

## Journal of engineering mechanics

Deskripsi Lengkap: <https://lib.ui.ac.id/detail?id=20471261&lokasi=lokal>

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### Abstrak

#### **ABSTRAK**

In this paper, we present the results of a study of the temporal 3D characteristics of earthquake ground motion at a single point, which are a completely different set from the frequently used spatial 3D characteristics. A ground motion trajectory from the 1995 Kobe earthquake is analyzed, based on the concept of temporal curvature and torsion. Kinematic turning and twisting of the ground motion are found to have occurred in the form of temporal curvature and torsion pulses. These pulses have typical durations of 100 or 20 ms, respectively. These two types of pulses offer some detailed characterization of the ground acceleration behaviors.