



ESTIMATED CAUSE OF EXTREME ACCELERATION RECORDS AT THE KIK-NET IWTH25 STATION DURING THE 2008 IWATE-MIYAGI NAIRIKU EARTHQUAKE, JAPAN

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ABSTRACT: During the 2008 Iwate-Miyagi Nairiku earthquake in Japan ($M_j=7.2$), extremely high accelerations of about 4G, where G is acceleration due to gravity, were recorded at the KiK-net IWTH25 station. Field investigations, shake-table experiments, and numerical simulations were conducted to reproduce the acceleration time histories of the strong motion record. It is highly probable that the influence of the interaction of the station house with the underlying ground was included in the surface record.

Key Words: the Iwate-Miyagi Nairiku Earthquake in 2008, KiK-net IWTH25 Ichinoseki-Nishi, Rocking motion with uplift, FEM