Pushover Tests on Intermediate-Scale Models of Masonry Buildings with Rigid Floor

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Abstract:

This paper presents the results of experimental tests on reduced-scale models of multistory masonry buildings with rigid floors. The laboratory investigation includes pushover tests of the aforementioned buildings and quasi-static, monotonic and cyclic tests of basic elements (panels and columns) of common masonry structures. Such tests highlight a noticeable inelastic behavior of the masonry and, consequently, an appreciable ductility of the models. The presented laboratory experimentation does not allow an immediate extension of the experimental results to the behavior of actual structures, but it qualitatively highlights the investigated phenomenon. Furthermore, it allows the verification of the reliability of the numerical results provided by the non-linear theoretical models developed by researchers in recent years.

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