

QUANTIFICATION OF AVAILABLE ESCAPE TIME DURING AN EARTHQUAKE USING INSTANTANEOUS INSTRUMENTAL SEISMIC INTENSITY

Yasuko KUWATA¹ and Sakae SAITO²

¹ Member of JAEE, Associate Professor, Department of Civil Engineering, Kobe University, Kobe, Japan, kuwata@kobe-u.ac.jp
² Graduate student, Department of Civil Engineering, Kobe University, Kobe, Japan 098t116t@stu.kobe-u.ac.jp

ABSTRACT: This paper attempts to measure the time available to escape during an earthquake. Because human behavior during a quake has been studied in terms of seismic intensity on the Japan Meteorological Agency (JMA) scale, we used instantaneous instrumental seismic intensity, which can evaluate a sequence of seismic ground motion by the seismic intensity. The available escape time was analyzed using records from different earthquake types and quantified by source distance, magnitude, and earthquake type.

Key Words: Available escaping time, instantaneous instrumental seismic intensity, earthquake type, real-time earthquake disaster mitigation