## عنوان مقاله:

Comparison of the response of the MDOF systems under near fault pulse-type ground motion and its closed form approximation

## محل انتشار:

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## خلاصه مقاله:

Near fault ground motions, especially which have forward directivity effects, can be caused more destructive damages on the structures. In last decades, this fact has been revealed that a large pulse, which placed at the beginning part of the time history of the velocity of the ground motions is the responsible for these damages. In fact, the remarkable part of the kinetic energy will be transferred by the velocity pulse. So, the appropriate approximation of the velocity pulse with mathematical formulas let investigate the response of the structures under them. In this paper, six records of three world-wide major earthquakes will be fitted by pulse type B closed form approximation. then the time history of the displacement of the top storey of an 11-storey building, which presents the multi degree of freedom structure, will be calculate under the ground motion s records and their fitted model. The results demonstrate the appropriate approximation of the real response from the viewpoints of the maximum value and the time of the vibration

## کلمات کلیدی:

near-fault ground motion, forward directivity, velocity pulse, closed form approximation

## لینک ثابت مقاله در پایگاه سیویلیکا: