking response; Shaking table; Unilateral constraints

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