Strong motion in the disaster belt during 1995 Kobe Earthquake,Estimated by data of the direction of collapsed wooden houses.

Eijirou Minami [1], Yoshiaki Hisada [2], Masanori Sakotani [3]

[1] Architecture, Eng, Kogakuin Univ, [2] Kogakuin Univ., [3] Architecture,Eng,Kogakuin Univ

http://kouzou.cc.kogakuin.ac.jp/

Dominant directions of strong motion in the disaster belt during the 1995 Hyogoken-Nanbu earthquake (Kobe) are investigated using the data for the directions of collapsed/tilted wooden houses (Matsuda and Takemura, 1995), and applying the bi-linear inelastic seismic response analyses. The observed records at JR Takatori and Fukiai are used as input motions. The Takatori and Fukiai records have large pulse-like displacements directing to the south and north, respectively. Therefore, the maximum directions of the response of the wooden house model are south and north, respectively, which are consistent with those of the observed directions of collapsed/tilted wooden houses in the two areas.