عنوان مقاله:
3D time history analysis of RC structures versus commercial methods with attention to the modeling of floor slabs near versus far-fault earthquakes

محل انتشار:
اولین کنفرانس بین المللی ساختمان و ساز شهری در مجاورت گسل‌های فعال (سال:1390)

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خلاصه مقاله:
commercial softwares as ETABS and SAP commonly used for the analysis of apartment building assume the slabs as a rigid or semi rigid membrane and only roughly low for the slab's flexural stiffness using the concept of effective width. These assumptions when further simplified adopting a 2D frame method that ignores the torsional effects may produce results that are very different to the full 3D finite element modeling in particular when time-history nonlinear dynamic behavior is sought. The errors could be larger in near fault earthquakes that often excite higher vibration modes. recent major earthquakes northridge 1994, kobe 1995, chi-chi 1999 and bam 2003, etc. have shown that many near fault ground motions possess prominent acceleration pulses that results in different structural responses for common medium to high-rise buildings.

کلمات کلیدی:
flexural stiffness, floor slab, near field earthquake, wall-frame structures

لینک نتیجه نمایشی مقاله در سایت سپیلیکا:
https://www.civilica.com/Paper-ICCVAF01-ICCVAF01_086.html

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